REIMAGINING THE CLIMATE MIGRATION PARADIGM: BRIDGING CONCEPTUAL BARRIERS TO CLIMATE MIGRATION RESPONSES

BY

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Relatively little scholarly literature has examined the ways in which conflicting conceptual frameworks have contributed to a general failure to address the increasingly ineluctable, increasingly complex challenges associated with climate change-induced migration. This Article addresses this gap by critiquing two prevailing paradigms of climate migration and by laying the groundwork for a hybrid approach. I begin by chronicling the emergence and dimensions of the climate migration quandary currently confronting the international community. I proceed to analyze the underlying premises and fundamental flaws of humanitarianism and prudentialism as frameworks for conceptualizing climate migration. Under humanitarian theories, which draw on Kantian cosmopolitanism and Rawlsian distributive justice, climate migrants are actors with fundamental rights and constrained choices; however, in practice, they are often treated as objects of injustice and support. Meanwhile, prudential theories integrate principles of political realism, economics, and securitization that privilege national interests with limited rational bases and at-times alarmist undercurrents. This Article explores the prospects for a hybrid framework that draws on the merits of humanitarianism and prudentialism yet incorporates new principles in formulating, implementing, and enforcing climate migration responses.

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I. INTRODUCTION

> *Climate action is paramount. Climate change is having far-reaching effects on agricultural productivity and food security. It is among the main reasons for the record numbers of people compelled to migrate . . .*
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> — William Lacy Swing, U.N. Migration Director General[1]

Human migration precipitated by environmental and climatic changes can be traced back to the dawn of human civilization.[2] It was not until the last half-century, however, that scholarly and political interest converged on the connection between environmental shifts and human movements. In the 1970s, Lester Brown of the World Watch Institute coined the term "environmental refugee,"[3] which Essam El-Hinnawi later elaborated in a 1985 United Nations Environment Programme (UNEP) policy paper.[4] Brown and El-Hinnawi, along with contemporary

[1] *Climate Change Is A Key Driver of Migration and Food Insecurity*, U.N. CLIMATE CHANGE (Oct. 16, 2017), https://perma.cc/Y7CK-HACK.

[2] *See* discussion *infra* Part II.

[3] Richard Black, *Environmental Refugees: Myth or Reality?* 1 (UNHCR, Working Paper No. 34, 2001), https://perma.cc/B2L9-MYRT.

[4] Essam El-Hinnawi, *Environmental Refugees*, 4, UNEP Doc. UNEP(02)/E52 (1985) (defining "environmental refugees" as "those people who have been forced to leave their

researchers, policymakers, and advocates, brought the phenomenon of environmental migration to the fore. In the last decade, academic and political interest in the relationship between the environment and migration has resurged,[5] with burgeoning evidence that anthropogenic climate change has led and will continue to lead to unprecedented levels of displacement and relocation. Forecasts of climate migration range from 200 million to one billion migrants by 2050,[6] with more than 143 million internal migrants projected for sub-Saharan Africa, South Asia, and Latin America alone.[7]

Climate migration arises at the intersection of two conceptually complex and politically contentious subjects: climate change and migration. Climate migration occurs when changes in climatic conditions, or their impacts on weather events or natural environments, induce, at least in part, humans to relocate.[8] Its complexity stems from its multicausal, multilateral, and multidisciplinary nature. It is multicausal both in the sense climate change manifests itself in multitudinous drivers of migration—chief among them, global warming, sea level rise, floods, droughts, ice melt, and extreme weather events[9]—and in the sense climate change may be just one of many factors behind migration decisions.[10] It is multilateral, impacting countless communities from the

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traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life").

[5] *Migration and the Climate Crisis: The UN's Search for Solutions*, UN NEWS (July 31, 2019), https://perma.cc/H87Q-F7ED ("In the past decade, there has been a growing political awareness of the issues around environmental migration, and increasing acceptance that this is a global challenge.").

[6] CHRISTIAN AID, HUMAN TIDE: THE REAL MIGRATION CRISIS 6 (2007), https://perma.cc/TYF4-BATF (estimating that 250 million people will be permanently displaced by climate change-related phenomena by 2050); OLI BROWN, MIGRATION AND CLIMATE CHANGE, NO. 31, at 11 (2008) (citing Oxford University Professor Norman Meyers's estimate of 200 million climate migrants by 2050 as a widely accepted figure); Ambassador L. Craig Johnstone, U.N. Deputy High Comm'r for Refugees, Remarks on Planning for the Inevitable, the Humanitarian Consequences of Climate Change 3 (Nov. 12, 2008), https://perma.cc/295C-4S9A (citing estimates that climate change will displace between 250 million and 1 billion people by 2050).

[7] KANTA KUMARI RIGAUD ET AL., WORLD BANK, GROUNDSWELL: PREPARING FOR INTERNAL CLIMATE MIGRATION, at xvii, xix, xxi, 110 (2018), https://perma.cc/5E6P-THSG.

[8] *See id.* at vii (defining "climate change-induced migration" as when an individual moves in large part due to "the slow-onset impacts of climate change on livelihoods owing to shifts in water availability and crop productivity" or sudden-onset events "such as sea level rise or storm surge"); John Podesta, *The Climate Crisis, Migration, and Refugees*, BROOKINGS INSTITUTION (July 25, 2019), https://perma.cc/9MV5-3VTL (recognizing that climate migration often occurs when an individual is forced to move because of the "sudden onset" of a weather event like flooding, forest fires, droughts, and intensified storms).

[9] JAMES MORRISSEY, ENVIRONMENTAL CHANGE AND FORCED MIGRATION: A STATE OF THE ART REVIEW 4 (2009) (identifying sea level rise, increased frequency of extreme weather events, droughts, and floods as major drivers of population displacement); *see* Richard B. Alley et al., *Ice-Sheet and Sea-Level Changes*, 310 SCIENCE 456, 456 (2005) (explaining that global warming induces sea level rise which has substantial societal impacts).

[10] *See* MORRISSEY, *supra* note 9, at 2 (discussing climate change effects as a driver of human movement); *see also infra* notes 29–32 and accompanying text (describing non-

local to the global.[11] It is multidisciplinary in that it brings together multiple bodies of law—environmental, immigration, and international human rights and humanitarian—and conceptual fields—sociopolitical, scientific, and ethical.[12]

In part because of the multiple stakeholders, interests, and jurisdictions involved, responses to climate migration have been fragmented and fraught. International dialogue has largely reached an impasse. The U.N. Global Compact for Migration, confirmed in 2018, was hailed as the first major global migration policy to address climate change;[13] yet, it is voluntary and non-binding,[14] and a number of key states, including several European states, the United States, and Australia, have chosen not to adopt it.[15] At the regional and national levels, there has likewise been scant progress.[16] New Zealand's landmark recognition of the impact of climate change as grounds for asylum claims remains the exception, and it eventually dropped its plan to establish a special visa program for Pacific Islanders displaced by sea level rise, primarily because of a prevailing desire of prospective migrants to be able

environmental factors that combine with climate change to influence migration decision-making).

11 MORRISSEY, *supra* note 9, at 28; *see Migration and the Climate Crisis: The UN's Search for Solutions*, *supra* note 5 (noting increasing recognition that climate migration is a global problem).

12 *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY, WORKING GROUP II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 458 (2007) [hereinafter IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT] (describing the "cross-cutting" implications of climate change for people's livelihood assets).

13 Regarding the adoption of the U.N. Global Compact for Migration, U.N. General Assembly President María Fernanda Espinosa Garcés claimed victory on behalf of the Intergovernmental Conference: "We came here with a clear goal and we have achieved it." Press Release, Intergovernmental Conference on the Global Compact for Migration, Speakers Call for Robust Implementation of Landmark Global Compact to Protect Migrants Worldwide, as Intergovernmental Conference Concludes in Marrakech, U.N. Press Release DEV/3378 (Dec. 11, 2018) [hereinafter U.N. Global Compact Press Release]. Similarly, in closing remarks, Special Representative of the Secretary-General for Migration Louise Arbour said, "For the first time in the history of the United Nations, we have been able to tackle an issue that was long seen as out of bounds for a truly concerted global effort." *Id.*

14 *See* G.A. Res. 73/195, Global Compact for Safe, Orderly and Regular Migration (Dec. 19, 2018) (certain states and organizations expressly approved of the non-binding nature of the U.N. Global Compact for Migration); U.N. Global Compact Press Release, *supra* note 13 (quoting Georgian diplomat Karlo Sukharulidze's approval that the "non-legally binding nature of the Global Compact allows for the consideration of national interests, alongside modern challenges to be faced globally," and International Organization for Migration Director General Antonio Vitorino's celebration of the Global Compact as a "truly historic achievement [that] respects the sovereignty of States and . . . is not legally binding").

15 *See* Carolyn Beeler, *UN Compact Recognizes Climate Change as Driver of Migration for First Time*, WORLD (Dec. 11, 2018), https://perma.cc/35KD-ULU9 ("Several EU countries joined the US and Australia in opting not to adopt the document.").

16 Jayla Lundstrom, *Climate Change Is Altering Migration Patterns Regionally and Globally*, CTR. FOR AMERICAN PROGRESS (Dec. 3, 2019), https://perma.cc/6CFJ-LRPM (providing examples of proposed national legislation to address migration as a result of environmental factors).

to remain in their own states.[17] Relative to the rate and magnitude of climate change, efforts to adapt law and policy to accommodate or mitigate climate migration have been minimal.

Academic discussion has perhaps been more robust, albeit similarly segregated. Climate migration scholarship has tended to fall into one of several camps. An early and enduring wave of scholarship has been terminological: scholars have set forth semantic, political, and legal considerations for the various terms invoked to describe climate migration.[18] Other scholars have focused on laying out potential legal and policy solutions, which vary widely in scope and feasibility.[19] Relatively absent from such scholarship is inquiry into the role of conceptual frameworks in perpetuating an intellectual disconnect between growing evidence of the unparalleled effects of climate change on migration and a general failure to produce a proportionate, multipronged response. In this Article, I address this gap in climate migration literature by critiquing two prevailing paradigms of climate migration and proposing the bases for a hybrid approach. In Part II, I provide a brief account of the climate migration predicament now before the international community. In the subsequent two Parts, I analyze two leading frameworks for viewing climate migration. Part III examines the animating principles and fundamental flaws of humanitarianism as conventionally conceived. Under humanitarian theories, which draw on Kantian cosmopolitanism and Rawlsian distributive justice, climate migrants are actors with rights and choices; however, in practice, they are often treated as objects of injustice and support. Part IV explores the underlying premises and shortcomings of prudentialism, which privileges national welfare. Finally, in Part V, I lay the foundation for a new framework of prudential humanitarianism, which offers workable guiding principles for legal and policy responses to climate migration. Motivating this framework and setting it apart from its precursors is the head-on recognition that climate migrants are both victims and actors—victims of anthropogenic climate

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[17] *See* Thomas Manch, *Humanitarian Visa Proposed for Climate Change Refugees Dead in the Water*, STUFF (Aug. 29, 2018), https://perma.cc/BLM6-8CPH (describing New Zealand's recognition of climate change as grounds for an asylum visa); W.H., *Why Climate Migrants Do Not Have Refugee Status*, ECONOMIST (Mar. 6, 2018), https://perma.cc/F44E-UQGN (recognizing that New Zealand is the first country to recognize climate change as a reason for an asylum visa).

[18] These terms include environmental displacement, environmental migration, climate-induced migration, climate change-induced migration, environmentally induced forced migrants, ecological or environmental refugees, climate change migrants, and climate refugees. Mostafa Mahmud Naser, *Climate Change-Induced Displacement: Definitional Issues and Concerns*, CHI.-KENT J. ENV'T ENERGY L., 2011–2012, at 1, 4 n.12, 5. The various terms have proven to be rather nebulous, and scholars and practitioners have not come to a consensus on a preferred term or definition, in part because "the displacement of peoples can be—and usually is—the product of a number of interrelated factors." Calvin Bryne, *Climate Change and Human Migration*, 8 U.C. IRVINE L. REV. 761, 765 (2018).

[19] Proposed solutions differ along many lines, ranging from international to domestic, binding to voluntary, and integrational to *sui generis*. *See* Naser, *supra* note 18, at 16–18, 24–27, 46.

change for which they are scarcely responsible and of global ambivalence to the harms of climate change, and actors insofar as they have agency, even when constrained in extreme situations in which climate change renders states or settlements uninhabitable. In doing so, I hope to help to lay the groundwork for bridging theoretical and political discourses and for fostering empirically grounded, equality-driven, and actor-oriented responses to one of the most formidable challenges facing our generation.

II. THE RISE AND LANDSCAPE OF CLIMATE MIGRATION

Climate change is the single biggest threat to life, security and prosperity on Earth.

— Patricia Espinosa, U.N. Climate Change Executive Secretary[20]

A. The Rise of Climate Migration

Since *Homo sapiens* began roaming Earth approximately 300 thousand years ago,[21] climate and other environmental forces have shaped human migration patterns. In fact, until relatively recently—about fifteen thousand years ago—the environment was a chief driver of human migration, with changes in physical terrain and natural resources shaping prospects for human survival and recharting the map of human settlement.[22] The spectrum of shifts ranged from long-term evolutions, through ice ages and warm periods, to short-term fluctuations, taking place within and across years.[23] Depending on the circumstances, humans adjusted to these shifts either through *in situ* adaptation[24] or through migration.[25]

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[20] *UN Climate Change Launches First-Ever Annual Report*, UNITED NATIONS (Apr. 30, 2018), https://perma.cc/M34Q-HY97.

[21] Ewen Callaway, *Oldest* Homo Sapiens *Fossil Claim Rewrites Our Species' History*, NATURE (June 7, 2017), https://perma.cc/KJA4-5Y5B.

[22] Axel Timmermann & Tobias Friedrich, *Late Pleistocene Climate Drivers of Early Human Migration*, 538 NATURE 92, 92–93 (2016).

[23] *Id.* at 92–94.

[24] "*In situ* adaptation" refers to "adaptation that is undertaken within or for a place rather than involving the movement of people away from that place . . . ." Douglas K. Bardsley & Graeme J. Hugo, *Migration and Climate Change: Examining Thresholds of Change To Guide Effective Adaptation Decision-Making*, 32 POPULATION & ENV'T 238, 241 (2010) (emphasis added). *In situ* adaptation is more likely to occur during early exposures to environmental stresses. *Id.*

[25] *See* PHILIPP BLOM, NATURE'S MUTINY: HOW THE LITTLE ICE AGE OF THE LONG SEVENTEENTH CENTURY TRANSFORMED THE WEST AND SHAPED THE PRESENT 19–20 (2019) (identifying famine and weather as key drivers of migration for many European communities during the Little Ice Age); JARED DIAMOND, COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED 12–13 (2005) (discussing how historically, societies were "driven over the brink of collapse" when the climate changed); BRIAN M. FAGAN, FLOODS, FAMINES, AND EMPERORS: EL NIÑO AND THE FATE OF CIVILIZATIONS, at xvi–xvii (2009) (describing the "strong correlation" between drastic climatic shifts and historic events for civilizations, and how societies respond); BRIAN M. FAGAN, THE GREAT WARMING: CLIMATE CHANGE AND THE RISE AND FALL

Changes in climatic conditions periodically uprooted entire human populations.[26] Such migration took the form of long-term, large-scale movements across wide regions, as in the Northern Hemisphere during the "Medieval Warm Period" spanning approximately the ninth and thirteenth centuries and the "Little Ice Age" spanning approximately the sixteenth and nineteenth centuries.[27] The far-reaching ramifications of these historical periods of climate migration—displacing and relocating persons en masse and destabilizing and even catalyzing the collapse of civilizations—may portend what present-day climate change, if left unmitigated, may become.[28]

OF CIVILIZATIONS, at xi, xiii (2008) (covering five centuries of climate change and its impact on humans between 800 to 1300 A.D., including how humans subsequently adapted, migrated, or collapsed). *See generally* BRIAN M. FAGAN, THE LITTLE ICE AGE: HOW CLIMATE MADE HISTORY 1300-1850, at xv–xvi (rev. ed. 2019) (describing the shift in exploration and settlement patterns of the Norse voyagers during the Medieval Warm Period and Little Ice Age due to shifts in rainfall and temperature, and volcanic eruptions); BRIAN M. FAGAN, THE LONG SUMMER: HOW CLIMATE CHANGED CIVILIZATION, at xiv (2004) (discussing how "[t]he only solution was to move . . ." for human populations to survive climate change events) [hereinafter THE LONG SUMMER]; MICHAEL H. GLANTZ, SOCIETAL RESPONSES TO REGIONAL CLIMATE CHANGE: FORECASTING BY ANALOGY 2, 6 (1988) (studying the impacts of numerous extreme climate events on the environment and society); JEAN M. GROVE, THE LITTLE ICE AGE 394–407 (1988) (discussing the impacts of climatic change on the lives of Icelanders, Norwegians, Scotlanders, and Norse farmers in Greenland); H.H. LAMB, CLIMATE HISTORY AND THE MODERN WORLD 161–62 (1995) (linking the unidirectional migration of people during the decline of the Roman empire to drought and harsh winters); Andrew J. Dugmore et al., *Norse Greenland Settlement: Reflections on Climate Change, Trade, and the Contrasting Fates of Human Settlements in the North Atlantic Islands*, ARCTIC ANTHROPOLOGY, 2007, at 12, 12–13 (examining the desertion of the Norse settlements in Greenland and the role of climate change in this phenomenon); Gerald H. Haug et al., *Climate and the Collapse of Maya Civilization*, 299 SCIENCE 1731, 1731 (March 2003) ("[D]ata suggest that a century-scale decline in rainfall put a general strain on resources in the region, which was then exacerbated by abrupt drought events, contributing to the social stresses that led to the Maya demise."); Neil Pedersen et al., *Pluvials, Droughts, the Mongol Empire, and Modern Mongolia*, 111 PNAS 4375, 4376 (2014) (finding evidence that drought in part spurred the Mongols to migrate and to establish an expansive empire in the thirteenth century).

[26] *See* THE LONG SUMMER, *supra* note 25, at xiii ("Ever since the beginnings of farming some 12,000 years ago, people have lived at the mercy of cycles of cooler and wetter, warmer and drier climate.")

[27] While detailing these historical periods of mass migration lies beyond the ambit of this Article, it is worth noting here that several scholars have provided such comprehensive accounts. *See generally supra* note 25 and accompanying text; *see also* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, CONTRIBUTION OF WORKING GROUP I TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 133-36 (J.T. Houghton et al. eds., 2001) [hereinafter IPCC WG I CONTRIBUTION TO THE THIRD ASSESSMENT REPORT] (finding some evidence of a Medieval Warm Period and a Little Ice Age in parts of the Northern Hemisphere).

[28] Indeed, radiative forcing due to increases in greenhouse gases, for instance, have reached record levels unseen in more than ten thousand years. *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 3-4, 24 (2007) [hereinafter IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT].

This is not to downplay the established role of non-environmental impetuses for migration, which include, *inter alia*, poverty, socioeconomic inequality, political insecurity, ethnic conflict, and warfare.[29] Climate change combines with and compounds these economic, social, and political phenomena which, in turn, can give rise to migration.[30] For instance, as historian Philipp Blom notes, during the Little Ice Age, harsh winters and decreased solar activity led to famine that, compounded by epidemics and warfare, left many European countryside-dwellers with "no recourse but to migrate."[31] More recently, climate change-accelerated scarcity of food and natural resources, along with political insecurity and violence, has led to a wave of northbound migration from Central America.[32] To this day, it would be naïve and counterproductive to approach migration as if triggered by environmental and climatic variables in a vacuum.

Changes in environmental and climatic conditions have historically, albeit not exclusively, impelled human migration.[33] Those most likely to move have tended to be poor, directly subsistent on agriculture or natural resources, and located in regions especially susceptible to environmental degradation and extreme weather events, such as low-lying coastal zones and arid regions.[34] In other words, environmental and climatic changes

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[29] *See* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 373 (citing "unmet resource requirements, congestion, poverty, political and economic inequity, and insecurity" as factors making human settlements especially vulnerable to the effects of climate change) (citation omitted); Dana Zartner Falstrom, *Stemming the Flow of Environmental Displacement: Creating a Convention To Protect Persons and Preserve the Environment*, 1 COLO. J. INT'L ENV'T L. & POL'Y 1, 3 (2001) (acknowledging non-environmental reasons for migration, such as "war, ethnic hatred, and political turmoil, among many other reasons"); Erik Solheim & William Lacy Swing, *Migration and Climate Change Need To Be Tackled Together*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Sept. 7, 2018), https://perma.cc/J9QG-EK8U ("One billion people alive today are migrants, having moved within or beyond their national borders. They have done so for a variety of complex reasons, including population pressure, a lack of economic opportunities, environmental degradation, and new forms of travel. Combined, these factors are contributing to human displacement and unsafe migration on an unprecedented scale. And the levels of both will only rise as the effects of climate change gradually erode millions of people's livelihoods.").

[30] *Cf.* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 373 (describing how "climate change is not the only stress on human settlements, but rather it coalesces with *other* stresses," which "could be the trigger for serious disruptive events and impacts") (citations omitted); David D. Zhang et al., *Global Climate Change, War, and Population Decline in Recent Human History*, 104 PROC. NAT'L ACAD. SCI. U.S. 19214, 19219 (2007) (asserting that in severe cases, economic strain caused by global warming "would cause conflict for resources and intensify social contradictions and unrest").

[31] BLOM, *supra* note 25, at 19–20.

[32] Nina Lakhani, *'People are Dying': How the Climate Crisis Has Sparked an Exodus to the US*, GUARDIAN (July 29, 2019), https://perma.cc/UC36-VRW4.

[33] *See* Podesta, *supra* note 8 ("Although there are few instances of climate change as the sole factor in migration, climate change is widely recognized as a contributing and exacerbating factor in migration . . . .").

[34] Francesco Castelli, *Drivers of Migration: Why Do People Move?*, 25 J. TRAVEL MED. 1, 4 (2018); *see* Falstrom, *supra* note 29, at 4 (providing examples of communities "forced to move from their homes and traditional habitats due wholly or in part to environmental reasons"); *see also infra* note 95 and accompanying text (underscoring the disproportionate

have tended to have disparate impacts, with repercussions magnified by socioeconomic status and location, among other factors.[35] The socioeconomically disadvantaged, geographically vulnerable, and culturally and politically marginalized have been most susceptible to the negative externalities of environmental changes.[36] The next Part discusses how the Industrial Revolution ushered in changes in climate that could not be characterized as mere vicissitudes arising from natural processes and that wielded unprecedented influence over migration patterns.[37]

B. The Drivers of Climate Migration

Dissecting the environment and climate into their discrete components and tracking their individual effects on migration reveal a turning point in migration around the Industrial Revolution. Prior to the Industrial Revolution, environmental migration often outstripped climate migration—displacement and relocation arose mainly as a result of environmental degradation or extreme weather phenomena.[38] By the turn of the twentieth century, however, migration catalyzed by natural environmental variance was giving way to migration ensuing from anthropogenic climate change.[39] The Industrial Revolution set in motion an ongoing acceleration in greenhouse gas emissions.[40] By the 1980s, the effects of industry on greenhouse gas emissions patterns were statistically significant.[41] It is likely no coincidence that the term

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effects of droughts on rural communities dependent on agriculture, including effects on migration decision-making).

[35] *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, WORKING GROUP II CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT OF THE INTERNATIONAL PANEL ON CLIMATE CHANGE 6–8 [hereinafter IPCC WG II CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT]. For instance, migration decisions vary with many non-climatic factors even for residents of low-lying atoll states facing submersion by sea level rise. A 2009 study of climate migration from Kiribati and Tuvalu found that "climate change overlays pre-existing pressures—overcrowding, unemployment, environmental factors and economic development . . . ." Jane McAdam & Maryanne Loughry, *We Aren't Refugees*, INSIDE STORY (June 30, 2009), https://perma.cc/N2PU-J29G.

[36] *See* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 55 ("Hardships from extreme events disproportionately affect those who are socially and economically disadvantaged, especially the poor and indigenous peoples of North America."); *id.* at 492 ("Poverty is identified as the largest barrier to developing the capacity to cope and adapt.") (citation omitted); *cf.* Elizabeth Fussell et al., *Recovery Migration to the City of New Orleans After Hurricane Katrina: A Migration Systems Approach*, 35 POPULATION & ENV'T 305, 307 (2014) (noting that "social statuses, such as gender and socioeconomic resources, affect which individuals and households are more vulnerable to hazards' impacts").

[37] *See infra* notes 39–40 and accompanying text.

[38] Falstrom, *supra* note 29, at 3.

[39] *Id.*

[40] IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 2.

[41] *What Goes Up*, ECONOMIST, Sept. 21, 2019, at 27.

"environmental refugee" was coined and popularized around this turning point.[42] In 1992, the U.N. Framework Convention on Climate Change (UNFCCC) was established to achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[43] However, in the two decades since, anthropogenic greenhouse gas emissions worldwide have escalated, potentially slowing only during the global economic crisis of 2008.[44] Numerous studies have proven this intensification in greenhouse gas emissions stems from the surge in fossil fuel combustion.[45] The burning of coal, oil, and gas has disrupted Earth's ecological equilibrium, increasing the concentration of greenhouse gases in Earth's atmosphere and, in turn, propelling the planet's average surface temperature to new peaks.[46] A 2018 National Oceanic and Atmospheric Administration study found the direct impact of greenhouse gases on global warming has risen 140 percent since 1750, with forty percent of that rise occurring in the past twenty-six years.[47]

The inexorable advance of global warming and climate change more broadly has rendered human populations susceptible to climatic stresses and has resulted in record levels of climate migration.[48] In recent years, the concept of the "climate migrant" as an alternative to "environmental refugee" and as a subset of "environmental migrants" and "environmentally displaced persons" has gained popularity.[49] Mounting evidence indicates that more and more people worldwide will become climate migrants in the coming decades. According to the U.N. Deputy High Commissioner for Refugees, climate change will force up to 250 million people to move by 2050, a number in line with many researchers' estimates.[50] The Internal Displacement Monitoring Centre reported that, since 2009, on average, natural diasters have displaced more than

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[42] *See supra* notes 3–4 and accompanying text.

[43] United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107, art. 2.

[44] *See* J.G.J. Olivier et al., PBL Netherlands Env't Assessment Agency, Trends in Global CO_2 and Total Greenhouse Gas Emissions: 2017 Report 9 (2017) (highlighting the slowdown in emission increases during the global economic recession); Kuishang Feng et al., *Drivers of the US CO_2 Emissions 1997-2013*, 6 Nature Comm. 1, 4 (2015) (attributing a 9.9 percent decrease in U.S. carbon dioxide emissions between 2007 and 2009 principally to the concurrent economic recession).

[45] *See* IPCC WG I Contribution to the Fourth Assessment Report, *supra* note 28, at 2–3 (concluding that the ongoing increase in carbon dioxide concentration is largely due to fossil fuels).

[46] *See id.* at 5, 10 (explaining the linear warming trend over the last fifty years and the relationship with increase of greenhouse gas concentrations).

[47] James H. Butler & Stephen A. Montzka, *The NOAA Annual Greenhouse Gas Index (AGGI)*, Nat'l Oceanic & Atmospheric Admin. (2018), https://perma.cc/7VGJ-8EF9.

[48] *See* Camillo Boano, Forced Migration Online, FMO Research Guide on Climate Change and Displacement 3 (Sept. 2008), https://perma.cc/NU8R-8YNF (discussing the effect of climate change on human subsistence).

[49] Brown, *supra* note 6, at 13–15.

[50] *See supra* note 6 and accompanying text.

twenty-four million people every year.[51] Since 1980, the United States alone has sustained 258 weather and climate disasters with an aggregate cost of more than $1.75 trillion; the annual frequency and cost of disasters have progressively increased over the decades.[52] Across the Pacific, the apocalyptic potential of climate change is becoming a reality—sea level rise has engulfed eight Pacific islands in the last half-century and threatens to overtake low-lying atoll states, such as Tuvalu, Micronesia, Kiribati, the Marshall Islands, and the Solomon Islands.[53] Some scientists predict that Tuvalu could be completely submerged within the next half-century.[54]

To demonstrate climate change's extensive effects on human migration, this Part provides a breakdown of climate change's dimensions and their distinct implications for migration. Not all—or, more precisely, none—of climate change's manifestations are created equal. Emerging research on climate change points to the distinct yet intertwined impacts of environmental and climatic shifts arising out of climate change. According to the Intergovernmental Panel on Climate Change (IPCC), the U.N. body dedicated to providing an objective account of climate change and the authoritative source of scientific data on climate change, the primary drivers of climate migration include 1) global warming, 2) sea level rise, 3) floods, 4) droughts and desertification, 5) glacier, sea ice, and land ice melt, and 6) extreme weather and climate events.[55] The following Parts examine these key dimensions of climate change to contextualize subsequent discussion of the rise of climate migration.

1. Global Warming

Global warming is both a signifier and a driver of anthropogenic climate change, simultaneously manifesting a transformation in Earth's climate system and contributing to other climatic changes, such as sea level rise, environmental degradation, glacial retreat, and extreme weather events.[56] Numerous studies show that Earth's climate system is warming at a prodigious pace, with ripple effects across physical and

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[51] INTERNAL DISPLACEMENT MONITORING CTR. & NORWEGIAN REFUGEE COUNCIL, GLOBAL REPORT ON INTERNAL DISPLACEMENT (2020), https://perma.cc/5MS7-RS7G.

[52] Adam B. Smith, *2010-2019: A Landmark Decade of U.S. Billion-Dollar Weather and Climate Disasters*, NOAA CLIMATE (Jan. 8, 2020), https://perma.cc/5L2Z-LBX3.

[53] *See* Alice Klein, *Eight Low-Lying Pacific Islands Swallowed Whole by Rising Seas*, NEW SCIENTIST (Sept. 7, 2017), https://perma.cc/XRQ8-ZJUV (citing studies by researchers Simon Albert and Patrick Nunn); UNHCR et al., *Climate Change and Statelessness: An Overview*, at 1 (2009), https://perma.cc/L4Z3-LZZS (discussing "sinking-island states").

[54] Susin Park, UNHCR, *Climate Change and the Risk of Statelessness: The Situation of Low-lying Island States*, at 1, PPLA/2011/04 (May 2011).

[55] *See generally* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 21–57 (describing various dimensions of climate change); IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 26–64 (same).

[56] *See* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 2–16 (exploring different drivers and observations of climate change); Zhang et al., *supra* note 30, at 19219.

biological systems in the environment.[57] The National Oceanic and Atmospheric Administration found that 2019 was the second warmest year since 1880 and that the last five years were the five warmest years since 1880.[58] The IPCC estimates the global average surface temperature increased by 0.85 degrees Celsius between 1880 and 2012,[59] and if left unmitigated, the global average surface temperature will continue to rise and reach up to 4.8 degrees Celsius above pre-industrial levels by 2100.[60] This escalation in temperature has destabilized numerous ecosystems and threatens to thrust Earth's climate system into a new, precarious equilibrium, if it has not already.[61]

Global warming has impacted weather patterns worldwide, reshaping local and regional surface temperature and precipitation patterns, as well as the frequency, severity, and variability of extreme weather events.[62] Global warming has accelerated the thermal expansion of oceans and the melting of glaciers, ice sheets, and ice shelves, leading to record sea level rise. If the rate of sea level rise continues to accelerate at the current pace, the global average sea level may rise up to sixty-five centimeters by 2100, which could ravage coastal settlements and, through a domino effect, could disrupt inlying communities.[63] Changes in

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[57] *See* IPCC WG II Contribution to the Fourth Assessment Report, *supra* note 12, at 8–16 (attributing various effects of climate change on physical and biological systems to global warming).

[58] Nat'l Oceanic & Atmospheric Admin. Nat'l Ctrs. for Env't Info., *Global Climate Report – Annual 2019*, Nat'l Oceanic & Atmospheric Admin. (Jan. 2020), https://perma.cc/YMF3-S87R.

[59] Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 5 (2013) [hereinafter IPCC WG I Contribution to the Fifth Assessment Report] (assessing the understanding of past climate variations, using paleoclimate reconstructions as well as climate models of varying complexity).

[60] Intergovernmental Panel on Climate Change, Climate Change 2014: Mitigation of Climate Change, Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 8 (2014) [hereinafter IPCC WG III Contribution to the Fifth Assessment Report].

[61] Zhang et al., *supra* note 30, at 19219 (conjecturing that unprecedented global warming "might break the balance of a human ecosystem that has long been established at a lower temperature," as well as precipitate "many secondary and tertiary effects [that] cannot be predicted based on current knowledge").

[62] Boano, *supra* note 48, at 16; *see* Intergovernmental Panel on Climate Change, Managing the Risks of Extreme Weather Events and Disasters to Advance Climate Change Adaptation, Special Report of the Intergovernmental Panel on Climate Change 9 (2012) (summarizing that "changes in exposure, vulnerability, and climate extremes" that result from "natural climate variability, anthropogenic climate change, and socioeconomic development" can affect climate extremes); IPCC WG I Contribution to the Fourth Assessment Report, *supra* note 28, at 310–12 (providing examples of recent extreme events).

[63] *See* Katie Weeman & Patrick Lynch, *New Study Finds Sea Level Rise Accelerating*, NASA (Feb. 13, 2018), https://perma.cc/Y9FK-G6WL; *see also* IPCC WG I Contribution to the Third Assessment Report, *supra* note 27, at 16 (projecting an increase of 0.09 meters in the global average sea level to 0.88 meters between 1900 and 2100 for the complete range of IPCC Special Report on Emission Scenarios).

temperature and moisture distribution have already compromised soil fertility and freshwater quality and availability, threatening to destabilize agriculture systems and ecosystems.[64] Furthermore, emerging attribution research suggests anthropogenic global warming, as opposed to natural warming and cooling cycles, is driving up the rate and magnitude of extreme weather events more than ever before.[65] As the subsequent Subparts reveal, innumerable drastic changes in the environment and climate have at least some roots in global warming. Wielding profound and far-reaching influence over the living environment, global warming has been and portends to be a principal catalyst of climate migration.

2. Sea Level Rise

The global average sea level remained stable from about the beginning of the first millennium until the late nineteenth century.[66] During the twentieth century, the global average sea level rose about 1.7 millimeters per year; since 1993, the rate of rise has been approximately three millimeters per year, with thermal expansion and glacier, sea ice, and land ice melt each accounting for about half of this rise.[67] While the discrepancy of a few millimeters might seem negligible, the cumulative impact could be devastating, most imminently for residents of low-lying coastal regions and low-lying atoll states[68] and secondarily for populations farther inland, where the former may seek to relocate.[69] In recent decades, eight Pacific islands have already fallen victim to coastal erosion and inundation; likely next in line are low-lying atoll states, such as Tuvalu, Micronesia, Kiribati, the Marshall Islands, and the Solomon

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64 *See* IPCC WG I Contribution to the Fourth Assessment Report, *supra* note 28, at 133–49; Togeer Ahmed et al., *Water-Related Impacts of Climate Change on Agriculture and Subsequently on Public Health: A Review for Generalists with Particular Reference to Pakistan*, 13 Int'l J. Env't Res. & Pub. Health 1051 (2016) (depicting the effects of climate change and extreme weather events on agriculture and livelihood).

65 *See* Quirin Schiermeier, *Droughts, Heatwaves and Floods: How To Tell When Climate Change is To Blame*, Nature (July 30, 2018), https://perma.cc/YJT6-HPJ6 (providing statistics documenting the increase of different extreme weather events).

66 IPCC WG I Contribution to the Fourth Assessment Report, *supra* note 28, at 409.

67 *Id.*; *see also* Alex de Sherbinin et al., *The Vulnerability of Global Cities to Climate Hazards*, 19 Env't Urban 39, 39, 42 (2011) (examining the vulnerabilities of three major coastal cities—Mumbai, Rio de Janeiro, and Shanghai—to climate hazards, such as sea level rise); Susan Hanson et al., *A Global Ranking of Port Cities with High Exposure to Climate Extremes*, 104 Climatic Change 89, 90, 96 (2011) (projecting increasing flood exposure of the world's port cities with populations exceeding one million people). *See generally* Robert J. Nicholls, *Planning for the Impacts of Sea Level Rise*, Oceanography, Sept. 2011, at 144, 144 ("Global sea levels rose 17 cm through the twentieth century, and are likely to rise more rapidly through the twenty-first century when a rise of more than 1 m is possible.").

68 It is especially concerning that nearly forty percent of the global population lives within one hundred kilometers of the coast. *See* Ocean Conference, *Factsheet: People and Oceans*, ¶ 1, U.N. (May 2017), https://perma.cc/8YWH-CYJ5.

69 Podesta, *supra* note 8.

Islands.[70] For residents of these islands, migration often becomes the only viable strategy.[71] Moreover, sea level rise will likely displace the one-third of the world's population who lives in low-lying coastal regions, concentrated in the densely populated coastal areas of Asian developing states.[72] These states—namely Bangladesh, China, India, and Vietnam—are susceptible to storm surges and inundation.[73] If the global average sea level continues to rise at the current rate, with greenhouse gas emissions and global warming persisting unabated, millions of people worldwide will be displaced every year.[74]

Countless states are also confronting questions about internal and international migration induced by sea level rise. In the United States, sea level rise is expected to affect net migration for all states and more than half of counties in this century, with millions of people in coastal areas projected to retreat to landlocked areas "unprepared to accommodate this wave of coastal migrants."[75] On the current trajectory of sea level rise, up to $106 billion worth of coastal property nationwide could be below sea level by 2050, and up to $507 billion worth by 2100.[76] In addition to devastating coastal settlements, sea level rise will likely

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[70] *See supra* note 53 and accompanying text; Bonnie Docherty & Tyler Giannini, *Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees*, 33 HARV. ENV'T L. REV. 349, 355 (2009).

[71] IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 492 ("[M]igration is the only option in response to sea-level rise that inundates islands and coastal settlements.").

[72] *See* Barbara Neumann et al., *Future Coastal Population Growth and Exposure to Sea-Level Rise and Coastal Flooding— A Global Assessment*, 10 PLOS ONE (June 2015), https://perma.cc/E6A5-522N.

[73] *See* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 366, 373, 476 (enumerating the effects of intense rains and floods on low-lying coastal areas of Asian developing states); Susmita Dasgupta et al., *The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis* 27 (World Bank Pol'y Research Working Paper No. 4136, Feb. 2007), https://perma.cc/EZV5-SQTS (finding that East Asia and Southeast Asia comprise the region in the developing world that is most severely impacted by sea level rise, and that Vietnam in particular is experiencing severe, potentially catastrophic impacts); Docherty & Giannini, *supra* note 70, at 356 (discussing the susceptibility of coastal zones of certain Asian states, such as Bangladesh); Emma Newburger, *Coastal Flooding Could Hit Nearly 20% of Global GDP as Climate Change Accelerates Storms, Sea Level Rise*, CNBC (July 30, 2020), https://perma.cc/34SY-84NR (listing densely populated, low-lying coastal areas that are inordinately affected by storm surges and inundation, including Bangladesh, the Indian states of West Bengal and Gujarat, and southeast China); *see also Cold Command*, ECONOMIST, Sept. 21, 2009, at 46 (observing that "fiercer storms and rising sea levels [are] threatening huge, sinking megacities such as Jakarta, Manila, Mumbai and Shanghai").

[74] IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 12, 41.

[75] Matthew E. Hauer, M*igration Induced by Sea-Level Rise Could Reshape the U.S. Population Landscape*, 7 NATURE CLIMATE CHANGE 321, 321–22 (2017).

[76] KATE GORDON ET AL., RISKY BUSINESS: THE ECONOMIC RISKS OF CLIMATE CHANGE IN THE UNITED STATES: A CLIMATE RISK ASSESSMENT FOR THE UNITED STATES 4 (2014); *see also* Newburger, *supra* note 73 (citing research published in *Nature*'s *Scientific Reports* projecting that coastal flooding could damage up to $14.2 trillion's worth of assets, including homes and infrastructure).

precipitate wetland degradation and saltwater intrusion into the surface water and groundwater of fertile land, threatening agriculture, infrastructure, and other factors underlying the impetus for migration.[77] Sea level rise has thus already been catastrophic for entire states and is expected to continue. Some researchers have found that, even if greenhouse gas emissions and global warming rates stabilized, inertia in climate systems, including the thermal inertia of oceans, could slow the re-equilibration of sea levels.[78]

3. Floods

As discussed above, global warming and sea level rise have intensified the inundation of coastal zones.[79] With one-third of the global population currently residing in low-lying coastal regions, many of which are in developing states,[80] flood exposure is a formidable problem. Floods include river floods, flash floods, urban floods, and sewer floods, and can arise from a number of factors, including intense or enduring precipitation, snowmelt, and ice jams.[81] Floods, in turn, can result in mass displacement and migration. For example, one study found a third of Vietnam's population is already exposed to floods,[82] and a sea level rise of just one or two meters could displace more than seven million people or fourteen million people, respectively, from the Mekong delta.[83] Floods trigger population movements within and across state borders through multiple mechanisms. Floods disrupt industry, settlement, and society in various ways: they damage infrastructure and other property, strain transport and commerce, diminish agricultural and economic productivity, harm human health and livelihoods, and even take human lives.[84] A 2019 Internal Displacement Monitoring Centre study predicted that global river flooding alone could displace as many as fifty million

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77 *See* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT *supra* note 28, at 44, 916 (explaining the ways that climate change will interact with costal zones).

78 *See* IPCC WG I CONTRIBUTION TO THE THIRD ASSESSMENT REPORT, *supra* note 63, at 16–17, 90, 133, 405, 558 (describing the various effects of the thermal inertia of the oceans); *Bad News, Good News*, NASA EARTH OBSERVATORY (Apr. 24, 2006), https://perma.cc/U94H-8HH6 (delineating the impact of thermal inertia in the climate system on the process of reaching a new equilibrium).

79 *See supra* notes 71–73 and accompanying text; *see also* Newburger, *supra* note 73 (citing research published in *Nature*'s *Scientific Reports* finding that thirty-two percent of global coastal area flooding will be attributable to regional sea level rise).

80 *See* Neumann et al., *supra* note 72, at 19.

81 IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 186.

82 Mook Bangalore et al., *Exposure to Floods, Climate Change, and Poverty in Vietnam*, 3 ECON. DISASTERS & CLIMATE CHANGE 79, 82, 89 (2018).

83 KOKO WARNER ET AL., IN SEARCH OF SHELTER: MAPPING THE EFFECTS OF CLIMATE CHANGE ON HUMAN MIGRATION AND DISPLACEMENT 14–15 (2009).

84 IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 18, 55, 333, 337, 447.

people annually by 2100, which would be five times the average of ten million people annually from 1976 to 2005.[85]

4. Droughts and Desertification

Global warming and sea level rise are also engendering and intensifying droughts and desertification worldwide.[86] Drought encompasses meteorological drought (precipitation well below average), hydrological drought (low river flows and water levels in rivers, lakes, and groundwater), agricultural drought (low soil moisture), and environmental drought (a combination of the above).[87] While drought is a natural phenomenon common to many inhabited regions, rising temperatures, declining precipitation, and salinization of surface water and groundwater are intensifying droughts, desertification, and freshwater scarcity.[88] Droughts and desertification have especially impacted Africa and Asia. The IPCC forecasts water shortages impacting up to 250 million people in Africa by 2020 and more than one billion people in Asia by the mid-twenty-first century.[89] Severe droughts have also been documented in Australia, North America, and Europe.[90] Worldwide, the number of extreme drought events per century and average drought duration are expected to increase anywhere from tenfold to thirtyfold by the end of the twenty-first century.[91] This acceleration in desertification and water scarcity could displace nearly 135 million people worldwide by 2045.[92] People are expected to relocate in higher numbers in search of clean water for direct consumption and agricultural use, as

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[85] Megan Rowling, *Flooding is Predicted To Displace 50 Million People a Year by 2100. What's Being Done?*, WORLD ECON. FORUM (Dec. 13, 2019), https://perma.cc/5GH8-PXG7 (citing a 2019 Internal Displacement Monitoring Centre study).

[86] *See* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 8 (describing the relationship between increased temperatures and droughts and the increase in sea level rise).

[87] IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 186–87.

[88] *See* VALÉRIE MASSON-DELMOTTE ET AL., INTERNATIONAL PANEL ON CLIMATE CHANGE: GLOBAL WARMING OF 1.5°C SPECIAL REPORT. AN IPCC SPECIAL REPORT ON THE IMPACTS OF GLOBAL WARMING OF 1.5 °C ABOVE PRE-INDUSTRIAL LEVELS AND RELATED GLOBAL GREENHOUSE GAS EMISSION PATHWAYS, IN THE CONTEXT OF STRENGTHENING THE GLOBAL RESPONSE TO THE THREAT OF CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT, AND EFFORTS TO ERADICATE POVERTY 196–200 (2019) (discussing the effects of drought in many countries).

[89] IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 13.

[90] *See* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 310–11 (exploring the effects of droughts in different countries).

[91] IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 187.

[92] *Land and Human Security*, U.N. CONVENTION ON COMBAT DESERTIFICATION, https://perma.cc/3S6X-4MYP (last visited Oct. 15, 2020).

well as fertile and habitable land.[93] According to the United Nations, desertification may displace approximately fifty million people within the next decade.[94]

In recent decades, droughts have induced waves of migration, most notably exoduses of migrant workers out of rural communities subsistent on agriculture to urban centers.[95] Receiving urban centers, too, have suffered from droughts, with some threatened by water scarcity.[96] Temperature extremes accompanying global warming have often compounded droughts into extreme heat waves, as in Europe in the summer of 2003.[97] Furthermore, the reciprocal interplay between droughts and political or economic crises—such as food insecurity—exacerbates the impact of droughts on human welfare and migration.[98] With droughts and desertification expected to become more widespread and more acute in future years as a consequence of anthropogenic climate change, more people worldwide may soon experience the repercussions of these phenomena.

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93 *See id.* (recognizing that "[u]nless we change the way we manage our land, in the next 30 years we may leave a billion or more vulnerable poor people with little choice but to fight or flee").

94 *Desertification and Its Effects*, UNITED NATIONS, https://perma.cc/XS7R-P7XA (last visited Oct. 15, 2020).

95 *See Land and Human Security*, *supra* note 92 (detailing the consequences of individuals losing "productive land" in rural areas); *The U.N. Decade for Deserts and the Fight Against Desertification: Impact and Role of Drylands*, U.N. CONVENTION TO COMBAT DESERTIFICATION, https://perma.cc/T8BF-XWRJ (last visited Oct. 15, 2020) (describing factors that affect desertification); *see, e.g.*, RIGAUD ET AL., *supra* note 7, at 30 (reporting "[v]ery strong case-based evidence from [a] range of Sub-Saharan African countries" of the likelihood of increases in labor migration and in rural to urban migration as a result of "extreme heat events, droughts, dryness, and precipitation variability" in drylands); Lori M. Hunter et al., *Rainfall Patterns and U.S. Migration from Rural Mexico*, 47 INT'L MIGRATION REV. 874, 888, 893–95 (2013) (finding that rainfall shortages and droughts, particularly when non-severe or non-immediate, may spur emigration from regions of rural Mexico that have historically been a major source of emigrants); Natalie Tobert, *The Effect of Drought Among the Zaghawa in Northern Darfur*, 9 DISASTERS 213, 218, 223 (2007) (describing the impact of drought on labor migration out of rural areas into urban centers in Sudan); *cf.* Clark Gray & Valerie Mueller, *Drought and Population Mobility in Rural Ethiopia*, 40 WORLD DEV. 134, 134, 140 (2012) (concluding that drought increased the likelihood of labor migration for men in rural highland Ethiopia, especially men from land-poor households). *But see* Hunter et al., *supra*, at 895–96 (noting that rainfall excess, more than rainfall deficit, is likely to induce emigration from regions of rural Mexico that have not historically contributed many emigrants).

96 *See* DAVID J. WRATHALL ET AL., WATER STRESS AND HUMAN MIGRATION: A GLOBAL, GEOREFERENCED REVIEW OF EMPIRICAL RESEARCH 17 (2018) (detailing the relationship of water stress and migration).

97 *See* IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 311–12 (describing the European Heatwave in 2003).

98 *See Land and Human Security*, *supra* note 92; *see, e.g.*, INTER-AMERICAN DEV. BANK ET AL., FOOD SECURITY AND EMIGRATION: WHY PEOPLE FLEE AND THE IMPACT ON FAMILY MEMBERS LEFT BEHIND IN EL SALVADOR, GUATEMALA AND HONDURAS 3, 54 (2017) (highlighting links between food insecurity caused in part by "prolonged dry spells and droughts" and migration in Central America).

5. Glacier, Sea Ice, and Land Ice Melt

Similar to global warming, the melting of glaciers, sea ice, and land ice is both a consequence of and a contributor to climate change. Sea ice melt exposes blue waters, which absorb more solar energy than white ice does, creating a positive feedback loop of surface temperature rise and sea ice melt known as the "sea ice-albedo climate feedback mechanism."[99] The acceleration of glacier, sea ice, and land ice melt is a principal driver of sea level rise.[100] Moreover, more frequent, more rapid, and more severe glacial lake flooding, especially in the Himalayan region, has already resulted in numerous fatalities, as well as the destruction of property, infrastructure, agriculture, and forests in downstream regions, consequently triggering migration.[101]

Glacier, sea ice, and land ice melt has other, less evident, but nevertheless significant effects. Evolving melting patterns pose a direct threat to the more than one-sixth of the world's population that relies on meltwater for their water supply.[102] While accelerated glacier melt may initially result in increased summer flows in certain river systems, as the glaciers melt away, flows may eventually subside.[103] With drought problems already projected for regions heavily dependent on meltwater during the long dry season, such as the Andes and the Hindu Kush Himalayan region,[104] millions of inhabitants could be adversely affected.[105] Meanwhile, a decline in snowmelt during the melt period could depress freshwater supplies critical to the existence of lower-lying communities.[106]

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99 *Ice Would Suffice*, ECONOMIST (Sept. 21, 2019), https://perma.cc/3MBE-XHJT; Judith A. Curry et al., *Sea Ice-Albedo Climate Feedback Mechanism*, 8 J. CLIMATE 240, 240 (1995).

100 IPCC WG I CONTRIBUTION TO THE THIRD ASSESSMENT REPORT, *supra* note 63, at 16 (attributing the projected rise in the global average sea level by 0.09 meters to 0.88 meters between 1990 and 2100 under the IPCC Special Report on Emissions Scenarios "primarily to the thermal expansion and loss of mass from glaciers and ice caps").

101 *See* DINESH ACHARYA ET AL., CONSTRUCTING RESERVOIR DAMS IN DEGLACIARIZING REGIONS OF THE NEPALESE HIMALAYAS: THE GENEVA CHALLENGE 2018, at 30 (2018), https://perma.cc/A25H-2CSA (describing the destruction resulting from flooding and the forced relocation of individuals as a result).

102 IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 187.

103 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY, CONTRIBUTION OF WORKING GROUP II TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 553–54 (2001).

104 *See* IPCC, CLIMATE CHANGE AND WATER: IPCC TECHNICAL PAPER VI, at 43 (Bryson Bates et al. eds., 2008) (describing meltwater in the Andes region); T.P. Barnett et al., *Potential Impacts of a Warming Climate on Water Availability in Snow-Dominated Regions*, 438 NATURE 303, 306 (2005) (describing meltwater in the Himalayan region).

105 Barnett et al., *supra* note 104, at 306.

106 *See* CLIMATE CHANGE AND WATER: IPCC TECHNICAL PAPER VI, *supra* note 104, at 127 (providing examples of mountainous regions that are dependent on glacier runoff for water and the effects of dry seasons on that water supply); IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 5 (discussing the decline of glaciers and snow in both hemispheres).

6. Extreme Weather and Climate Events

Anthropogenic climate change has contributed to a rise in the rate, prevalence, and intensity of extreme weather events, which become disasters when communities or ecosystems cannot withstand them effectively.[107] Extreme weather events entail the rare extremes of weather phenomena, including floods, droughts, heat waves, tropical cyclones, and other heavy precipitation events.[108] A pattern of extreme weather events may become an extreme climate event, "especially if it yields an average or total that is itself extreme."[109] Attribution research indicates anthropogenic global warming is increasing the rate and intensity of extreme weather phenomena more than ever before.[110]

Extreme weather and climate events often have numerous side-effects, such as inundation, erosion, and saltwater intrusion, which can lead to lasting harms to infrastructure, agriculture, natural resources, and human life.[111] Faced with depleted resources and threatened livelihoods, survivors of extreme weather and climate events may decide or be compelled to resettle elsewhere. In 2016 alone, extreme weather events displaced approximately twenty-four million people within their own country.[112] A well-documented example of extreme weather events leading to internal migration, with divergent consequences along racial and socioeconomic lines, is Hurricane Katrina. Making landfall on the Gulf of Mexico coast of the United States in 2005, Hurricane Katrina led to the evacuation and displacement of approximately one million people.[113] More than 300 thousand dwellings in the Gulf Coast region sustained damage, and another more than 300 thousand were destroyed.[114] Such housing damage and destruction hindered the ability of former residents to return.[115] Rates of return to New Orleans were

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107 IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 299.

108 *Id.* at 7–8. The IPCC defines "extreme weather event" as "an event that is rare at a particular place and time of year." *Id.* at 945. Specific examples from the last two decades include the record-setting heat wave in Europe in summer 2003 and the devastating hurricane season in the North Atlantic in 2005. *See id.* at 311–12.

109 *Id.* at 946.

110 *See* Schiermeier, *supra* note 65 (providing statistics depicting the increase of different extreme weather events around the world).

111 IPCC WG I CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 28, at 916.

112 Somini Sengupta, *Climate Change Is Driving People from Home. So Why Don't They Count as Refugees?*, N.Y. TIMES (Dec. 21, 2017), https://perma.cc/MM5L-9N26.

113 *See* James R. Elliott & Jeremy Pais, *Race, Class, and Hurricane Katrina: Social Differences in Human Responses to Disaster*, 35 SOC. SCI. RES. 295, 302 (2006).

114 FED. EMERGENCY MGMT. AGENCY (FEMA), SUMMARY REPORT ON BUILDING PERFORMANCE: HURRICANE KATRINA 2005, at 1-5 (2006).

115 *See generally* Elliot & Pais, *supra* note 113, at 315–16 (discussing the likelihood of return to New Orleans by residents displaced during Hurricane Katrina); Fussell et al., *supra* note 36, at 306 (describing the widespread damage that displaced New Orleans residents during Hurricane Katrina).

lower for black and less affluent residents than for white and more affluent residents.[116]

More recently, the 2017 Atlantic hurricane season led to a wave of international migration. The 2017 Atlantic hurricane season was one of the most devastating in the region to date.[117] The hurricane season displaced and rendered homeless approximately three million people in sixteen countries and territories,[118] including more than 1.7 million in the wake of Hurricane Irma[119] and nearly 150 thousand as a result of Hurricane Maria.[120] Many of those displaced migrated to neighboring countries and even farther overseas to the United States.[121] By the time a year had passed since Hurricane Maria, almost 160 thousand residents of Puerto Rico had relocated to the continental United States.[122] Many of these migrants were middle-income, whereas those who remained in Puerto Rico tended to be either from lower-income households likely unable to afford to relocate overseas or from higher-income households who were able to weather the hurricane.[123]

The continued rise in extreme weather and climate events as a new normal could be cataclysmic or, at minimum, lead to an increase in both internal and international migration "in a brutal and direct manner."[124]

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116 Black residents were more likely than white residents to have relocated to more distant locations, such as Atlanta, Dallas, and Houston, and less likely to return to New Orleans after Hurricane Katrina. WILLIAM H. FREY ET AL., BROOKINGS INSTITUTION, RESETTLING NEW ORLEANS: THE FIRST FULL PICTURE FROM THE CENSUS 1 (2007). The likelihood of returning to New Orleans was influenced not only directly by income, but also by housing and employment prospects and "place-based capital." *See* Elliott & Pais, *supra* note 113, at 309, 318 (explaining that only five percent of New Orleans residents returned to their homes a month after the storm); Fussell et al., *supra* note 36, at 307–08 (describing how "place-based capital," such as "proximity to kith and kin and place-based amenities," motivated displaced residents to return to New Orleans); *id.* at 308 (discussing how different "human capital considerations" influenced whether displaced residents returned to New Orleans).

117 INT'L DISPLACEMENT MONITORING CTR. & NORWEGIAN REFUGEE COUNCIL, GLOBAL REPORT ON INTERNAL DISPLACEMENT 42 (2018), https://perma.cc/83YE-6GTU.

118 *Id.* at 43.

119 UNICEF, CHILDREN UPROOTED IN THE CARIBBEAN: HOW STRONGER HURRICANES LINKED TO A CHANGING CLIMATE ARE DRIVING CHILD DISPLACEMENT 8 (2019), https://perma.cc/7NME-KYAL.

120 INT'L DISPLACEMENT MONITORING CTR. & NORWEGIAN REFUGEE COUNCIL, *supra* note 117, at 43.

121 *Id.* at 44.

122 *See* JENNIFER HINOJOSA & EDWIN MELÉNDEZ, CENTRO: CTR. FOR PUERTO RICAN STUDIES, PUERTO RICO EXODUS: ONE YEAR SINCE HURRICANE MARIA 1 (2018), https://perma.cc/3CYC-X7G6 (citing data from the Puerto Rico Department of Health and the U.S. Census Bureau).

123 Megan Cerullo, *Behind the Mass Protests in Puerto Rico, A Tale in Economic Woe*, CBS NEWS (July 19, 2019), https://perma.cc/S252-G75Z.

124 Etienne Piguet, *Climate Change and Forced Migration* 5 (New Issues in Refugee Research, Research Paper No. 153, 2008), https://perma.cc/6L6R-AD42 [hereinafter Piguet, *Climate Change*].

C. The Birth of the Climate Migrant

Although anthropogenic climate change did not become a well-recognized concept among scholars, advocates, and practitioners until the late twentieth century, the link between the environment and migration has long attracted scholarly attention. In the early twentieth century, a school of geographic thought that became known as "environmental determinism" emerged.[125] Environmental determinists identified broad patterns in human traits and behaviors and attempted to frame them through quasi-scientific, neo-Lamarckian theories about environmental conditions, including climate.[126] For example, Ellen Churchill Semple's seminal theoretical treatise, *Influences of Geographic Environment*, attempted to show Earth's influence on trends in human mobility and settlement.[127] According to Semple, Nature "stimulated" human qualities and "lured" people into different kinds of actions.[128] Semple's theories of human migration and civilization, as with many other environmental determinist theories, had limited explanatory function. Semple's project of tracing the evolution of each "race" to the environments it had occupied since its origins was dubious at best and racist at worst, casting humans as passive objects of environmental influence and glossing over the effects of social, political, and economic forces and institutions.[129]

While later scholars eschewed this logic of environmental determinism, research on the influence of the environment and climate on human behavior, including migration, came back in vogue in the late twentieth century. Advances in scientific understanding of and interest in anthropogenic climate change, in conjunction with an increase in the prevalence and visibility of the impact of the environment and climate on human mobility, especially in developing states, fostered a new discourse of environmental migration.[130] Initially, this discourse centered on a

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125 *See generally* Richard Peet, *The Social Origins of Environmental Determinism*, 75 ANNALS ASS'N AM. GEOGRAPHERS 309, 310 (1985) (describing the rise of environmental determinism as a modern geographic version of Social Darwinism).

126 *See* ARILD HOLT-JENSEN, GEOGRAPHY ITS HISTORY AND CONCEPTS 65 (1980). *See generally* ELLEN CHURCHILL SEMPLE, INFLUENCES OF GEOGRAPHIC ENVIRONMENT: ON THE BASIS OF RATZEL'S SYSTEM OF ANTHRO-GEOGRAPHY 22 (1911).

127 *See* SEMPLE, *supra* note 126, at 226 (1911); *see also* Peet, *supra* note 125, at 320 (analyzing Semple's theory that "[m]igration resulted from a Malthusian 'natural increase of population beyond local subsistence' and a Spencerian 'development of the war spirit in the effort to secure more abundant subsistence'") (quoting SEMPLE, *supra* note 126, at 226).

128 SEMPLE, *supra* note 126, at 212, 265, 280, 428; *see also id.* at 1 ("Man is a product of the earth's surface. . . . [T]he earth has mothered him, fed him, set him tasks, directed his thoughts, confronted him with difficulties that have strengthened his body and sharpened his wits, given him his problems of navigation or irrigation, and at the same time whispered hints for their solution.").

129 *Cf.* Peet, *supra* note 125, at 321 ("Poetic license . . . enabled [Semple] only to suggest what would otherwise be immediately dismissed as nonscientific.").

130 *See* MORRISSEY, *supra* note 9, at 4 ("With theories of climate change growing in credence and with climate scientists putting forward ever more alarming predictions regarding the potential impacts of such change, a growing number of authors put forward estimates of both the existing number of 'environmental refugees' and of potential future refugee flows

semantic debate with conceptual, political, and legal ramifications: that is, how to refer to and understand people driven—primarily or secondarily, directly or indirectly—to migrate.[131] While the term "environmental refugee" became popular in the late 1980s and remains in use,[132] many scholars have criticized the application of the term "refugee" to the environmental migration context; the international refugee regime does not confer legal status on people displaced by environmental or climatic factors.[133] By the 1990s, migration scholars

in a warmer world."); Docherty & Giannini, *supra* note 70, at 352 (observing that acknowledgement of the emerging issue of climate migration has grown since around 1990, when the IPCC began to publish scientific reports calling attention to the effects of climate change on migration); Etienne Piguet, *From "Primitive Migration" to "Climate Refugees": The Curious Fate of the Natural Environment in Migration Studies*, 103 ANNALS ASS'N AM. GEOGRAPHERS 148, 153 (2013) (tracing the resurgence in interest in the environment in migration studies during the 1980s and 1990s in part to the publication of reports by UNEP, the Worldwatch Institute, and the IPCC, followed by scientific debates, conferences, and publications) [hereinafter Piguet, *From Primitive Migration*]; Sengupta, *supra* note 112 (reporting a 2017 *Science* study's finding of a correlation between increases in asylum applications in the European Union and increased temperatures in the asylum seekers' states of origin).

131 *See supra* note 18 and accompanying text.

132 *See supra* note 4 and accompanying text. For contemporary use of the term "refugee" in the environmental and climate migration context, see, for example, Frank Biermann & Ingrid Boas, *Preparing for a Warmer World: Towards a Global Governance System To Protect Climate Refugees* 10 GLOB. ENV'T POL. 60, 61 (2010) (detailing the "plight of 'climate change refugees'"); Laura Story Johnson, *Environment, Security and Environmental Refugees*, 1 J. ANIMAL & ENV'T L. 222, 223 (2010) (providing projections on the number of environmental refugees in future years); Jullee Kim, *Reframing Humans (Homo Sapiens) in International Biodiversity Law To Frame Protections for Climate Refugees*, 42 WM. & MARY ENV'T L. & POL'Y REV. 805, 814 (2018) (explaining that the term "environmental refugee" is not used as an extension of refugee law but rather as an advocacy strategy because it raises awareness to the severity of climate change and the environmental factors contributing to these migrations); David Keane, *The Environmental Causes and Consequences of Migration: A Search for the Meaning of "Environmental Refugees"*, 16 GEO. INT'L ENV'T L. REV. 209, 210 (2004) (exploring the definition of "environmental refugee" and the current statistics of environmental refugees worldwide).

133 Article 1 of the UNHCR Convention Relating to the Status of Refugees defines "refugee" as any person who,

> owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.

U.N. High Commissioner for Refugees Res. 2198 (XXI), at 14 (July 28, 1951). The UNHCR expressly rejects the terms "environmental refugee" and "climate refugee" because they do not conform with the international legal definition of "refugee." *See* Piguet, *Climate Change*, *supra* note 124, at 3. For scholarly critiques of the (mis)use of the term "refugee" in environmental and climate change contexts, see, for example, JoAnn McGregor, *Climate Change and Involuntary Migration: Implications for Food Security*, 19 FOOD POL'Y 120, 126 (1994) (noting that the current international legal definition of the term "refugee" excludes "[m]igrations attributed to climate change"); Astri Suhrke, *Environmental Degradation and Population Flows*, 47 J. INT'L AFF. 473, 479 (1994) (explaining a two-step process to revive

were rebuffing such (mis)use of the term "refugee," which neither applied to such individuals as a matter of law, nor was analytically sound.[134] Whereas "refugee" implies that environmental migration is necessarily forced and international, environmental and climate migration exists on a spectrum spanning the forced and the voluntary, the internal and the international, and the authorized and the unauthorized. Moreover, as previously discussed, environmental and climatic determinants of migration coexist with many social, political, and economic variables, such that environmental and climate migration cannot be defined as a single, discrete category of migration in the same way refugees can be.[135] While some have called for an expansion of the definition of "refugee,"[136] and New Zealand briefly led the charge in recognizing climate change as grounds for asylum claims in narrow circumstances, they remain in the minority.[137] Indeed, a 2009 study of the people of two low-lying atoll states threatened with submersion by sea level rise, Tuvalu and Kiribati, found that many of the people at risk of climate displacement rejected the label

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the debate on environmental refugees); and Steve Lonergan, *The Role of Environmental Degradation in Population Displacement*, 4 ENV'T CHANGE & SEC. PROJECT REPORT 5, 8 (1998) (addressing concerns that there is "no legal basis" for the term "environmental refugee").

134 *See* Aurelie Lopez, *The Protections of Environmentally-Displaced Persons in International Law*, 37 ENV'T L. 365, 376–78 (2007) (pointing out that international law does not address environmental refugees); Emily Naser-Hall, *Square Pegs in Round Holes: The Case of Environmentally Displaced Persons and the Need for a Specific Protection Regime in the United States*, 22 TUL. J. INT'L & COMP. L. 263, 265, 270 (2014) (explaining that the terms "environmental refugee" and "environmental migrants" "imply certain legal consequences" and identifying certain factors that a definition of "environmental refugee" would need to address); Christopher R. Rossi, *The* Nomos *of Climate Change and the Sociological Refugee in a Sinking Century*, 50 GEO. INT'L L. REV. 613, 617, 619 (2018) (addressing that case law often has not acknowledged the relationship between climate change and migration and thus has not reached the "legal threshold[]" that would recognize "climate refugees as a protected class").

135 McAdam & Loughry, *supra* note 35, at 4.

136 *See, e.g.*, Issa Ibrahim Berchin et al., *Climate Change and Forced Migrations: An Effort Towards Recognizing Climate Refugees*, 84 GEOFORUM 147, 147–48 (2017) (explaining that different countries will often adopt their own definition of "refugee"); Claire DeWitte, *At the Water's Edge: Legal Protections and Funding for A New Generation of Climate Change Refugees*, 16 OCEAN & COASTAL L.J. 211, 221 (2011) (describing the historical debates regarding the definition of "environmental refugee"); Docherty & Giannini, *supra* note 70, at 361, 370 (discussing the current definition of "environmental refugee" and proposing a new definition); Breanne Compton, Note, *The Rising Tide of Environmental Migrants: Our National Responsibilities*, 25 COLO. NAT. RESOURCES ENERGY & ENV'T L. REV. 357, 381 (2014) (arguing that the definition of refugee from the U.N. Convention and Protocol Relating to the Status of Refugees should apply to environmental refugees); Tiffany T.V. Duong, Comment, *When Islands Drown: The Plight of "Climate Change Refugees" and Recourse to International Human Rights Law*, 31 U. PA. J. INT'L L. 1239, 1266 (2010) (arguing that an international definition for "environmental refugee" should be implemented); *cf.* JOANNA APAP, PARL. EUR. RES. SERV. (PE 621.893) BRIEFING, THE CONCEPT OF 'CLIMATE REFUGEE': TOWARDS A POSSIBLE DEFINITION 5 (2018) (examining the European Union's growing recognition of a group of people often described as "climate refugees," though the European Union has not to date recognized a formal category of "climate refugees").

137 *See supra* note 17 and accompanying text.

of "refugee" themselves, which they felt evoked a sense of "helplessness and a lack of dignity" not befitting them or their situation.[138]

There remains significant terminological variation in the literature on climate migration. Though some scholars continue to apply the label and lens of "refugee" to persons displaced by climate change,[139] many alternative or supplementary terms have emerged, some defining and distinguishing migrants based on whether they were displaced or more voluntarily chose to migrate—for example, "environmentally displaced persons" or "ecological refugees" versus "environmental migrants"—or on whether their movements were catalyzed by environmental or climatic shifts—for example, "ecological migration" versus "climate-induced migration," "climate change-induced migration," or "climate migration."[140] This Article uses "climate migration" to refer to human movements arising from anthropogenic climate change.

As with terminology concerning climate migrants, there is substantial diversity in frameworks for approaching climate migration. Parts III and IV analyze two leading frameworks: humanitarianism and prudentialism.

III. HUMANITARIANISM: THE MIGRANT WELFARE-BASED FRAMEWORK

> *We speak about the humanitarian consequences of global climate change as though we are dealing with a future possibility. Far from it, this is not a possibility or even a probability, this is a certainty.*
>
> — Ambassador L. Craig Johnstone, U.N. Deputy High Commissioner for Refugees[141]

As anthropogenic climate change has driven more and more people to migrate, sometimes with no viable alternative, certain humanitarian discourses have coalesced around climate migration. Broadly conceived as the "promotion of human welfare,"[142] humanitarianism has historically produced programs and initiatives aimed at 1) alleviating poverty and

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138 McAdam & Loughry, *supra* note 35.

139 *See, e.g.*, Bayes Ahmed, *Who Takes Responsibility for the Climate Refugees?*, 10 INT'L J. CLIMATE CHANGE STRATEGIES & MGMT. 5, 16, 18 (2018) (explaining that climate refugees "face greater political risks than refugees who flee their homes due to conflict or political oppression"); Dayna Nadine Scott & Adrian A. Smith, *Sacrifice Zones in the Green Energy Economy: The "New" Climate Refugees*, 26 TRANSNATIONAL L. & CONTEMP. PROBS. 371, 378 (2017) (arguing that international forms of mitigation for climate refugees "border on the absurd"); Douglas Stephens, *Establishing a Positive Right To Migrate as a Solution to Food Scarcity*, 29 EMORY INT'L L. REV. 179, 192 (2014) (describing the categories of environmental refugees).

140 *See supra* note 8 and accompanying text (discussing how this Article defines "climate migration"); *supra* note 18 and accompanying text (listing terms used to invoke climate migration or related phenomena).

141 Johnstone, *supra* note 6, at 4.

142 *Humanitarianism*, OXFORD LIVING DICTIONARIES, https://perma.cc/K4VF-QCHM (last visited Oct. 16, 2020).

fostering development in developing states; 2) protecting vulnerable populations, such as refugees, children, and the food insecure; 3) providing aid in response to sudden-onset natural disasters, armed conflicts, and other crises; and 4) promoting human rights through legal, quasi-legal, and ethical obligations imposed on each state.[143] Climate migration has recently emerged as a humanitarian issue, viewed as a byproduct of deficiencies of the place of origin and as a burden for the place of destination.[144]

This Part explores the international community's growing recognition of climate migration as a humanitarian issue, as well as the limitations of the prevailing humanitarian approach to climate migration. Part III.A lays out the underlying principles of humanitarianism and its orientation to climate migrants simultaneously as actors with rights and choices and as objects of injustice and support. Every state has a duty to protect the rights and welfare of its citizens and residents, as well as those of incoming migrants whom climate change may have induced to migrate. However, the unrelenting rise of climate change has undermined and, in the case of sinking island states and many developing states, devastated the capacity for states to safeguard people within their borders.[145] In the event a state cannot or does not uphold the rights of people within its jurisdiction, other states have a narrow legal obligation or, at minimum, a moral imperative to intercede.[146] Part III.A further sets forth the existing international regime for providing humanitarian assistance to climate migrants and affected states. Part III.B proceeds to examine the outlook for the humanitarian case for the protection of climate migrants, as climate change wields an increasingly outsize impact on human mobility. Specifically, this Part highlights the risks associated with the humanitarian approach of relegating climate migrants to a position of passivity.

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143 *See Deliver Humanitarian Aid*, UNITED NATIONS, https://perma.cc/FR7K-NXLF (last visited Oct. 16, 2020) (describing the mandates of the OCHA, UNDP, UNHCR, UNICEF, WFP, FAO, and WHO); *Humanitarian Assistance*, UNITED NATIONS, https://perma.cc/LZF3-WVRR (last visited Oct. 16, 2020) (describing the mandates of most of the aforementioned U.N. bodies, as well as U.N. Women).

144 *See* McGregor, *supra* note 133, at 126–27 (recognizing the argument that climate migration may be the product of the inability, negligence, or indifference of states of origin to protect the needs of their citizens); *cf.* Falstrom, *supra* note 29, at 17 (observing that "[p]roponents of including environmental displaced persons in the traditional definition of refugees argue that inclusion is the best choice because protecting them under international law ensures that the burden is distributed more evenly among nations").

145 McGregor, *supra* note 133, at 126–27.

146 *See* United Nations Framework Convention on Climate Change, Paris, *Report of the Conference of the Parties on its Twenty-First Session*, 26, U.N. Doc. FCCC/CP/2015/10/Add.1, annex: Paris Agreement (Jan. 26, 2019) ("Parties recognize the importance of support for international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.").

A. Climate Migrants as Actors with Fundamental Rights and Constrained Agency

Humanitarianism is grounded in the international human rights legal regime, which the international community began to assemble in the mid-twentieth century. The end of World War II invigorated interest in international solidarity, as well as equal and inalienable human rights.[147] As set forth by the U.N. Charter, the United Nations was founded in 1945 in large part:

> To achieve international co-operation in solving international problems of an economic, social, cultural, or *humanitarian* character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and [t]o be a centre for harmonizing the actions of nations in the attainment of these common ends.[148]

The subsequent adoption of the Universal Declaration of Human Rights (UDHR) in 1948 and the International Covenants on Civil and Political Rights (ICCPR) and on Economic, Social and Cultural Rights (ICESCR) in 1966, which together comprise the International Bill of Human Rights,[149] recognized and reified "the *equal and inalienable* rights of *all* members of the human family."[150]

Many of the rights encompassed by the International Bill of Human Rights may be implicated by climate migration, depending on the context, including, *inter alia*, the right to life, liberty, and security of person,[151] the right to self-determination,[152] the right to an adequate standard of living,[153] and the right to be free from hunger.[154] Other U.N. instruments target at-risk groups, which often bear a disproportionate burden of the impacts of climate change; these include the International Convention on

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147 *See* U.N. Charter pmbl. (describing the United Nations' commitment to, among other priorities, promoting fundamental, equal human rights, and to saving future generations from "the scourge of war, which twice in our lifetime has brought untold sorrow to mankind"); United Nations, *History of the Document*, UNITED NATIONS, https://perma.cc/9R43-7A88 (last visited Dec. 19, 2020) (describing the movement to establish an international human rights legal framework following World War II).

148 U.N. Charter art. 1, ¶¶ 3–4 (emphasis added).

149 *International Bill of Human Rights*, U.N. OFF. OF THE HIGH COMM'R FOR HUMAN RIGHTS, https://perma.cc/8CAT-NVTQ (last visited Nov. 4, 2020).

150 G.A. Res. 217 (III) A, Universal Declaration of Human Rights, pmbl. (Dec. 10, 1948) [hereinafter UDHR] (emphasis added).

151 *Id.* art. 3; *see also* G.A. Res. 2200A (XXI), International Covenant on Civil and Political Rights, art. 6, ¶ 1 (Dec. 16, 1966) [hereinafter ICCPR] ("Every human being has the inherent right to life."); *id.* art. 9, ¶ 1 ("Everyone has the right to liberty and security of person.").

152 ICCPR art. 1, ¶ 1; G.A. Res. 2200A (XXI), International Covenant on Economic, Social and Cultural Rights, art. 1, ¶ 1 (Dec. 16, 1966) [hereinafter ICESCR].

153 *Id.* art. 11, ¶ 1.

154 *Id.* art. 11, ¶ 2.

the Elimination of All Forms of Racial Discrimination adopted in 1965,[155] the Convention on the Elimination of All Forms of Discrimination Against Women adopted in 1979,[156] the Convention on the Rights of the Child adopted in 1989,[157] the Convention on the Rights of Persons with Disabilities adopted in 2006,[158] and the Guiding Principles on Extreme Poverty and Human Rights adopted in 2012.[159] Still other instruments set forth the particular rights of migrant workers and refugees, whose migration climate change may have directly or indirectly triggered (for example, through intensified desertification, which can devastate local agriculture, heighten food insecurity, and stoke armed conflicts).[160]

The notion of equality is central to the international human rights legal regime. As articulated in the Preamble of the UDHR, human rights are equal, inviolable, and universal, to be enjoyed by all people, including those displaced or driven to migrate by climate change, whether intranationally or internationally, with or without authorization.[161] Furthermore, all people have a right to equality itself.[162] Viewed as a right to formal equality, this right provides that "all persons similarly situated should be treated alike."[163] This tenet of equal treatment often finds voice in prohibitions against discrimination on the grounds of migration status,

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155 G.A. Res. 2106 (XX), International Convention on the Elimination of All Forms of Racial Discrimination (Dec. 21, 1965), https://perma.cc/2D7Q-Q7P3.

156 G.A. Res. 34/180, at 193–94 (Dec. 18, 1979), https://perma.cc/ZZE7-U35Q.

157 G.A. Res. 44/25, at 166–67 (Nov. 20, 1989), https://perma.cc/4T4E-ABM8.

158 U.N. General Assembly, 61st Sess., 76th plen. mtg. at 1–2, U.N. Doc. A/RES/61/106 (Dec. 13, 2006), https://perma.cc/9B7W-2P9U.

159 U.N. Human Rights Council, 21st Sess., 36th mtg. at 2, U.N. Doc. A/HRC/RES/21/11 (Oct. 18, 2012), https://perma.cc/JE9M-T5SC.

160 *See, e.g.*, G.A. Res. 45/158, annex, International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (Dec. 18, 1990), https://perma.cc/65U9-KEQ5 (considering the vulnerability of migrant workers and determining the rights of migrant workers); Convention Relating to the Status of Refugees (July 28, 1951). 189 U.N.T.S. 137, art. 1, https://perma.cc/S57Y-7Y9X (defining "refugee" for purposes of the Convention); FOOD AND AGRIC. ORG. OF THE U.N., CONFLICT, MIGRATION AND FOOD SECURITY: THE ROLE OF AGRICULTURE AND RURAL DEVELOPMENT 1 (2017), https://perma.cc/JS35-EKCC (discussing food insecurity throughout the world).

161 *See* UDHR, *supra* note 150, pmbl.

162 *See id.* at art. 7 ("All are equal before the law and are entitled without any discrimination to equal protection of the law.").

163 City of Cleburne v. Cleburne Living Ctr., 473 U.S. 432, 439 (1985) (citing Plyler v. Doe, 457 U.S. 202, 216 (1982)); *see* Reed v. Reed, 404 U.S. 71, 76–77 (1971) (concluding that "dissimilar treatment for men and women who are . . . similarly situated" is the "very kind of arbitrary choice forbidden" by the U.S. Constitution (citing Royster Guano Co. v. Virginia, 253 U.S. 412, 415 (1920))); *see also* Miller v. Johnson, 515 U.S. 900, 911 (1995) ("At the heart of the Constitution's guarantee of equal protection lies the simple command that the Government must treat citizens 'as individuals, not "as simply components of a racial, religious, sexual or national class."' (quoting Metro Broadcasting, Inc. v. FCC, 497 U.S. 547, 602 (1990) (O'Connor, J., dissenting))); Sandra Fredman, *Substantive Equality Revisited*, 14 INT'L J. CONST. L. 712, 716 (2016) ("The simplest and most ubiquitous statement of the principle of equality is the Aristotelian formula that likes should be treated alike. The principle that likes should be treated alike is possibly the most pervasive interpretation of the right to equality, largely in the form of prohibitions on direct discrimination or disparate treatment.").

as well as on the basis of race, religion, sex, sexual orientation, gender identity, disability status, or indigenous status.[164] Viewed alternatively as a right to substantive equality, this right may require states to treat differentially persons dissimilarly situated to ensure the disadvantaged may attain equal opportunities and equitable outcomes.[165] Notably, this principle of equality of opportunities or of outcomes may compel states to consider the individualized needs of certain categories of migrants, such as people forced to flee floods or other sudden-onset disasters that left them with little recourse but to migrate. As Laura Thompson, Deputy Director General for the International Organization for Migration, notes,

> Migrants are vulnerable to human rights violations because they are not citizens of receiving states and, due to their status, often live in precarious situations. . . . Whether migrants enter states with authorization or they are undocumented, migrants will generally find their rights diminished in comparison with the citizens of their country of residence.[166]

Upholding human rights enshrined in the aforementioned international instruments principally falls to individual states.[167] Although a state may intentionally neglect to protect the rights of migrants within its jurisdiction, a failure to protect such rights often stems from a lack of capacity rather than from an absence of will. With climate change threatening to displace up to one billion people by 2050,[168] the case of a state struggling to accommodate the influx of climate migrants will likely become more common. As more and more states have no choice but to confront the challenges of climate migration, they must decide whether to assist climate migrants entering their domain. Under the humanitarian framework, states have a strong ethical duty, as well as an attenuated legal duty, to protect climate migrants whom states of origin are unable to protect. Exponents of humanitarianism and similar theories of cosmopolitanism and global distributive justice often assert that richer, polluting states—who bear greater responsibility for anthropogenic climate change—have an ethical obligation to protect climate migrants disproportionately hailing from developing states,[169]

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164 United Nations, *Equality and Non-discrimination*, UNITED NATIONS AND THE RULE OF LAW, https://perma.cc/PD26-8RD3 (last visited Oct. 16, 2020).

165 *See* Fredman, *supra* note 163, at 720 (describing substantive equality as a "broad umbrella," the "precise meaning of [which] remains contested," but that generally "aim[s] for equality of results or equality of opportunity" or is grounded in "substantive values, such as dignity").

166 Laura Thompson, *Protection of Migrants' Rights and State Sovereignty*, U.N. CHRON., Sept. 2013, at 8, 8 (footnote omitted) (internal quotation marks omitted).

167 *See* Harold Hongju Koh, *How is International Human Rights Law Enforced?*, 74 IND. L.J. 1397, 1399 (1999) (explaining that international law is enforced through a "*transnational legal process*" which "attempts to *internalize* [legal] norms into domestic legal systems").

168 *See supra* note 6 and accompanying text.

169 *Cf.* Jeffrey Broadbent et al., *Conflicting Climate Change Frames in a Global Field of Media Discourse*, 2 SOCIUS: SOC. RES. FOR A DYNAMIC WORLD, 2016, at 1, 5 (noting that,

many of which contribute relatively little to anthropogenic climate change.[170] A common justification for this ethical duty is the "birthright lottery": that is, the process through which individuals attain membership and attendant privileges in a state by birth, perpetuating global disparities in opportunities and outcomes.[171] While climate migrants exercise their agency in choosing whether, where, and how to migrate, those choices are constrained by their citizenships and other factors not exclusively within their control.[172]

Underpinning theories of humanitarianism is the normative principle that all people are citizens of Earth.[173] Enlightenment philosopher Immanuel Kant's political theory of cosmopolitanism helped to develop this normative principle. Kantian cosmopolitanism is "built upon the universality of moral law" and "a wish for universal hospitality of which everyone may partake."[174] Notably, Kant envisioned the right to hospitality to be the right of a *temporary* visitor to "not be treated like an enemy in a country when he arrives."[175] Contemporary cosmopolitans have extended Kantian cosmopolitanism to focus not so much on relations among states governed by national laws and on hospitality to temporary visitors, but rather on unity of all humankind, governed by international institutions and laws transcending state borders.[176] Today, cosmopolitanism takes the form of both an ethical ideology and a political project, calling for global governance through international institutions to oversee cross-border phenomena, such as migration, and to uphold individuals' rights in an increasingly globalized world.[177]

"under the cooperative ethic, newspapers in developing societies could readily point the finger of blame and responsibility at societies with long polluting records"); Simon Caney, *Cosmopolitan Justice, Responsibility, and Global Climate Change*, 18 LEIDEN J. INT'L L. 747, 763 (2005) (exploring various applications of the "polluter pays" principle, including the approach that wealthy countries "should compensate for the environmental bads they generated"); Michelle A. McKinley, *Special Supplement: Conviviality, Cosmopolitan Citizenship and Hospitality*, 5 HARV. UNBOUND J. LEGAL LEFT 55, 56 (2009) (setting forth a neo-Kantian critique of Rawlsian bordered distributive justice and notions of territorialized citizenship).

170 *See Nothing So Concentrates the Mind*, ECONOMIST (Sept. 21, 2009), https://perma.cc/Y4UQ-VC7K (noting that small island developing states account for less than one percent of global greenhouse gas emissions).

171 AYELET SHACHAR, THE BIRTHRIGHT LOTTERY: CITIZENSHIP AND GLOBAL INEQUALITY 7 (2009).

172 *See, e.g.*, *supra* notes 113–123 and accompanying text (documenting the impact of socioeconomic and other factors, as well as personal preferences, on migration decisions following Hurricanes Katrina and Maria).

173 *See* Monique Canto-Sperber, *The Normative Foundations of Cosmopolitanism*, 106 PROCEEDINGS ARISTOTELIAN SOC'Y 267, 268 (2006) (stating at the outset that cosmopolitanism and perpetual peace rely on the foundation that all humans are citizens of Earth).

174 *Id.* at 270 (citing IMMANUEL KANT, PERPETUAL PEACE: A PHILOSOPHICAL ESSAY, at ix (1795)).

175 *Id.* (quoting KANT, *supra* note 174, at 137).

176 *See id.* at 270–71 (discussing Kantian cosmopolitan's shift from morality in states' national laws to today's "internationalist" approach).

177 *See id.* at 271 (explaining the role of cosmopolitanism both ethically and politically to protect the rights of individuals in a globalizing world).

Current international law combines with a state's ethical duty to protect citizens of other states. In the climate migration context, the legal duty to protect is generally conditional or non-binding and operates on a sense of benevolence in addition to a sense of ethical duty.[178] The international quasi-legal institutions that are most germane to climate migration sometimes fall short even of Kant's limited duty of hospitality. Most of the previously discussed international human rights instruments, such as the ICCPR and the ICESCR, apply only to signatories.[179] Even for those states upon which the instruments are incumbent, the legal duty imposed is often vaguely defined. For instance, the ICESR mandates that each state "take steps, individually and through international assistance and co-operation, . . . with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means,"[180] without specifying the scope of "all appropriate means."[181] In line with this trend of non-binding, international quasi-legal instruments, the U.N. Global Compact for Migration, the first global agreement to delineate a common approach to migration, was adopted by 164 states but was significantly missing the United States, Australia, and several European states and was voluntary and non-binding for its signatories.[182] Advocacy for the establishment of binding duties to protect, especially for developed states, has generally been futile. The commitment to assist other states has overall essentially been reduced to a moral imperative or charitable inclination with few, if any, enforcement mechanisms or practical incentive structures.[183]

One fundamental issue is that, as some commentators drawing on eighteenth-century social contract theory argue, distributive justice is necessarily confined to a political community, such as a state, and thus cannot apply globally.[184] For instance, John Rawls's seminal theory of distributive justice operates in the context of a nation-state, applying only to persons belonging to the state, and therefore may exclude some climate migrants who are forced to move to the state.[185] Similar to Kant, Rawls concedes a narrow "duty to assist other peoples living under unfavorable conditions" beyond the state's borders, but climate migration may

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178 Michael Walzer, *On Humanitarianism: Is Helping Others Charity, or Duty, or Both?*, FOREIGN AFF., 2011, at 69, 78–79.

179 *See* discussion *supra* Part I (outlining how the majority of international human rights instruments are voluntary and non-binding).

180 ICESCR, *supra* note 152, art. 2 ¶ 1(Dec. 16, 1966).

181 *Id.*

182 Beeler, *supra* note 15.

183 For more on the conflation of moral duty and charity, *see* discussion *infra* Part III.B (discussing the reduction of the national duty to protect other states to a form of charity, despite the fact that humanitarianism can be driven in part by self-serving motives, such as the desire to assert political authority).

184 *See generally* David Miller, *The Ethical Significance of Nationality*, 98 ETHICS 647, 647 (1988) (noting the flaw in universalism is the significance people inevitably attribute to boundaries).

185 *See* JOHN RAWLS, A THEORY OF JUSTICE 3 (1971).

demand a broader duty to assist.[186] In his critique of Rawlsian distributive justice, cosmopolitan ethicist Thomas Pogge noted that Rawls opted to "'leave aside . . . the problem of justice between nations' and focus on the idealized case of a self-contained society."[187] According to Pogge, the limitation with Rawls's approach is that modern states are actually interrelated in multiple ways, including through international institutions, globalized economic processes, and transnational private actors.[188] Contemporary interdependence among states, especially following the formation of the United Nations, seems to call for justice that covers relations among states rather than is circumscribed by state borders. Accordingly, global interconnectedness and solidarity, at least on paper, could give rise to a stricter duty to protect.

Re-envisioning climate migrants as global actors would be a radical departure from Rawls's theory of justice, as well as theories advanced by cultural nationalists, such as Benedict Anderson. Anderson's influential theory of imagined communities defines a nation as "an imagined political community . . . *imagined* because the members of even the smallest nation will never know most of their fellow-members, . . . yet in the minds of each lives the image of their communion."[189] In this world of imagined communities, Anderson contends that "nation-ness is the most universally legitimate value in the political life of our time."[190] While the imaginative potential of building national communities is undeniable, the complex connectivity among states that forms the backdrop of contemporary climate migration points to the possibility of imagining communities, and developing legal duties of protection, that extend beyond national borders. Facilitating this vision of a global imagined community is the potential decline of the Westphalian ideal of sovereign statehood and non-intervention.[191] With the rise of globalization, international institutions, and international law, as well as the emergence of new climate challenges threatening Earth, the propriety and promise of the Westphalian system have diminished.

The agency of climate migrants in this global imagined community is worth emphasizing. Climate migrants possess not only needs and rights recognized by international law, but also agency over their lives. While climate change constrains and, in extreme conditions such as

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186 JOHN RAWLS, THE LAW OF THE PEOPLES 37 (1999).

187 Thomas Pogge, *Rawls and Global Justice*, 18 CANADIAN J. PHIL. 227, 233 (1988) (quoting John Rawls, *The Basic Structure as Subject*, *in* VALUES AND MORALS 47, 57 (A.I. Goldman & Jaegwon Kim eds., 1978)).

188 *See id.* at 233; *see also* Canto-Sperber, *supra* note 173, at 271 (describing the impact of the internationalization of institutions and the economy).

189 BENEDICT ANDERSON, IMAGINED COMMUNITIES: REFLECTIONS ON THE ORIGIN AND SPREAD OF NATIONALISM 15 (1983).

190 *Id.* at 12.

191 *See* Sagnik Guha, *Globalization and the State: Assessing the Decline of the Westphalian State in a Globalizing World*, INQUIRIES J., 2017, at 1, 1; *cf.* Stephens, *supra* note 139, at 182 (describing the inadequacies of the current human rights framework "to handle solutions that transcend borders and run counter to the Westphalian system of state sovereignty and nonintervention").

sinking island states, governs migration decisions,[192] individual actors always exercise at least some agency in choosing their migration path. Even in "forced" migration cases, where climate change phenomena render areas virtually uninhabitable and necessitate migration, individuals and households must determine where and how to migrate, among other considerations. A global imagined community, or some other domain of global distributive justice or international solidarity, can and should accommodate internal and transnational flows of climate migrants and should aim to support the array of choices related to *in situ* adaptation and migration that individuals may make.

B. Climate Migrants as Objects of Injustice and Support

The chasm between international solidarity in rhetoric[193] and in reality can be attributed not only to nationalist politics,[194] but also to limitations on empathy for far-flung beneficiaries suffering from unseen hardships. In this regard, Anderson's imagined community appears to be confined within state borders; residents of one state may struggle to imagine themselves sharing a society with residents of other states.[195] The ethical duty to support and protect has been, in many respects, conflated with and reduced to a form of charity.[196]

In practice, humanitarian assistance, like charity, is most readily given when there are prospects of at least some reciprocity and when the objects of assistance are visible or at least comprehensible to the givers.[197] States view humanitarian work as a prong in strategic planning and policy agendas, enmeshed with domestic and multilateral politics and power struggles.[198] To some degree, donor governments deploy humanitarian aid "as a foreign policy or military tool" on the international "chessboard."[199] Other instrumental incentives to engage in humanitarianism may include public pressure, bolstered by the efforts of

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192 *See supra* notes 53, 68–71 and accompanying text.

193 *See* UDHR, *supra* note 150, at 72 (Dec. 10, 1948) (international human rights declaration calls for "universal respect for and observance of human rights"); U.N Charter, pmbl. ("Promotion of the economic and social advancement of all peoples.")

194 *See supra* note 184 and accompanying text.

195 ANDERSON, *supra* note 189, at 16.

196 *See* Walzer, *supra* note 178, at 69.

197 *See id.* at 77 ("Humanitarian crises are more often ignored than seized on as an excuse for domination.").

198 *See* DEVON CURTIS, POLITICS AND HUMANITARIAN AID: DEBATES, DILEMMAS AND DISSENSION 3 (2001) (discussing the political nature of humanitarian work); *Humanitarian Assistance*, CTR. FOR STRATEGIC & INT'L STUD. https://perma.cc/UZK9-PZMQ. (last visited Oct. 16, 2020) (exploring U.S. policies regarding humanitarian assistance).

199 Jonathan Whittall, *Is Humanitarian Action Independent from Political Interests?*, SUR INT'L J. HUM. RIGHTS, Aug. 2015, at 1, 1–2.

humanitarian organizations,[200] and political interest in claiming moral authority.[201]

Not only climate change's effects on the environment, but also the beneficiaries of climate change policy, appear remote to some. When imagined, beneficiaries of humanitarian assistance often appear as a passive victims of climate change phenomena and impotent governments, collectively conceived as "the distant needy."[202] This dissociation from and "othering" of objects of aid by developed state actors underscores a power imbalance and reinforces the sense that mutually beneficial kinship is unlikely to emerge from humanitarian efforts.[203] In the climate migration context, nomenclature reflects and reinforces the geographic and psychic separation between climate migrants and humanitarian actors. As discussed in Part II, many scholars and practitioners still refer to climate migrants from sinking island states as "refugees,"[204] which many residents reject as casting them as powerless victims.[205]

Academic and political discourses about climate migration are often devoid of the voices of climate migrants themselves, emphasizing their place as objects, rather than actors, in the climate migration sphere.[206] A common portrayal of climate migrants is one of a horde of helpless victims in need of outside intervention and protection. The image of sea level rise threatening to engulf entire low-lying atoll states and wipe out whole societies is especially evocative, generating sympathetic but sometimes paternalistic momentum to protect prospective and actual "forced" migrants from the incapacity of these states. An alternate, somewhat contradictory, and equally if not more pernicious line of thought draws on xenophobic undercurrents in broader migration discourses, painting a picture of a rising tide of faceless, nameless migrants threatening to

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200 *See* Janice Gross Stein, *Humanitarian Organizations: Accountable—Why, to Whom, for What, and How?*, *in* HUMANITARIANISM IN QUESTION: POLITICS, POWER, ETHICS 124 (Michael Barnett & Thomas G. Weiss eds., 2008) (discussing how the humanitarian community has become familiar with codes of conduct, charters, and standards for delivery of relief and shares lessons learned through an active network).

201 *Cf.* Stephen Hopgood, *Moral Authority, Modernity, and the Politics of the Sacred*, 15 EUR. J. INT'L RELATIONS 229, 233 (2009) (examining the impact of capitalism and politics on humanitarianism though a case study of Amnesty International, as well as the prospects for human rights in light of the universalization of the Holocaust narrative).

202 *See* Deen K. Chatterjee, *Introduction*, *in* THE ETHICS OF ASSISTANCE: MORALITY AND THE DISTANT NEEDY 1 (Deen K. Chatterjee ed., 2004).

203 *Cf.* Peter Singer, *Outsiders: Our Obligations to Those Beyond Our Borders*, *in* THE ETHICS OF ASSISTANCE: MORALITY AND THE DISTANT NEEDY, *supra* note 202, at 20 (noting that "proximity means that we have many opportunities to enter into relationships . . . of various kinds, but especially those of friendship and mutually beneficially reciprocity").

204 *See, e.g.*, Daniel Faber & Christina Schlegel, *Give Me Shelter from the Storm: Framing the Climate Refugee Crisis in the Context of Neoliberal Capitalism*, CAPITALISM NATURE SOCIALISM, Aug. 2017, at 1, 9.

205 *See* McAdam & Loughry, *supra* note 35.

206 *Cf.* F.M. Kamm, *The New Problem of Distance in Morality*, *in* THE ETHICS OF ASSISTANCE: MORALITY AND THE DISTANT NEEDY, *supra* note 202, at 59, 66 (describing the impact of distance on heightening in "agent-centeredness" of morality).

overtake developed states.[207] Such depersonalization and demonization of climate migrants galvanize support for closing state borders to many categories of migrants: forced and voluntary, authorized and unauthorized.[208] Moreover, institutional responses are often developed and implemented in a "one-size-fits-all" fashion, eliding input from climate migrants about their needs, desires, and capabilities.[209]

In part driving this distortion or dilution of humanitarianism in the climate migration realm is the perception of the interests of individual climate migrants as being diametrically opposed to the interests of their places of destination.[210] The predominant belief among developed states that national welfare is irreconcilable with climate migrant welfare, and must take precedence over the latter, has fostered a general ambivalence toward the growing problems associated with climate migration to which developed states disproportionally contribute. Given that many state leaders continue to cabin climate migration as a niche or developing state issue that they have only a narrow humanitarian duty to address, the next Part examines the practical incentives—or perceived lack thereof—to take greater action.

IV. PRUDENTIALISM: THE NATIONAL WELFARE-BASED FRAMEWORK

> *Each State must determine its own priorities . . . [T]here is no one-size-fits-all approach.*
>
> — Antonio Vitorino, International Organization for Migration Director General[211]

As Part III showed, climate migration reveals broader issues with expecting states to act out of a sense of ethical and, to a lesser extent, legal duty. There is a strong intellectual tradition and a prevalent

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207 *Cf.* Faber & Schlegel, *supra* note 204, at 9 (describing the Trump administration's continual scapegoating of immigrants to the United States as "undermining the safety and well-being of American citizens"). For more on the conception of climate migrants as security threats, *see* discussion *infra* Part IV.B.

208 *See* discussion *infra* Part IV.B.

209 An example of a normative void in international humanitarian efforts to protect climate migrants is the overlooking of their right to enjoy their culture, as enshrined in UDHR art. 27 and ICCPR art. 27. *See* Margaretha Wewerinke-Singh, *Climate Migrants' Right to Enjoy Their Culture*, *in* 'CLIMATE REFUGEES': BEYOND THE LEGAL IMPASSE? 194, 194–96 (Simone Behrman & Avidan Kent eds., 2018). The U.N. Global Compact for Migration was an anomaly in its affirmation of the parties' commitment to "[e]mpower migrants and societies to realize full inclusion and social cohesion," including "[p]romot[ing] mutual respect for the cultures, traditions and customs of communities of destination and of migrants." G.A. Res. 73/195, Global Compact for Safe, Orderly and Regular Migration, *supra* note 14, ¶ 32. However, parties have yet to outline how they plan to exchange and implement best practices on this front.

210 TODD MILLER, STORMING THE WALL: CLIMATE CHANGE, MIGRATION, AND HOMELAND SECURITY 52 (2017) (providing examples of "environmental degradation and migration").

211 U.N. Global Compact Press Release, *supra* note 13.

political reality of what this Article refers to as prudentialism, which runs counter to conventional humanitarianism and cosmopolitanism.[212] The concept and practice of prudentialism are closely related to the doctrine of political realism.[213] Both are grounded in notions of rationality and the presumption of the primacy of national interests: economic, security, and otherwise.[214] Both generally in international politics and specifically in the climate migration context, a prevailing view is that national welfare-oriented states act in accordance with cost-benefit calculi, appraising different policy options on the basis of their rational economic and security value.[215] Political reality deviates from this ideal type of rational decision-making: in practice, national interests are neither fixed nor clear-cut and therefore cannot dictate an unequivocal course of conduct.[216] However, it is indisputable that prudential considerations have impeded drastic and coordinated international measures to address the challenges of climate migration.

This Part elucidates the nexus among national welfare, rational political decision-making, and climate migration action. The term "rational," as used here, refers to "behavior that is appropriate to specified goals in the context of a given situation."[217] As to the term "national welfare" or "national interest," the term is often broadly defined[218] or

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212 While cosmopolitanism and prudentialism, as traditionally conceived, are oppositional, they are not necessarily antithetical. *See* Daniel Bray, *Pragmatic Ethics and the Will To Believe in Cosmopolitanism*, 5 INT'L THEORY 446, 471–72 (2013) (setting forth a pragmatic cosmopolitan ethic). "[C]osmopolitanism can be morally compelling *and* practically useful in the contemporary world if conceived pragmatically as a set of ideals that guide action on cross-border problems." *Id.* at 447.

213 For example,

> [p]olitical realism believes that politics, like society in general, is governed by objective laws that have their roots in human nature. In order to improve society it is first necessary to understand the laws by which society lives. The operation of these laws being impervious to our preferences, men will challenge them only at the risk of failure. Realism, believing as it does in the objectivity of the laws of politics, must also believe in the possibility of developing a rational theory that reflects, however imperfectly and one-sidedly, these objective laws.

HANS J. MORGENTHAU, POLITICS AMONG NATIONS: THE STRUGGLE FOR POWER AND PEACE 4 (5th ed. 1978).

214 *Id.* at 5.

215 *See* Mark G. Stewart, *Climate Change and National Security: Balancing the Costs and Benefits*, THE CATO INSTITUTE (June 10, 2020), https://perma.cc/W6CJ-AW6G (exploring this cost-benefit analysis and looking specifically at different economic and regional instability factors).

216 *See* Michael Colebrook, *Whose National Interest? Which Foreign Policy?*, REAL CLEAR DEF. (Feb. 7, 2020) https://perma.cc/232X-LBSJ (describing a threefold approach to determining national interests).

217 Herbert A. Simon, *Human Nature in Politics: The Dialogue of Psychology with Political Science*, 79 AM. POL. SCI. REV. 293, 294 (1985).

218 *E.g.*, Fred A. Sondermann, *The Concept of the National Interest*, *in* THE THEORY AND PRACTICE OF INTERNATIONAL RELATIONS 57, 58 (William C. Olson et al. eds., 1983) (defining "national interests" as "values held by some, many, perhaps even all of the members of a given society").

normatively defined through the lens of certain foreign policy goals or ideological views.[219] I adhere to the relatively neutral definition deployed by political scientist Joseph Frankel, which is "centred upon the welfare of the nation and the preservation of its political doctrine and national style of life."[220] Parts IV.A and IV.B delve into the two principal categories of national interests at stake in the climate migration universe and in general: 1) economic and 2) security.

A. Climate Migrants as Economic Burdens

At the core of many economic principles is rational choice theory, which presumes individual actors are rational utility-maximizers who pursue preference-maximizing actions and exchanges;[221] in this respect, many economic and law and economics theories resemble utilitarianism.[222] Applied to international legal questions, such as climate migration, economics and law and economics scholars often presume that, welfare-maximizing states, like utility-maximizing firms, households, and individuals, pursue their interests above all else, sometimes to the detriment of other states' national interests.[223] However, as a number of

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219 *E.g.*, GRAHAM ALLISON & ROBERT BLACKWILL, BELFER CTR. FOR SCI. & INT'L AFF., AMERICA'S NATIONAL INTERESTS: THE COMMISSION ON AMERICA'S NATIONAL INTERESTS 24, 27 (2000) (describing a hierarchy of U.S. interests entangled with the actions and interests of other countries, including Japan, China, and Russia, shaped by the Belfer Center's focus on international security); Strobe Talbott, *Democracy and the National Interest*, FOREIGN AFF., Nov.–Dec. 1996, at 47, 47–49 (highlighting President Clinton's pursuit of purported national interests based on his administration's priority of supporting democracies in foreign states).

220 JOSEPH FRANKEL, NATIONAL INTEREST 19 (1970).

221 *See* GARY S. BECKER, THE ECONOMIC APPROACH TO HUMAN BEHAVIOR 14 (1976) ("[A]ll human behavior can be viewed as involving participants who maximize their utility from a stable set of preferences and accumulate an optimal amount of information and other inputs in a variety of markets."); *id.* at 153 ("[I]t has long been agreed that traditional economic theory 'assumes' rational behavior"); John Scott, *Rational Choice Theory*, *in* UNDERSTANDING CONTEMPORARY SOCIETY: THEORIES OF THE PRESENT 126, 126 (Gary Browning et al. eds., 2000) (attributing the appeal of economics at least in part to rational choice theory, which presumes "that all action is fundamentally 'rational' in character and that people calculate the likely costs and benefits of any action before deciding what to do"). For seminal law and economics scholarship derived in part from this premise, see, for example, RICHARD A. POSNER, THE ECONOMICS OF JUSTICE (1981). *See also* BRIAN TAMANAHA, LAW AS A MEANS TO AN END: THREAT TO THE RULE OF LAW 118 (2006) ("The starting assumption of economic analysis is 'that the people involved with the legal system act as rational maximizers of their satisfaction.'") (quoting Richard A. Posner, *The Economic Approach to Law*, 53 TEX. L. REV. 757, 751 (1975)).

222 *See* Richard A. Posner, *Bentham's Influence on the Law and Economics Movement*, 51 CURRENT LEGAL PROBS. 425, 437 (1998). However, as Posner notes, the normative stakes of law and economics are distinct from those of Benthamite utilitarianism. *See* Kristoffel Grechenig & Martin Gelter, *The Transatlantic Divergence in Legal Thought: American Law and Economics vs. German Doctrinalism*, 31 HASTINGS INT'L & COMP. L. REV. 295, 319–21 (2008); Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103, 104–06 (1979).

223 *See* Eric Posner & Alan Sykes, *Efficient Breach of International Law: Optimal Remedies, "Legalized Noncompliance" and Related Issues*, 110 MICH. L. REV. 243, 247 (2011) ("We

economics and law and economics scholars recognize, a state's welfare-maximizing imperative is not neatly analogous to a firm's profit motive.[224] Moreover, the impacts of climate change are so complex, extensive, and indeterminate that they may defy regular economic analysis.[225] Nevertheless, much of economics and law and economics scholarship operates on the disputable presumption national interests stem from concrete, rational economic goals.[226] Such an assessment of state action risks failing to capture certain nuances of climate change and migration governance, especially the ways in which the shifting terrains of domestic and multilateral politics continuously reshape national interests. As risk regulation scholar Jonathan Wiener asserts, "pragmatic choice depends on context."[227]

With respect to climate change governance, economics and law and economics scholars have historically tended to focus on climate change mitigation and the shortcomings of or challenges associated with a corrective justice approach to establishing duties to mitigate and compensate for climate change.[228] Still, others adhere to the Rawlsian

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assume that governments are responsive to the interests of their own constituents in formulating policy, but generally ignore the consequences of their policies for foreigners, who are unrepresented (or poorly represented) in the domestic political process.").

224 *See* KYLE BAGWELL & ROBERT W. STAIGER, THE ECONOMICS OF THE WORLD TRADING SYSTEM 3 (2002) (critiquing the traditional approach for its "unrealistic hypothesis that governments maximize national welfare," when "[r]eal-world governments . . . have both political and economic motivations"); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1477–78 (1998) (arguing that human behavior evades prediction by standard rational choice models in systematic ways, more closely resembling what behavioral economists have described as "bounded rationality"); Posner & Sykes, *supra* note 223, at 247–50 (recognizing the multiple and sometimes-conflicting considerations of which states must take into account when selecting and implementing policies across a broad range of policy areas); *cf. id.* at 251 (recognizing that "international law may have a welfarist foundation," but that "some governments may pursue objectives that are at odds with any principled conception of welfare.").

225 *See* Dale Jamieson, *Ethics, Public Policy, and Global Warming*, 17 SCI., TECH., & HUM. VALUES 139, 144 (1992) (explaining how economic analysis is "practically useless" against the uncertainties of climate change); *What Goes Up*, *supra* note 41, at 28.

226 *See* Dan Danielsen, *Economic Approaches to Global Regulation: Expanding the International Law and Economics Paradigm*, 10 J. INT'L BUS. & L. 23, 32 (2011) (describing law and economics scholars' "focus on the maximization (or preservation) of national interests, prestige, regulatory jurisdiction and political power").

227 Jonathan Baert Wiener, *Global Environmental Regulation: Instrument Choice in Legal Context*, 108 YALE L.J. 677, 682 (1999).

228 *See, e.g.*, ERIC POSNER & DAVID WEISBACH, CLIMATE CHANGE JUSTICE 116–17 (2010) (questioning whether corrective justice is germane to climate change issues); Matthew D. Adler, *Commentaries: Corrective Justice and Liability for Global Warming*, 155 U. PA. L. REV. 1859, 1866–67 (2007) (cautioning against the conclusion that compensation schemes are always supported by principles of corrective justice); Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, 96 GEO. L.J. 1565, 1592 (2008) (discussing how climate change problems fit poorly into the corrective justice model); Cass R. Sunstein, *On Fairy Tales*, 1 HARV. L & POL'Y REV. 371, 373 (2007) (arguing that emissions trading programs are preferable since they reduce mitigation costs); Cass R. Sunstein & Eric Posner, *Climate Change Justice* 31 (Coase-Sandor Working Paper Series in Law & Econ., Paper No. 354, 2007) (explaining how corrective justice notions for compensation are problematic given the temporal

tradition of endorsing distributive justice within closed borders.[229] As described in Part III, inherent in this Rawlsian vision of justice is the nation-state's right to exclude, though some humanitarians might argue such a right should be curtailed to promote responsibility in the international community.[230] This ideology has manifested itself in real-world climate change negotiations. Much of American action, or inaction, on the global climate change stage in the last few decades has stemmed from instrumental calculations finding that the potential costs of policy options to American economic interests outweigh the benefits.[231] The U.S. Senate's refusal to ratify the Kyoto Protocol signed by President Clinton was motivated, in large part, by a concern for the implications for the national economy.[232] More recently, in 2017, President Trump declared that the United States would withdraw from the Paris Climate Agreement on the premise that the agreement "disadvantages the United States to the exclusive benefit of other countries," leaving U.S. "taxpayers to absorb the cost in terms of lost jobs, lower wages, shuttered factories, and vastly diminished economic production."[233] When the United States began the withdrawal process in November 2019, the Trump administration emphasized it "will continue to offer a realistic and pragmatic model—backed by a record of real world results—showing innovation and open markets lead to *greater prosperity*, fewer emissions, and *more secure sources of energy*."[234] The inertia of other national governments might similarly be attributed to a state-centered economic calculus.

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scales of climate change). *See generally* NICHOLAS H. STERN, THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW 308–98, 473 (2007) (discussing policy responses involving climate change mitigation and underscoring the difficulty of achieving an equitable approach to emission reduction in "a system of uncoordinated national goals"). For a contrasting corrective justice approach, whereby polluting developed states would provide reparations in the form of compensation and non-repetition to developing states most impacted by climate change, see, for example, Maxine Burkett, Symposium, *Climate Justice and International Environmental Law: Rethinking the North-South Divide: Climate Reparations*, 10 MELBOURNE J. INT'L L. 509 (2009).

229 *See* McKinley, *supra* note 169, at 66–67 (describing the "Rawlsian insistence on closed borders to 'do' distributive justice" as out of touch with the realities of forced migration).

230 *See, e.g.*, Katrina M. Wyman, *Limiting the National Right To Exclude*, 72 U. MIAMI L. REV. 425, 432, 473 (2018) (noting how some scholars believe that developed countries are obligated to admit people displaced by climate change due to their historic emissions).

231 *See* Jody Freeman & Andrew Guzman, *Climate Change and U.S. Interests*, 109 COLUM. L. REV. 1531, 1538 (2009) (providing the example of the Kyoto Protocol signed by President Clinton).

232 *See* Byrd-Hagel Resolution, S. Res. 98, 105th Cong. (1997) (enacted) (outlining the Senate's fervent belief that the Kyoto Protocol's requirements for signatories, including the mandated reduction of greenhouse gas emissions, "would result in serious harm to the economy of the United States").

233 Timothy Cama & Devin Henry, *Trump: We Are Getting Out of Paris Climate Deal*, HILL (June 1, 2017), https://perma.cc/EP7E-DCGE.

234 Michael R. Pompeo, *On the U.S. Withdrawal from the Paris Agreement*, U.S. DEP'T OF STATE (Nov. 4, 2019), https://perma.cc/4N8F-8UFY (emphasis added).

The cost-benefit calculi for different climate migration responses are more conjectural than the Trump administration's statement and general global inaction might suggest. While both developing and developed states face climate change-related economic losses, it is still widely presumed that developed states stand to lose relatively more, and developing states stand to gain relatively more, from most major climate change action.[235] The likelihood of free riders may disincentivize developed states from abating global climate problems, even though collective action might benefit all states more than collective inaction.[236] Uncertainty further complicates the cost-benefit calculi.[237] Remaining gaps in empirical information about climate change's impacts, compounded by vast spatial and temporal scales, problematizes the very notion of a rational, objective, and informed cost-benefit analysis of climate change migration responses.[238] Although empirical research overwhelmingly shows climate change is a formidable reality—indeed, U.N. Secretary-General António Guterres observed the unfolding "reality is proving to be worse than scientists had foreseen"[239]—attributing precise cost figures to climate change has proven to be challenging, given how multifaceted and omnipresent climate change is.[240] States are faced with the Sisyphean task of assessing and forecasting the costs of climate change, climate migration, and policy and institutional responses to such phenomena, despite misunderstanding or lack of understanding about certain aspects of climate change.[241] Willful ignorance adds fuel to this

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235 This is largely because developing states are currently bearing the brunt of anthropogenic climate change's effects. *See, e.g.*, INT'L ORG. FOR MIGRATION, CLIMATE CHANGE AND MIGRATION IN VULNERABLE COUNTRIES, at iii (2019) (asserting that policy achievements in the climate migration domain "are particularly relevant" to least developed countries, landlocked developing countries, and small island developing states); *Low-Income Countries Hit Hardest by Soaring Costs of Climate-Related Disasters*, U.N. CLIMATE CHANGE (Oct. 11, 2018), https://perma.cc/HPL3-WC5Q (noting how the countries suffering the most from climate change are those contributing least to emissions).

236 *See* Wiener, *supra* note 227, at 689–90, 744–45.

237 For a definition of "uncertainty," see IPCC WG III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT, *supra* note 60, at 155 ("'Uncertainty' denotes a cognitive state of incomplete knowledge that results from a lack of information and/or from disagreement about what is known or even knowable. It has many sources ranging from quantifiable errors in the data to ambiguously defined concepts or terminology to uncertain projections of human behaviour.").

238 *Cf.* Douglas Kysar, *Climate Change, Cultural Transformation, and Comprehensive Rationality*, 31 B.C. ENV'T AFF. L. REV. 555, 585–86 (2004) ("[D]ifficult and unavoidable choices about how to distribute potentially massive costs and benefits among generations are elided through an elaborate mathematical fiction, the discount rate.").

239 António Guterres, U.N. Secretary-General, Speech at the World Economic Forum Annual Meeting (Jan. 24, 2019).

240 *See supra* note 225 and accompanying text; *cf.* Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1388 (2016) ("When agencies face regulatory choices premised on guesses about the effects of climate change, . . . they face choices in which any probability assessments lack respectable epistemic foundations—they face genuine uncertainty.").

241 *See* JAMES W.C. WHITE ET AL., NAT'L RESEARCH COUNCIL, ABRUPT IMPACTS OF CLIMATE CHANGE: ANTICIPATING SURPRISES 2 (2013) (emphasizing the importance of

fire: while some abrupt changes to the climate system may be hard to anticipate,[242] some changes may be surprising only by virtue of an unwillingness to consider their possibility, perpetuated by anthropogenic climate change deniers and skeptics.[243] Political expediency may spur certain policymakers to complicity in distorting public perceptions of anthropogenic climate change or in directing public attention to more salient issues, especially for states where climate change is less acutely felt by their residents than, for example, low-lying atoll or drought-prone states.

Just as the exact costs and benefits of different climate migration responses are nebulous, the costs of potentially irreversible changes to the climate system, such as the imminent sinking of low-lying atoll states[244] or changes in permafrost carbon release, are hard to appraise.[245] Studies quantifying the global economic toll of climate change and the upside of mitigation, such as the 2020 retrospective study modeling the costs of delayed climate change mitigation action to be in the order of trillions of dollars,[246] are often overlooked in policymaking because state actors do not typically plan on such considerable scales.[247] When faced with so many uncertain variables, state governments may take into account factors other than absolute national welfare interests when designing climate change and climate migration policies.[248] These additional considerations may be heavily influenced by preexisting political predispositions, risk appetites,[249] and "simplified decision rules such as a preference for the status quo."[250] In this way, cost-benefit calculi regarding climate migration responses are prone to be value-laden rather than clinically objective.

The end result is, in the words of legal scholars Jody Freeman and Andrew Guzman, "a curiously isolationist approach to a truly global

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understanding the risks from abrupt climate change and gradual climate change). *But see* Max H. Bazerman, *Climate Change as a Predictable Surprise*, 77 CLIMATIC CHANGE 179, 179 (2006) (analyzing climate change as "predictable surprise": that is, "an event that leads an organization or nation to react with surprise, despite the fact that the information necessary to anticipate the event and its consequences was available").

242 *See* WHITE ET AL., *supra* note 241, at 13.

243 *See generally* Jean-Daniel Collomb, *The Ideology of Climate Change Denial in the United States*, EUR. J. AM. STUD., Spring 2014, at 1, 7–11 (documenting the trends undergirding the U.S. climate denial movement).

244 *See supra* notes 53, 68–70 and accompanying text.

245 *See* IPCC WG I CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT *supra* note 59, at 70–71.

246 Benjamin M. Sanderson & Brian C. O'Neill, *Assessing the Costs of Historical Inaction on Climate Change*, 10 SCI. REP. 9173 (2020).

247 *See* Gersen & Vermeule, *supra* note 240, at 1387–88 (discussing agency decision-making).

248 *See id.* (examining factors considered during agency decision-making regarding climate change).

249 *See* IPCC WG III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT, *supra* note 60, at 6 ("Individuals and organizations differ in their degree of risk aversion and the relative importance placed on near-term versus long-term ramifications of specific actions.").

250 *Id.*

problem."[251] The approach leaves inadequately addressed economic "spillover effects," such as shocks to supply and demand in trade with foreign states,[252] slow-downs in financial markets,[253] and increases in unauthorized immigration to the United States.[254] Such effects of a rudimentary economic approach to climate change mitigation, as well as effects on the spread of infectious disease,[255] the loss of biodiversity,[256] and the consequent decline in food and clean water sources,[257] would likely threaten national security. The next Part delves deeper into the securitization of climate migration.

B. Climate Migrants as Security Threats

In addition to economic issues, national security issues factor into states' ambivalence toward comprehensive climate migration responses. As with economic considerations, security concerns are not purely objective reflections of threats to security. Both climate change and migration are often independently framed as security threats.[258] Climate change is believed to threaten national security through a number of mechanisms. For instance, an increase in extreme weather events may compound public health crises and contribute to societal breakdowns and conflicts in developing states.[259] Drastic changes in temperature, precipitation, and sea level may diminish agricultural productivity, thus aggravating food and water scarcity and inducing groups to migrate and to come into conflict.[260] A 2018 U.S. Global Change Research Program report described the "cascading impacts" of climate change on national security;[261] a 2020 Center of Climate and Security report warned that even scenarios of low global warming would create "severe risks to national and global security" and that higher levels of global warming

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251 Freeman & Guzman, *supra* note 231, at 1539.

252 *See id.* at 1567–74. Although scholars and politicians often assume climate change will have minimal impact on American trading interests, climate change could diminish productivity and trade flows in numerous ways, exacerbated by protectionism as a response to climate change. *See id.*

253 *See id.* at 1574–75.

254 *See id.* at 1586.

255 *See id.* at 1587–94.

256 *See id.* at 1556; *see also supra* note 64 and accompanying text (linking global warming to ecosystem disruption, which may include biodiversity loss).

257 *See* Freeman & Guzman, *supra* note 231, at 1560–62.

258 Hirotaka Fujibayashi & Mikiyasu Nakayama, *An Option To Avoid the Sudden Mass Influx of Migrants Resulting from Worldwide Environmental Threats*, 5 INT'L J. SOC. SCI. STUD., Jun. 2017, at 1, 1–2.

259 *See* U.N. GAOR, 74th Sess., 4th & 5th mtg., U.N. Doc. GA/EG/3516 (Oct. 8, 2019) (discussing different countries and how they are suffering from climate change).

260 *See* Bryne, *supra* note 18, at 766 (addressing how migration can be affected by natural disasters as well as more "incremenetal changes" caused by climate change factors, such as "elevated temperatures, lack of access to resources, [and] sea level rise").

261 U.S. GLOBAL CHANGE RES. PROGRAM, IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II, at 30 (2018).

would "pose catastrophic, and likely irreversible, global security risks."[262] According to UNEP, forty percent of intrastate conflicts in the past six decades were connected to the control and allocation of natural resources,[263] a percentage that is susceptible to increase as climate change exacerbates competition for water, food, and other resources. Even the IPCC acknowledges "[c]limate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers of these conflicts such as poverty and economic shocks,"[264] while recognizing that the causal relationship between climate change and armed conflicts is disputed.[265] Ironically, many of the same developed states expressing concerns about the threats posed by climate change to national security are ambivalent about taking radical action to address climate change.[266]

Resistance to climate migration also stems from broader concerns about mass migration. The international refugee regime operates within a world of sovereign states, with international refugee instruments that preserve the right of a nation-state to determine who may traverse and reside within its borders.[267] In the wake of the war on terror, which stoked fears of unauthorized migration[268] and coincided with growing concerns

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262 NAT'L SECURITY, MILITARY & INTELLIGENCE PANEL ON CLIMATE CHANGE, A SECURITY THREAT ASSESSMENT OF GLOBAL CLIMATE CHANGE: HOW LIKELY WARMING SCENARIOS INDICATE A CATASTROPHIC SECURITY FUTURE (2020), https://perma.cc/CE8N-S4WE.

263 UNEP, FROM CONFLICT TO PEACEBUILDING: THE ROLE OF NATURAL RESOURCES AND THE ENVIRONMENT 8 (2009).

264 IPCC WG II CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT, *supra* note 35, at 73.

265 *Id.* at 732–33, 773.

266 *See* Brady Dennis, *In Bleak Report, U.N. Says Drastic Action Is Only Way To Avoid Worst Effects of Climate Change*, WASH. POST (Nov. 26, 2019), https://perma.cc/YJ54-S7W4 (stating that "[t]he sobering report comes at a critical moment, when it remains unclear whether world leaders can summon the political will take the ambitious action scientists say is essential. So far, the answer has been no," and describing how different countries have declined their investments in climate change solutions or increased their carbon dioxide output).

267 *See, e.g.*, G.A. Res. A/RES/71/1, New York Declaration for Refugees and Migrants ¶ 24 (Sept. 19, 2016) (acknowledging that "States have rights and responsibilities to manage their borders"); *cf.* NEVZAT SOGUK, STATES AND STRANGERS: REFUGEES AND DISPLACEMENTS OF STATECRAFT 189–91 (1999) (delineating the relationships between humanitarian interventions in refugee crises and statecraft in the late twentieth century); T. Alexander Aleinikoff, *State-Centered Refugee Law: From Resettlement to Containment*, 14 MICH. J. INT'L L. 120, 120 (1992) (arguing that "[t]he concept of refugee both reflects and problematizes the modern construction of an international system of states" comprised of "legally equal, sovereign states"); Wyman, *supra* note 230, at 442 (noting that the international refugee regime "limit[s] the right of states to exclude individuals at risk of imminent harm, although not comprehensively").

268 *E.g.*, Mark Krikorian, *Keeping Terror Out: Immigration Policy and Asymmetric Warfare*, 75 NAT'L INTEREST 77, 85 (2004) (arguing for stricter "across-the-board immigration law enforcement" in the aftermath of 9/11, "[s]ince there is no way to let in 'good' illegal aliens but keep out 'bad' ones"); *see* Faye Donnelly, *In the Name of (De)securitization: Speaking Security to Protect Migrants, Refugees and Internally Displaced Persons?*, 99 INT'L REV. RED CROSS, 2017, at 241, 247 (addressing the devastating effects of escalating macrosecuritization); John Tirman, *Immigration and Insecurity: Post-9/11 Fear in the United States*, MIT CTR. FOR INT'L STUD. AUDIT OF THE CONVENTIONAL WISDOM 1–2 (2006) (describing the

about a widespread migration "crisis,"[269] the United States and many European states have moved to close their national borders to presumed foreign threats, even to those legitimately seeking refugee and asylee status.[270]

Given that both climate change and mass migration are viewed as security threats, it is unsurprising climate migration has also been a target of securitization. The dehumanization of individuals driven to migrate by anthropogenic climate change has persisted in alarmist literature and rhetoric.[271] Apocalyptic imagery of irrepressible waves of climate migrants crashing through the "gates" into developed states has percolated into academic and policy discourses.[272] In 2019, the U.N. Political Affairs chief joined a trend among scholars and practitioners in

target of Muslims in countries around the world). *But see* Jonathan W. Moses, *The Politics of Immigration: Introduction to a Special Issue on US Immigration*, 4 EUR. J. AM. STUD., 2009, at 1, 1, 6 ("In a context characterized largely by fear, the war on terror quickly and easily morphed into a war on the foreigner. . . . As we distance ourselves from the horrific events of September 2001, . . . United States will need to re-think its attitude about undocumented workers.").

269 *See* Nick Miroff, *Faced with Migration 'Crisis,' U.S. Border Chief Finds No Easy Fix in Central America*, WASH. POST (Sept. 30, 2018), https://perma.cc/WS8Y-F9VK; John Burnett, *The Differences Between The European Migration Crisis and the Influx to the U.S.*, NAT'L PUB. RADIO (Nov. 30, 2018), https://perma.cc/M84B-4BK8 (discussing President Trump and the Republican Party's "warning of an approaching invasion of a migrant caravan"); *Europe's Migrant Crisis*, CNN, https://perma.cc/A9RB-TUVB (last visited Nov. 5, 2020); Europe's *Migration Crisis*, COUNCIL ON FOREIGN RELATIONS, https://perma.cc/8QZ3-8RG9 (last visited Nov. 5, 2020) (arguing that migrants have posed the largest challenge to Europe since the European debt crisis); *Fleeing for Our Lives: Central American Migrant Crisis*, AMNESTY INT'L, https://perma.cc/24CH-BTBH (last visited Nov. 5, 2020) (pointing out that the United Nations has called the Central American migrant crisis as a humanitarian crisis); *Refugee and Migrant Crisis*, OXFAM INT'L, https://perma.cc/Q5H7-9PDS (last visited Nov. 5, 2020) (arguing that "[m]igration is not a threat to be stopped, it is a complex phenomenon to be managed"); *cf.* Faber & Schlegel, *supra* note 204, at 9 (describing President Trump's portrayal of refugees as a security threat to American citizens).

270 *See* Bojan Pancevski & Valentina Pop, *Europe Shifts Toward Tougher Approach on Immigration*, WALL STREET J. (June 29, 2018), https://perma.cc/5ZDK-SWE5 (discussing the Australian model of turning away migrants and the U.S. method of using detention camps for immigrants); Kevin Johnson & Alan Gomez, *Trump Administration Activates New Asylum Crackdown; Potentially Valid Claims Could Be Denied*, USA TODAY (July 12, 2018), https://perma.cc/NL3P-7N6X (describing how the Trump administration limited the instances when asylum would be granted); *cf.* Jens Manuel Krogstad, *Key Facts About Refugees to the U.S.*, PEW RES. CTR. (Oct. 7, 2019), https://perma.cc/E6SN-ZDSX (reporting that the Trump administration planned to admit a maximum of 18 thousand refugees in fiscal year 2020, which would be the lowest number since the U.S. Congress established the Federal Refugee Resettlement Program in 1980).

271 *See supra* notes 207–208 and accompanying text.

272 *See* Giovanni Bettini, *Climate Barbarians at the Gate? A Critique of Apocalyptic Narratives on 'Climate Refugees'*, 45 GEOFORUM 63 (2013) (discussing the discourse surrounding climate refugees that frames them as victims to be feared or protected); *see also* Romain Felli, *Managing Climate Insecurity by Ensuring Continuous Capital Accumulation: 'Climate Refugees' and 'Climate Migrants'*, 18 NEW POL. ECON. 337 (2013) (examining apocalyptic narratives of climate refugees); Betsy Hartmann, *Rethinking Climate Refugees and Climate Conflict: Rhetoric, Reality and the Politics of Policy Discourse*, 22 J. INT'L DEV. 233 (2010) (critiquing alarmist rhetoric surrounding climate refugees).

referring to climate change as a "threat multiplier":[273] that is, a force with the potential to catalyze and magnify existing security threats.[274] Using similar and often more sensationalist rhetoric, studies conducted by security scholars, think tanks, and military and intelligence agencies have raised the specter of climate migration, characterizing the exodus of climate migrants as "tides," "floods," or "surges," and underscoring the resulting risks to national and global security.[275] In casting diverse migrants as a monolithic "other,"[276] the securitization of migration is similar in one respect to the humanitarian approach.

The persuasive power of securitization lies in its appeal to fear, which might at times foster action more than humanitarianism's appeal to empathy or altruism but requires a delicate balance. Certain concerns related to climate migration may be justified, especially given that the current and projected impacts of climate change are too often downplayed or ignored.[277] Viewing climate migration as a security threat may convince states to take the necessary steps to address anthropogenic climate change and acknowledge those whom it has displaced. Understanding the implications of climate migration for national security could prompt states of destination to accept more responsibility for mitigating anthropogenic climate change in the first place and for partnering with states of origin on climate change mitigation and adaptation initiatives. Conversely, viewing climate migration and migrants themselves as security threats could impel states to narrow paths of entry and reinforce their military capabilities, as is their right under the current paradigm of state sovereignty.[278]

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273 *Climate Change Recognized as 'Threat Multiplier', UN Security Council Debates Its Impact on Peace*, U.N. NEWS (Jan. 25, 2019), https://perma.cc/2KQM-KB6W.

274 *See Shared Vision, Common Action: A Stronger Europe: A Global Strategy for the European Union's Foreign And Security Policy*, at 29 (2016) (identifying climate change as a "threat multiplier that catalyses water and food scarcity, pandemics and displacement"); U.S. DEP'T OF DEFENSE, 2014 CLIMATE CHANGE ADAPTATION ROADMAP (2014) ("In our defense strategy, we refer to climate change as a "threat multiplier" because it has the potential to exacerbate many of the challenges we are dealing with today—from infectious disease to terrorism."); U.S. DEP'T OF DEFENSE, QUADRENNIAL DEFENSE REVIEW 2014, at 8 (2014) ("The pressures caused by climate change will influence resource competition while placing additional burdens on economies, societies, and governance institutions around the world. These effects are threat multipliers that will aggravate stressors abroad . . ."); *Climate Change: A Threat Multiplier*, CANADIAN FORCES C., https://perma.cc/7S7B-RKHM (last modified Apr. 23, 2018); *Climate, Peace and Security: The Time for Action*, EUROPEAN UNION (June 22, 2018), https://perma.cc/4FHG-YAFD (quoting UNFCC Deputy Executive Secretary Ovais Sarmad's characterization of climate change as a "threat multiplier").

275 *See, e.g.*, CHRISTIAN AID, *supra* note 6, at 2, 5 (describing different aspects of climate change that affect migration); Janos Bogardi & Koko Warner, *Here Comes the Flood*, 1 NATURE REP. CLIMATE CHANGE 9, 9–10 (2009); Aryn Baker, *How Climate Change is Behind the Surge of Migrants to Europe*, TIME (Sept. 7, 2015), https://perma.cc/P7TD-J5UK (addressing how some migration is likely due to increased levels of carbon dioxide); *see also* Falstrom, *supra* note 29, at 8 (calling on the need for action "to stem the tide" of environmentally displaced persons).

276 Donnelly, *supra* note 268, at 254; *see also supra* note 203 and accompanying text.

277 *See supra* notes 239–243 and accompanying text.

278 *See supra* note 267 and accompanying text.

It is critical not to conflate the real threats of anthropogenic climate change and climate migration with the hyperbolized "threats" posed by climate migrants themselves. While both states of origin and states of destination face legitimate challenges with respect to climate migration, there is a danger in depicting climate migrants themselves as a horde of dehumanized menaces. Securitization may incite fears about migrants that verge on xenophobia: these fears paint an ominous picture of an incursion of migrants into states—"storming the wall," real or metaphorical, in the process—and destabilizing the economy and society of their destination.[279] Related are fears of uncertainty: that is, fears about the changes that climate migration, and climate change more broadly, will bring.[280] Arising at the intersection of two politically and psychologically fraught phenomena, climate change and migration, climate migration has galvanized responses that sound in control, exclusion, and even demonization of an imagined "other."[281] The following Part puts forward guiding principles for a more humane approach to climate migration that would be grounded in empirical reality and would make migrants the focal point of solution-making.

V. PRUDENTIAL HUMANITARIANISM: A HYBRID FRAMEWORK

> *We are at a crossroads. Do we continue on our current path, which will lead to a bleak future for humankind, or do we pivot to a more sustainable development pathway? That is the choice our political leaders must make, now.*
>
> — Joyce Msuya, Acting Executive Director of U.N. Environment[282]

Together, Parts III and IV highlighted the strengths and shortcomings of humanitarianism and prudentialism as approaches to climate migration. This Part attempts to lay the groundwork for a new framework of prudential humanitarianism, integrating elements of both existing frameworks, while also rooting the hybrid framework in distinct, concrete principles. The proposed prudential humanitarian framework sidesteps the path of bolstering ethical arguments with alarmist rhetoric. While appealing to publicly imagined communities can galvanize support for humanitarian efforts, relying on fearmongering can be more problematic than productive. As this Part posits, there may be more effective ways to awaken the public consciousness and to foster lasting

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279 *See* TODD MILLER, STORMING THE WALL: CLIMATE CHANGE, MIGRATION, AND HOMELAND SECURITY 22 (2017) (discussing the average number of people displaced per year).

280 *See supra* notes 236–249 and accompanying text.

281 *Cf.* EDWARD W. SAID, ORIENTALISM 1–2 (1995) (describing how the West constructed the Orient "as its contrasting image, personality, experience" to help to define the West itself).

282 *UN: Ecological Damage Putting Millions of Lives at Risk*, U.N. CLIMATE CHANGE (Mar. 15, 2019), https://perma.cc/UZA6-ZNSW.

state commitment to climate migration action. Most notably, prudential humanitarianism moves humanitarianism beyond one of its historical focuses—human rights transgressions directly linked to deliberate human conduct.[283] Prudential humanitarianism recognizes climate change phenomena are in part the product of human conduct that cannot neatly be traced to individuals or nations but that indelibly impact individual and national rights, welfare, and security, sometimes through tortuous means. Part V.A grounds prudential humanitarianism in international political realities, highlighting how globalization and interconnectedness have created an environment in which there are both pressing ethical and prudential reasons for addressing climate migration. Part V.B then sets forth the pillars of prudential humanitarianism: 1) empirical bases, 2) resilience, 3) substantive equality, and 4) climate migrant subjectivity.

A. Reframing Climate Migration as a Complex and Pressing Issue Demanding Global Cooperation

The present global order encompasses a constellation of cross-continental networks and relationships.[284] Since the 1990s, virtually all states have embedded themselves in global exchanges of goods, capital, people, and knowledges, as well as global politics and global governance systems.[285] The economic, political, and social transformations brought on by globalization have included the emergence of global environmental and climate problems implicating and impacting persons and states worldwide.[286] While globalization "does not make distance irrelevant,"[287]

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283 *See* U.N. Human Rights Council, Progress Report on the Research-Based Report of the Human Rights Council Advisory Committee on Best Practices and Main Challenges in the Promotion and Protection of Human Rights in Post-Disaster and Post-Conflict Situations, U.N. Doc A/HRC/27/57, at 6 (2014) (defining "humanitarian crises" as including rises arising out of man-made disasters, such as armed conflicts, as well as natural disasters and other emergencies); *Humanitarian Policy*, INT'L COMM. OF THE RED CROSS (ICRC), https://perma.cc/4LF9-N3HB (last visited Aug. 9, 2020) (describing the aim of the ICRC's humanitarian policy as being "to ensure better protection and assistance for people affected by armed conflict and other situations of violence").

284 Globalization accelerated and gained traction in scholarship starting in the 1990s. *See* DAVID HELD ET AL., GLOBAL TRANSFORMATIONS: POLITICS, ECONOMICS, AND CULTURE 2 (1999) (observing a "general acknowledgement of a real or perceived intensification of global interconnectedness"); SASKIA SASSEN, GLOBALIZATION AND ITS DISCONTENTS, at xxi, xxv (1998) (exploring issues associated with globalization, such as the globalization of labor and migration); Robert O. Keohane & Joseph S. Nye Jr., *Globalization: What's New? What's Not? (And So What?)*, FOREIGN POL'Y, Spring 2000, at 104, 105 ("Globalism is a state of the world involving networks of interdependence at multicontinental distances.").

285 *See* HELD ET AL., *supra* note 284, at 49; Keohane & Nye, *supra* note 284, at 105.

286 *See* Keohane & Nye, *supra* note 284, at 106–07 (accounting for environmental globalism—that is, "the long-distance transport of materials in the atmosphere or oceans . . . that affect human health and well-being," much of which "has been induced by human activity"); *id.* at 117 (underscoring "the multiple issues connecting societies").

287 *Id.* at 117; *see also supra* notes 204–205 and accompanying text (discussing the significance of distance in humanitarianism).

it "shrinks distance,"[288] opening up possibilities for collaboration—and conflict—across multiple continents.

A powerful incentive and backdrop for coordinating responses to global issues such as climate migration is the emerging reality of intricate interconnectedness. When the current global order could "be set back, perhaps even reversed, by cataclysmic events, as happened in earlier phases of globalization,"[289] it would ostensibly be in the long-term interest for developed states to partner with developing states to formulate and carry out climate migration responses. Indeed, it may be the imperative of leaders of developed states in an interdependent world to consider and cooperate with other states.[290]

While the landscape of climate migration responses is still far from this brand of simultaneously self-interested and broadly beneficial humanitarianism, certain recent developments bespeak the potential for prudential humanitarianism. One such development was the U.N. Climate Action Summit 2019, where U.N. Secretary-General António Guterres called on world leaders in government, the private sector, and civil society to devise and implement ambitious, concrete plans for addressing climate change.[291] Seventy-seven of the participating states committed to formulating strategies for reaching net zero greenhouse gas emissions by 2050.[292] On the private sector side, a "group of the world's largest asset-owners—responsible for directing more than $2 trillion in investments—committed to move to carbon-neutral investment portfolios by 2050."[293] The Summit highlights the potential for leaders in government and otherwise to pursue new pathways to climate action.[294] Moreover, it signals the appetite for effective practices that may be incorporated into the normative and institutional frameworks of state and non-state actors.[295]

Other indicators of nascent prudential humanitarianism include the 2010 UNFCC Cancun Agreement's call for responses to climate change-induced displacement, migration, and planned relocation,[296] the 2015 UNFCC Paris Agreement's establishment of a task force dedicated to addressing climate change-induced displacement,[297] and the 2018 U.N.

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288 Keohane & Nye, *supra* note 284, at 117.

289 *Id.* at 118.

290 *See* Richard Beardsworth, *Cosmopolitanism and Realism: Towards a Theoretical Convergence?*, 37 MILLENNIUM: J. INT'L STUD. 69, 86–87 (2008) (describing the parameters for wielding political power).

291 António Guterres, U.N. Secretary-General, Secretary-General's Remarks at Closing of Climate Action Summit, (Sept. 23, 2019), https://perma.cc/Y9YL-AJBV.

292 *Id.*

293 *Id.*

294 *Id.*

295 *Id.*

296 Cancun Climate Change Conference, *The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention*, ¶ 14(f), FCCC/CP/2010/7/Add.1 (Mar. 15, 2011).

297 *Human Mobility and the Paris Agreement*, U.N. CLIMATE CHANGE (May 19, 2016), https://perma.cc/5V7B-KL7M.

Global Compact for Migration's express recognition of the effects of climate change on migration.[298] Still other signs of capacity for prudential humanitarianism have come from non-state actors, including non-governmental organizations, scholars, and advocates campaigning for empirically grounded, globally minded climate migration responses made possible and necessary by contemporary globalization.[299] Together, the aforementioned developments demonstrate the budding promise of a humanitarian framework that draws on empirical reality, appeals to state interests, and cultivates the potential of existing normative and institutional structures, all with climate migrants at the heart.

B. Articulating the Pillars of Prudential Humanitarianism

Prudential humanitarianism would aim to account for the actual costs and benefits of different climate migration responses, to find points of convergence among different states' courses of action, and to develop normative principles for joint responses. A prudential humanitarian framework would rest on four core pillars addressing issues with the application of conventional humanitarianism and prudentialism to climate migration. As described below, rather than impose universal rules to the wide range of climate migration contexts, these core principles would shape governmental and multilateral responses to the manifold forms of climate migration.

1. Foundation in Empirical Reality

First and foremost, prudential humanitarianism would root climate migration responses in empirical reality. Moving beyond the tradition of humanitarianism that relies on relatively abstract moral principles, prudential humanitarianism recognizes the demand from states to rationalize policies and institutions with empirical evidence, especially in the climate change context where a sense of uncertainty is still pervasive.[300] Prudential humanitarianism mobilizes the capacity for the

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298 G.A. Res. 73/195, *supra* note 14, ¶¶ 18(h)–(l). The U.N. Global Compact for Migration, while limited in its voluntary and non-binding nature, marked the first internationally agreed system for managing safe and orderly migration. *See supra* notes 13–14, 182 and accompanying text; *see also* Solheim & Swing, *supra* note 29 ("[The Global Compact for Migration] has the potential to improve the lives and prospects of tens of millions of people . . . while also addressing the concerns that many people have with unregulated migration.").

299 *See* RIGAUD ET AL., *supra* note 7, at 189 (asserting that "[t]he engagement of private actors, civil society, and international organizations is key to building policy frameworks and capacity" to address climate migration); *id.* at 191 (arguing that investment in knowledge, mitigation, and adaptation by all actors, including "the private sector, civil society, and international organizations," may prevent climate migration from becoming a crisis); Naser-Hall, *supra* note 134, at 293 (describing recent collaboration of stakeholders in civil society, academia, and the public and private sectors in seeking a global solution to the rise in environmentally displaced persons as part of the Nansen Initiative).

300 *See supra* notes 236–249 and accompanying text; *see also* discussion *infra* Part V.B.2 (outlining resilience to uncertainty as a pillar of prudential humanitarianism).

diffusion of scientific knowledge facilitated by globalization.[301] Especially in light of contrarian actors seeking to distort or deny the realities of climate change,[302] states should join forces in developing and sharing intelligence regarding climate change and climate migration.

Such use of empirical research would seek to develop policies and institutions to fit reality, rather than reinterpret reality to fit existing policies and institutions.[303] This reality would encompass the disparate dimensions of climate change captured in Part II. While developed states may generally be more responsible for anthropogenic climate change drivers, the causes and impacts are experienced differently across different states across the different dimensions.[304] Shared scientific intelligence would provide a sound basis for states to inform their residents of the causes and effects of climate migration for their and other societies, galvanize public support for climate migration responses, and brainstorm policies and institutions with other states from common ground. Outcomes would thus arise from and address empirical reality, resisting inordinate influence from uncorroborated beliefs and political ideologies.

Although global action would still be subject to individual actors' impulses to conduct cost-benefit calculi, shared intelligence would promote more realistic assessments of relevant costs and benefits for states or other actors to take certain courses of actions.[305] Even accounting for concerns about free riders in the intricately interrelated world of climate migration,[306] developed states may reap enough benefits from the production of collective goods, such as climate migration mitigation, to make up for the costs of investing in such goods. Shared intelligence would allow for more accurate calculations of marginal costs and benefits of action, which might theoretically result in less-than-optimal action[307] but would still incentivize states to do more than they would in the absence of shared knowledge and resulting internal and external pressure to act. The more rational stance for states would be to collaborate and cooperate.

Key gaps in empirical evidence include the disparate impacts of climate migration along lines of race, gender, age, disability status, and

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301 Keohane & Nye, *supra* note 284, at 107; G.A. Res. 73/195, *supra* note 14, ¶ 18(h).

302 *See supra* note 243 and accompanying text.

303 *Cf.* MORGENTHAU, *supra* note 213, at 7 (shedding light on the hazard of states using intelligence "for the purpose not of adapting policy to reality but of reinterpreting reality to fit policy").

304 *See* Jocelyn Timperley, *Who Is Really To Blame for Climate Change?*, BBC (June 18, 2020), https://perma.cc/WLJ6-ZDWG (discussing how the world's richest countries are responsible for more carbon dioxide output than the world's poorest countries).

305 *See* Freeman & Guzman, *supra* note 231, at 1542 (describing an example in the climate change context of a cost-benefit calculus of "whether it makes sense for the United States to cut domestic emissions even in the absence of a multilateral agreement binding other high emitting countries to do so").

306 *See supra* note 236 and accompanying text.

307 *See* Freeman & Guzman, *supra* note 231, at 1542 (explaining the benefits of having a more complete accounting regarding climate change).

socioeconomic status;[308] adaptation and migration decision-making dynamics at the household level;[309] less direct consequences of climate change for migration, such as through health problems and food insecurity;[310] and the effects of migration on places of origin, in addition to places of destination.[311]

2. Resilience to Uncertainty

Empirical research in the priority areas identified in the previous Subpart would help to turn ostensibly unforeseeable drivers of climate migration into "predictable surprises."[312] Formal methods are important for guiding actors' perceptions and calculi of different uncertainties when designing climate migration policy.[313] As the IPCC reports, "[w]ith the help of formal methods, policy design can be improved by taking into account risks and uncertainties in natural, socio-economic, and technological systems as well as decision processes, perceptions, values and wealth."[314]

In addition to uncovering and accounting for the otherwise unknowable, prudential humanitarianism seeks to create an institutional environment tolerant of an inevitable amount of uncertainty. Certain scholars, such as Alejandro Camacho, Daniel Farber, and Kathleen Miller, have presented ways of building resilience into climate change

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308 For preliminary work in this field, see IPCC WG II CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT, *supra* note 35, at 6 (recognizing that differences in vulnerability arise from multidimensional inequalities); *see also* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 458 (recognizing that climate change "could exacerbate current gender inequalities . . . [and] place additional burdens on women's health"); discussion *supra* Part II.B.6 (describing the disparate impacts of Hurricane Katrina and the 2017 Atlantic hurricane season on different racial and socioeconomic groups).

309 *See* BOANO, *supra* note 48, at 32 (characterizing migration as "a strategy for risk spreading at the household level"); Gray & Mueller, *supra* note 95, at 140–42 (asserting that "[i]n the rural developing world, the migration of an individual is often primarily a household-level decision").

310 *See* IPCC WG II CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, *supra* note 12, at 458–59 (identifying a need "to examine the impacts of future climate change on other health problems [beyond malaria], e.g., dengue fever, meningitis, etc., and their associated vulnerabilities," as well as "the heightened vulnerabilities associated with HIV/AIDs and periods of climate stress and climate change"); *id.* (highlighting a need for further research into the effects of climate variability and change on local and regional agricultural productivity, including through plant pests and diseases); *see also supra* notes 31–32 and accompanying text (outlining both historical and present-day impacts of food insecurity on climate migration).

311 For an overview of research conducted on the effects of out-migration on places of origin, see RIGAUD ET AL., *supra* note 7, at 33–34.

312 Bazerman, *supra* note 241, at 180.

313 *Cf.* IPCC WG III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT, *supra* note 60, at 6 (acknowledging that individuals and organizations differ in terms of their degrees of perception and tolerance of risks and uncertainties, and that such differences shape their decision-making processes and outcomes).

314 *Id.*

policies, systems, and processes.[315] The United Nations has also contemplated ways to build resilience to natural disasters, especially in developing states.[316] Likewise, as discussed earlier, coping with the unpredictable has been a formidable barrier to global climate migration action.[317] An orientation to uncertainty like the one prescribed by Farber, which treats surprises as relatively common, rather than at the thin "tails" of a distribution of possible events,[318] could help to blunt the shock of the inevitable unknown. Furthermore, greater methodical consideration should be given to how individuals and households perceive and withstand uncertainty when deciding whether and how to migrate.

3. Commitment to Substantive Equality

Prudential humanitarianism would build on traditional humanitarianism's core tenet of equality among humans,[319] calling for climate migration responses that aim for substantive equality rather than formal equality. This approach to equality, which focuses on equal opportunities and equitable outcomes among differently situated persons rather than on identical treatment of said persons,[320] would call for particularized attention to different categories of climate migrants, divided along dimensions of climate change phenomena, and ranging from internal to cross-border, short-term to long-term, somewhat voluntary to essentially compelled, managed to unplanned.[321] As previously discussed, this emphasis on substantive equality may drive states to prioritize certain categories of migrants, such as persons forced to flee floods or other sudden-onset disasters leaving little recourse but to migrate.[322] If the principle of substantive equality is applied at the state level, it would call on developed states that disproportionately emit greenhouse gases and contribute to anthropogenic climate change to take greater responsibility for climate migration responses. Indeed, the most responsible for anthropogenic climate change also tend to be the least

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315 *See* Alejandro E. Camacho, *Adapting Governance to Climate Change: Managing Uncertainty Through a Learning Infrastructure*, 59 EMORY L.J. 1, 7–8 (2009); Daniel A. Farber, *Uncertainty*, 99 GEO. L.J. 901, 905 (2011); Kathleen A. Miller, *Grappling with Uncertainty: Water Planning and Policy in a Changing Climate*, 5 ENV'T & ENERGY L. & POL'Y J. 395, 413–15 (2010).

316 *See* Moushumi Chaudhury, *Strategies for Reducing Vulnerability and Building Resilience to Environmental and Natural Disasters in Developing Countries, Written for Expert Group Meeting on Strategies for Eradicating Poverty To Achieve Sustainable Development for All*, U.N. DEP'T ECON. & SOC. AFF., DIVISION SOC. POL'Y & DEV. 4–5 (2017).

317 *See supra* notes 237–248 and accompanying text; *see also* Johnstone, *supra* note 6, at 3 ("Coping with the unpredictable is perhaps even more of a challenge.").

318 *See* Farber, *supra* note 315, at 904, 944–46 (applying his model of "fat" tails and uncertainty to the climate change adaptation context).

319 *See supra* note 161 and accompanying text.

320 *See supra* note 165 and accompanying text.

321 Cancun Climate Change Conference, *supra* note 296, ¶¶ 14(f), 18.

322 *See* discussion *supra* Part III.A.

imminently susceptible to climate change's effects[323]—the "impacts of climate change are not equal opportunity threats."[324] Prudential humanitarianism urges all actors to be accountable and engaged in climate migration dialogues, while also recognizing that different actors have different capacities and obligations to address the effects of climate change disproportionately borne by vulnerable populations, such as persons displaced by climate change phenomena, left homeless and sometimes stateless.[325]

4. Centering of Climate Migrant Agency

Addressing the failing shared by humanitarianism and prudentialism of downplaying or ignoring agency exercised at the individual or household level, the prudential humanitarian approach would take into account the complex decision-making process that individuals and households undertake in the climate migration context. Underexamined factors in decision-making include considerations of culture,[326] sense of place,[327] and health, including mental health.[328] A lens that should be applied to research into, rhetoric about, and responses to climate migration should be one of migrants as purposive actors, not merely as passive victims of climate change phenomena and systemic failures. Recognizing and taking into account the agency of climate migrants—and, in the case of those affected by climate change who opt for *in situ* adaptation, would-be migrants—could lead to better understanding of and responses to climate migration that reconcile migrant welfare with national and global welfare.

VI. CONCLUSION

The mountain in front of us is very high. But it is not insurmountable. We know how to scale it.

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323 Burkett, *supra* note 228, at 2, 12; *cf. supra* notes 169–170 and accompanying text (observing that climate migrants disproportionately come from developing states, many of which bear relatively little responsibility for anthropogenic climate change).

324 Jonathan Lovvorn, *Climate Change Beyond Environmentalism Part I: Intersectional Threats and the Case for Collective Action*, 29 GEO. ENV'T L. REV. 1, 5 (2016).

325 *See supra* notes 291–299 and accompanying text; Burkett, *supra* note 228, at 4, 12.

326 *See* Wewerinke-Singh, *supra* note 209, at 198.

327 Emily Chamlee-Wright & Virgil H. Storr, *"There's No Place Like New Orleans": Sense of Place and Community Recovery in the Ninth Ward After Hurricane Katrina*, 31 J. URB. AFF. 615, 616–17 (2009); *cf. supra* note 116 and accompanying text (discussing how place-based capital factored into whether those displaced by Hurricane Katrina returned to New Orleans).

328 A handful of scholars have begun to call attention to the mental health implications of climate migration. *See, e.g.*, Maryanne Loughry, *Climate Change, Human Movement and the Promotion of Mental Health: What Have We Learnt from Earlier Global Stressors?*, *in* CLIMATE CHANGE AND DISPLACEMENT 221, 227–28 (Jane McAdam ed., 2010).

— António Guterres, U.N. Secretary-General[329]

The myth of a nature-society divide is breaking down.[330] Humans have left an indelible impact on Earth's climate, which has, in turn, inscribed itself on human surroundings. Soaring temperatures have blighted drought-prone zones, tropical storms have battered coastal communities, and rising tides have swallowed whole settlements.[331] Especially if left unmitigated, climate change will continue to engender migration at unprecedented levels.[332] By shedding light on the numerous drivers of climate migration and the relative merits and weaknesses of humanitarian and prudential approaches to climate migration, this Article calls attention to the need for a new approach commensurate with the magnitude and complexity of climate migration. Perhaps prudential humanitarianism can herald an inflection point in scholarly, legal, and policy approaches to climate migration, with climate migrants as the pivot around which responses revolve.

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[329] António Guterres, U.N. Secretary-General, Secretary-General's Remarks on Climate Change (Sept. 10, 2018), https://perma.cc/V6QP-5Q44.

[330] For an additional critique of the nature-society divide, *see* Piguet, *From Primitive Migration*, *supra* note 130, at 151.

[331] MORRISSEY, *supra* note 9, at 19.

[332] U.N. CLIMATE CHANGE, *supra* note 1.