



Climate Science and Law for Judges: Fundamental Rights

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Fundamental Rights

by **Barry E. Hill and Jarryd C. Page**

This Module focuses on the fundamental rights implicated by climate change, specifically as related to the issues of environmental justice and climate justice. It also details the trends and legal issues judges may expect to see in their courtrooms. Part One defines and explains environmental justice and climate justice. Part Two discusses the legal bases for providing a fundamental right to a clean, safe, healthy and sustainable environment, and a stable climate.

The part briefly examines international declarations and national constitutions, and Environmental Rights Amendments (ERAs) of state constitutions—which are likely to become a common avenue for climate change litigation claims as states increasingly incorporate these provisions into their constitutions. Part Three analyzes other legal approaches, including the public trust doctrine; public nuisance claims; and environmental justice and climate justice laws, that are employed in fundamental rights-related climate change litigation. Part Four briefly addresses additional legal issues such as justiciability and remedies. Many of these issues are dynamic and continually evolving. As such, this Module functions as a living document and will be subject to revisions, as necessary, in the future.

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I. Environmental Justice and Climate Impacts

On July 28, 2022, the UN General Assembly (UNGA) declared in a historic resolution that access to a clean, healthy, and sustainable environment is a universal human right.¹ At the same time, the General Assembly determined that environmental damage has negative implications, both direct and indirect, for the effective enjoyment of all fundamental human rights. They further declared, the fundamental human rights to life, health, food, housing, dignity, and self-determination are threatened by climate change impacts such as sea-level rise, increased flooding, drought, and wildfires, among others.

As described in detail in the Climate Justice Module, scientific studies demonstrate that these adverse impacts are not equally distributed. This inequity results in disparate fundamental rights impacts on different groups of people, characterized in the United States as environmental and climate justice. This Part briefly introduces the concepts of environmental justice and climate justice, then turns to detailing how the adverse environmental and public health impacts of climate change on fundamental human rights are currently being manifested—and challenged—in the United States.

A. Defining Environmental Justice and Climate Justice

1. What Is Environmental Justice?

In the United States, demographics and property ownership patterns are starkly defined by race. This composition was driven by a powerful system of federal, state, and local laws and policies, originating with the New Deal, that supported housing development, property ownership, and education opportunities for vast numbers of Americans—excluding African Americans.² “Redlining” was a discriminatory practice supported by the federal government in which banking services were withheld from potential customers who resided in neighborhoods classified as “hazardous” to investment. These neighborhoods had significant numbers of minorities and low-income residents. This practice led to the denial of credit, insurance, and healthcare and determined the geographic patterns of American cities today. Although outlawed by the U.S. Congress with the Fair Housing Act of 1968,³ the patterns driven by the discriminatory housing laws led ultimately to the proliferation of pollution-generating facilities, as well as the development of food deserts in the

¹ The UN General Assembly adopted Resolution 76/300 with an overwhelming vote of 161 members in favor, 0 members against, and 8 members abstaining. The United States voted in favor of the resolution. Text of the resolution is available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/442/77/PDF/N2244277.pdf?OpenElement>.

² RICHARD ROTHSTEIN, *THE COLOR OF LAW* (2017).

³ The Fair Housing Act of 1968, 42 U.S.C. §§3601 et seq., prohibits discrimination by direct providers of housing, such as landlords and real estate companies as well as other entities, such as municipalities, banks, or other lending institutions and homeowners insurance companies whose discriminatory practices make housing unavailable to persons because of: (1) race or color; (2) religion; (3) sex; (4) national origin; (5) family status; or (6) disability.

neighborhoods excluded from the economic development programs. Simply stated, this is environmental injustice.

As a direct result of this legacy, issues of environmental justice are appearing in state and federal courtrooms with increasing frequency across the country, and judges should be familiar with how the term is defined and used in environmental,⁴ civil rights,⁵ housing, zoning,⁶ land use, and public health litigation. For instance, there could be a personal injury environmental justice claim as a result of suffering harm due to exposure to toxic chemicals or pollution. There could also be a mass tort action for a personal injury lawsuit brought by many plaintiffs or a class action lawsuit that seeks to compensate a group of plaintiffs.

Instances of environmental injustice are many and varied. They may be disputes over the siting of pollution-generating facilities or over the methods of cleanup at contaminated sites. They may also involve a community's lack of access to environmental lawyers and technical expertise, or the community's exclusion from the decisionmaking processes of federal and state environmental regulators. These instances may involve arguments regarding addressing single versus multiple sources of contamination as a result of short-term or long-term exposure. They may be disputes over which populations are most affected by pollution—the resident population, for example, or seasonal agricultural workers (farmworkers), or transient populations (individuals visiting shopping centers, or minority youth having to play soccer on fields at a former municipal landfill that state environmental regulators know was contaminated). They may involve the notion of proximity, that is, the effects of pollution on nearby populations, or the adverse health effects on populations living downstream from industrial plants, or populations affected by off-site operations. And they may involve allegations that federal and state environmental regulators are not enforcing environmental laws, regulations, and policies equally.

There is no federal statutory definition of environmental justice, but the goal of ensuring environmental justice for all communities is nevertheless embedded into environmental laws. The National Environmental Policy Act (NEPA), as well as state environmental policy acts (commonly referred to as “Little NEPAs”) and federal and state programs that address clean air and water, emergency planning and community right-to-know, waste management and toxics cleanup, tribal

⁴ Environmental justice claims can cover many different environmental issues, such as: (a) toxic waste facilities being sited near minority communities; (b) air and water pollution by manufacturing and industrial facilities; (c) exposure to toxic chemicals; or (d) exposure to unacceptable levels of traffic-caused air pollution.

⁵ A plaintiff may be able to fight an instance of environmental injustice by invoking the Civil Rights Act of 1964, which prohibits a government agency from discriminating on the basis of race, color, or national origin while receiving federal funding, or the Fourteenth Amendment to the U.S. Constitution, which states that no person shall be denied equal protection of the laws.

⁶ A plaintiff may argue that zoning laws are unfavorable to a minority community.

consultations, grants procurement, and Freedom of Information Act requests all provide for procedural requirements to protect equity.⁷

The U.S. Environmental Protection Agency (EPA) has defined and provided guidance on the issue since 1993. EPA defines environmental justice as the *fair treatment* and *meaningful involvement* of all communities in the government’s decisionmaking processes (see Box 1). EPA’s Office of General Counsel recently issued updated guidance on this topic in May 2022.⁸ The guidance details various legal authorities EPA has identified that can advance the Agency’s goal of ensuring environmental justice for all communities. Moreover, the EPA created an Office of Environmental Justice and External Civil Rights in late 2022 that provides leadership within the Agency related to environmental justice and assists with cross-agency implementation of various environmental justice priorities.

2. What Is Climate Justice?

Climate justice, on the other hand, is an extension of environmental justice in the context of climate change.

Additional elements of climate justice center on intergenerational equity, as well as international dynamics of the Global North and Global South. Issues of intergenerational equity, protecting the interests of future generations, are at the center of many lawsuits filed by Our Children’s Trust, including *Juliana* (see below). For more on these aspects, see the Climate Justice module.

Box 1. Defining Concepts: Environmental Justice

EPA defines environmental justice as “the *fair treatment* and *meaningful involvement* of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

EPA explains that “*Fair treatment* means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal environmental programs and policies.”¹ In other words, environmental harms and risks should not be borne disproportionately by any particular community.

Meaningful involvement refers to the importance of involving communities in the government’s decisionmaking processes early and often. Specifically, EPA states that “*Meaningful involvement* means that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public’s contribution can influence the regulatory agency’s decision; (3) the concerns of all participants involved will be considered in the decisionmaking process; and (4) the decisionmakers seek out and facilitate the involvement of those potentially affected.”

U.S. EPA, TOOLKIT FOR ASSESSING POTENTIAL ALLEGATIONS OF ENVIRONMENTAL INJUSTICES 9 (2004), <https://www.epa.gov/sites/default/files/2015-02/documents/ej-toolkit.pdf>.

⁷ ENV’T L. INST., OPPORTUNITIES FOR ADVANCING ENVIRONMENTAL JUSTICE: AN ANALYSIS OF U.S. EPA STATUTORY AUTHORITIES (Nov. 2001), <https://www.epa.gov/sites/default/files/2015-02/documents/eli-opportunities4ej.pdf>; ENV’T L. INST., A CITIZEN’S GUIDE TO USING FEDERAL ENVIRONMENTAL LAWS TO SECURE ENVIRONMENTAL JUSTICE (2002), https://www.epa.gov/sites/default/files/2015-02/documents/citizen_guide_ej.pdf.

⁸ U.S. ENV’T PROT. AGENCY, EPA LEGAL TOOLS TO ADVANCE ENVIRONMENTAL JUSTICE (May 2022), <https://www.epa.gov/system/files/documents/2022-05/EJ%20Legal%20Tools%20May%202022%20FINAL.pdf>.

Judges are likely to see increasing references to this term as the adverse environmental and public health impacts of climate change become more common and widespread. Simply stated, climate change or global warming has magnified and made immediate many of the chronic problems of environmental justice because it acts as a threat multiplier, which means it exacerbates the existing inequities in low-income, minority, and Indigenous communities.

For decades, climate scientists have documented how, among other things, climate change has resulted in: (a) warmer temperatures, wildfires, and heat waves; (b) more severe and more frequent storms causing flooding and landslides destroying homes and communities and costing billions of dollars; (c) increased drought; and (d) the uneven effects of precipitation (rain and snow). The human health effects of these disruptions include increased respiratory and cardiovascular diseases; injuries and premature deaths related to extreme weather events; changes in the prevalence and geopolitical distribution of food and waterborne illnesses and other infections and diseases; and threats to mental health. When coupled with the fact that minority and low-income communities are already suffering disproportionately from the adverse health impacts of pollution, climate injustices will only exacerbate the human exposure, toxicity assessments, and risk characterizations of the residents of those communities. In sum, climate change exacerbates health inequities. For more detail on these topics, see the Impacts of Climate Change and the Quantifying Risks and Costs Modules.

The federal government understands and appreciates the linkage between climate change, environmental justice, climate justice, and health equity. For example, the U.S. Department of Health and Human Services (HHS) protects the health and well-being of all Americans from the ravages of climate change, including minority and/or low-income communities and Indigenous communities. According to HHS:

Climate change represents a significant risk to the health of people living in the United States now and in the coming decades. Climate change is worsening existing threats from climate-related weather events (e.g., extreme heat, flooding, wildfires) and chronic burdens on physical and mental health, and introducing new health threats in many areas. These impacts are felt the most in communities that have long been the victims of economic and social discrimination which makes it harder for them to prepare, respond, and recover to climate threats.

The very same communities that have lived with these climate impacts also are experiencing the brunt of environmental injustice. Climate change is an environmental justice issue. There are factors . . . that can lead to certain groups to experience both a disproportionate share of exposures to both environmental pollution and climate change hazards. In this way, climate change adds to the cumulative stresses experienced by environmental justice communities.

These communities have struggled for years to access clean air, safe drinking water, nutritious food and safe shelter, and are disproportionately exposed to pollution and associated harm that seriously damages their health.

HHS aims to protect everyone in the country and their health from climate change and environmental justice, especially the highest-risk communities, from the threats associated with climate change while simultaneously seeking to tackle profound health disparities and environmental injustices that put these communities at exceptional risk.⁹

In protecting against instances of climate injustice, HHS established the Office of Climate Change and Health Equity (OCCHE). OCCHE is tasked with, among other things:

- Identifying communities with disproportionate exposures to climate hazards.
- Addressing health disparities exacerbated by climate impacts to enhance community health resilience.
- Fostering innovation in climate adaptation and resilience for disadvantaged communities and vulnerable populations.
- Promoting training opportunities to build the climate and health workforce and empower communities.¹⁰

As with environmental justice, there is no federal statutory definition of “climate justice,” and EPA has yet to issue a formal definition, but in an April 7, 2021, message to all staff, Administrator Michael Regan called on Agency employees to “examine, and appropriately use, the full array of policy and legal tools at our disposal to incorporate environment and climate justice considerations in our analysis, rulemaking, permitting, enforcement, grantmaking, operations, disaster response and recovery, and other activities.”¹¹

At the state level, New York recognizes the harms climate change poses to minority and/or low-income communities. The state has passed both comprehensive environmental justice legislation and climate legislation but has not defined “climate justice.” The two laws explicitly intersect, calling for the state to ensure funds intended to help transition to renewable energy are directed toward

⁹ U.S. DEP’T OF HEALTH & HUMAN SERV., *Climate Change & Health Equity, and Environmental Justice at HHS* (last reviewed Apr. 6, 2022), <https://www.hhs.gov/climate-change-health-equity-environmental-justice/index.html>.

¹⁰ U.S. DEP’T OF HEALTH & HUMAN SERV., *About the Office of Climate Change and Health Equity (OCCHE)* (last reviewed July 25, 2022), <https://www.hhs.gov/ash/ocche/about/index.html>.

¹¹ Letter from Michael Regan, EPA Administrator, to EPA Staff (Apr. 7, 2021), <https://www.epa.gov/sites/default/files/2021-04/documents/regan-messageoncommitmenttoenvironmentaljustice-april072021.pdf>.

historically underserved communities (see Part III.C, D). This demonstrates that climate justice is a concept that can be achieved through multiple avenues and may not be expressed through an explicit definition, but rather incorporated through other environmental justice and climate measures.

On a more local level, the New York City Mayor’s Office of Climate and Sustainability states that “climate justice is the recognition that it is these same historically overburdened communities that are most vulnerable to a rapidly changing climate.”¹² The city created an Office of Climate and Environmental Justice and appointed a chief climate officer.

At the international level, climate justice includes a conversation about the relative contributions to climate change by Global North and Global South countries, and the appropriate allocation of responsibilities to prepare, and pay for, climate impacts. In particular, the conversation focuses on the fact that small island developing states and other developing countries have contributed little to climate change yet are experiencing disproportionate suffering.

Box 2. Defining Concepts: Climate Justice

One useful and representative example of a “climate justice” definition comes from the Mary Robinson Foundation. The Foundation, which closed its doors in 2019, stated that “climate justice links human rights and development to achieve a human-centered approach, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts. Climate justice is informed by science, responds to science and acknowledges the need for equitable stewardship of the world’s resources.”

MARY ROBINSON FOUND.—CLIMATE JUSTICE, *Principles of Climate Justice*, <https://www.mrfcj.org/principles-of-climate-justice/>.

B. Impacts of Climate Change on Fundamental Rights

The adverse impacts of climate change, discussed in the Impacts of Climate Change Module, are extensive and already being felt by many people across the globe, including in the United States. Extreme weather events and natural disasters, sea-level rise, flooding, heat waves, droughts and desertification, water shortages, wildfires, and the spread of tropical and vector-borne diseases “directly and indirectly threaten the full and effective

enjoyment of a range of human rights by people throughout the world, including the rights to life, safe drinking water and sanitation, food, health, housing, self-determination, culture, work and development.”¹³ These impacts are particularly acute in terms of public health (see Figure 1) and in some cases provide the factual basis for climate lawsuits (for a survey of climate litigation, see the

¹² NYC Mayor’s Office of Climate and Sustainability, *Addressing Climate and Environmental Justice Concerns* (last visited Jan. 21, 2022), <https://www1.nyc.gov/site/sustainability/our-programs/environmental-justice.page>.

¹³ OFF. OF THE UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS, *The Impacts of Climate Change on the Effective Enjoyment of Human Rights* (last visited Oct. 19, 2021), <https://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/AboutClimateChangeHR.aspx>.

Overview of Climate Litigation Module). Importantly, impacts will not be uniform across all locations and therefore the rights that are affected and how they are affected will vary by region.

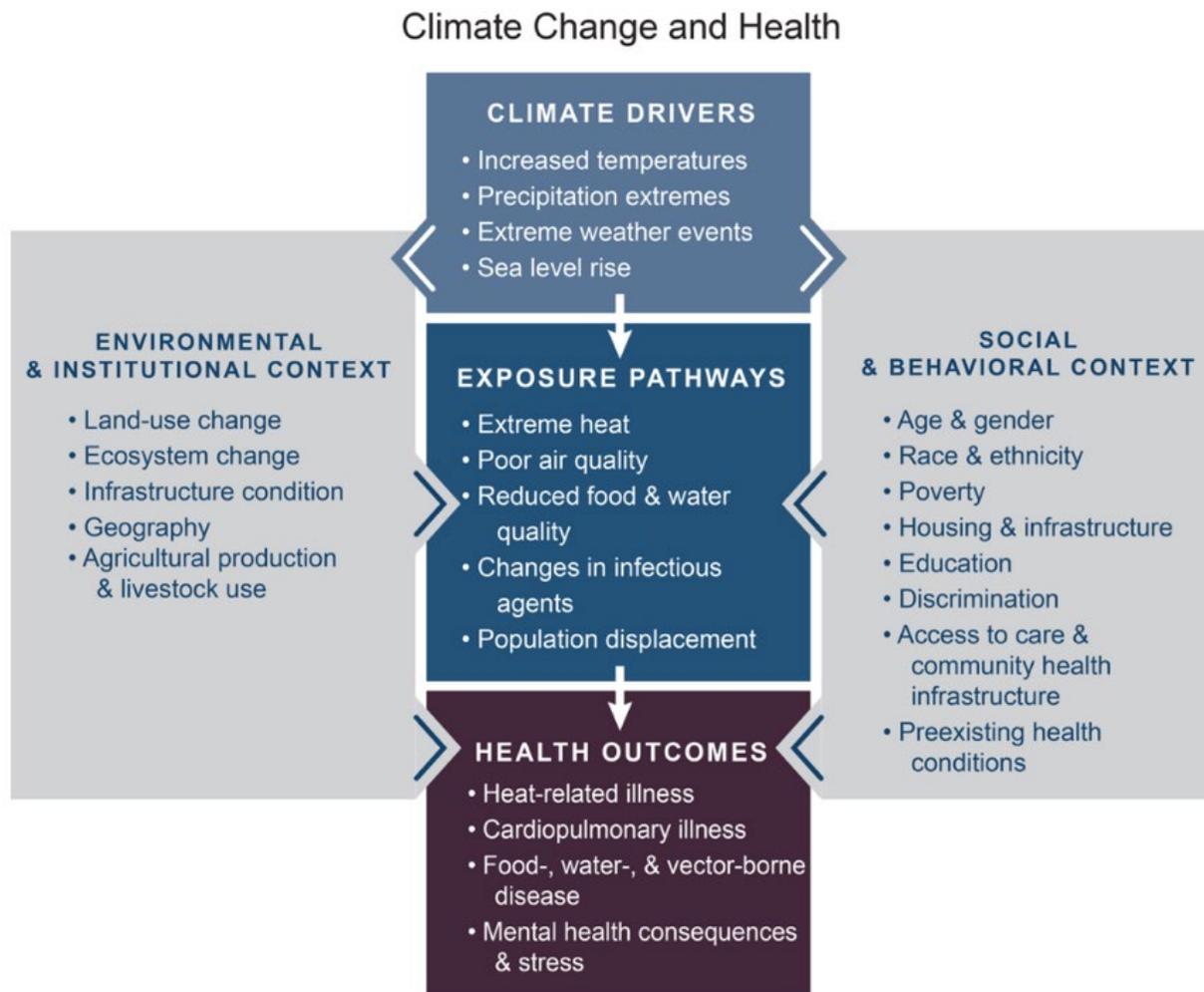


Figure 1. Diagram representing interactions between climate change and health. Source: Fig. 14.1 from U.S. Global Change Research Program, Fourth National Climate Assessment (2018), <https://nca2018.globalchange.gov/chapter/14/>.

1. How Are Disproportionate Climate Impacts Manifested in the United States?

Climate impacts that implicate human rights, particularly impacts related to public health and access to clean water, are affecting different groups of people in the United States disproportionately. The 2018 Fourth National Climate Assessment, a congressionally mandated report collaboratively prepared by 13 federal agencies known as the U.S. Global Change Research Program, states that communities are already being affected by climate change.¹⁴ The adverse physical and mental health

¹⁴ The Fifth National Climate Assessment is scheduled for release in fall 2023 and can be accessed at <https://www.globalchange.gov/nca5>.

effects result from exposures to heat waves, floods, droughts, infectious disease, air, and water quality and are projected to worsen with increased climate change.¹⁵

All regions of the country will be impacted, often in different ways, but these impacts will not fall equally on all people and areas of the country. In some areas, including Florida, the inundation of land by rising seas will result in the increased salinization of the water table and pose problems for a population reliant on freshwater aquifers for drinking water.¹⁶

Race is far and away the strongest indicator for heightened climate risk. EPA's 2021 peer-reviewed social vulnerability analysis of 49 U.S. cities details many of these disproportionate impacts (see Figure 2 below). Specifically, the "Climate Change and Social Vulnerability in the United States" report quantifies six types of impacts, including those to health from changes in air quality and extreme temperature, disruptions to weather-exposed workers, and flooding threats to property. According to the study, minorities and poor Americans are more likely to suffer—and in some cases, to die—from the worst impacts of global warming.¹⁷ African Americans are projected to face higher impacts of climate change compared to all other demographic groups. Under a 2°C (3.6°F) warming scenario, African Americans are 34% more likely to currently live in areas with the highest projected increases in childhood asthma diagnoses. Should warming reach 4°C on average compared with pre-industrial levels, Black Americans would be 59% more likely to die than the general population of the continental United States. Latin Americans and Native Americans are 43% and 37% more likely to live in places where climate change threatens labor opportunities, potentially endangering livelihoods. Minority communities are also in line for more disruptions as sea-level rise endangers coastal roads and other infrastructure and are also less likely to see investment in infrastructure upgrades that will help them adapt. On the other hand, white people own a disproportionate share of the property that would be inundated in high-warming scenarios, according to the study.

One term frequently used in this context is "sacrifice zones," which are a focus of environmental and climate justice efforts because while these areas can cross racial lines, many are in low-income, people of color, Indigenous, or other vulnerable and marginalized communities. Sacrifice zones have been defined by the United Nations Special Rapporteur on Human Rights and the Environment and the Special Rapporteur on Topics and Human Rights, as "regions or communities where extreme or pervasive pollution is causing human rights abuses or violations."¹⁸ Places like Cancer Alley in Louisiana, where high concentrations of petrochemical plants have corresponded with high rates of cancer and other health problems in neighboring communities, or areas of West Virginia, where the

¹⁵ U.S. GLOBAL CHANGE RSCH. PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT (2018), <https://nca2018.globalchange.gov/>.

¹⁶ Barry E. Hill, *Apocalypse or Epiphany*, 34 ENV'T F. 28-31, 29 (Mar./Apr. 2017).

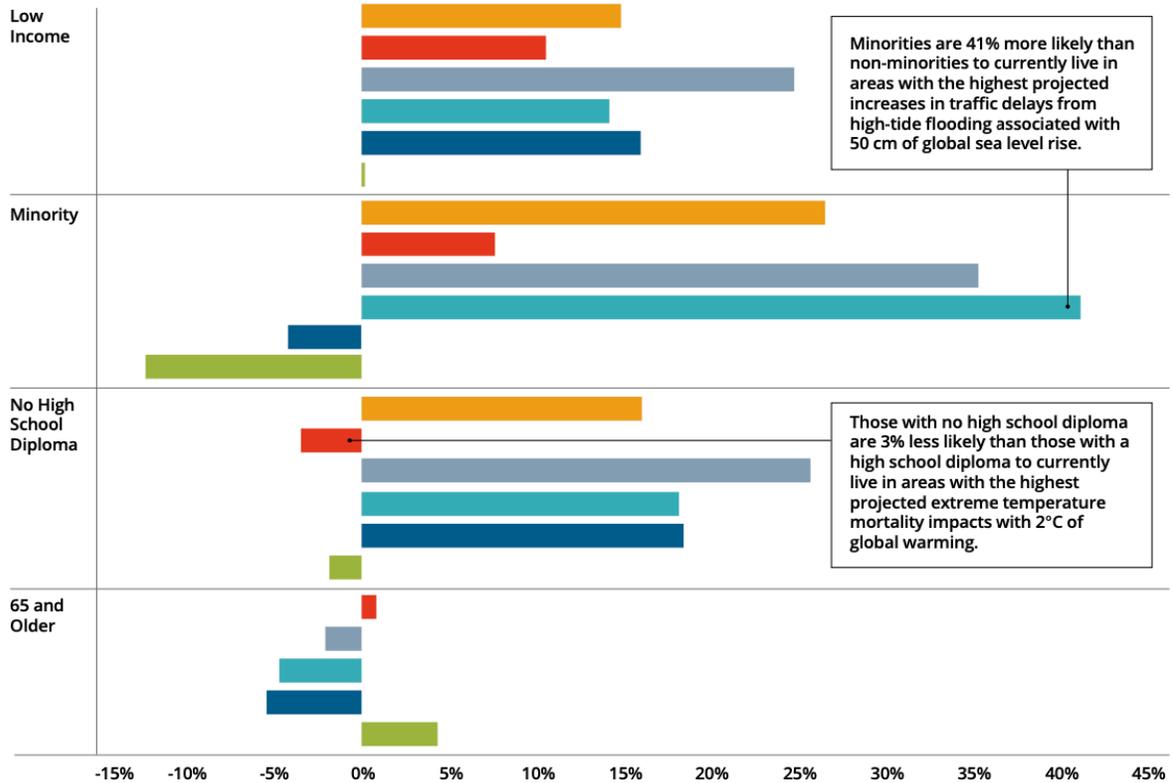
¹⁷ U.S. ENV'T PROT. AGENCY, CLIMATE CHANGE AND SOCIAL VULNERABILITY IN THE UNITED STATES, EPA 430-R-21-003 (Sept. 2021), <https://www.epa.gov/cira/social-vulnerability-report> (see page 16 of the report for how the report uses the term "minority"). These climate impacts reflect the disparity in other environmental harms, e.g., American Lung Association, *State of the Air* (2020) (finding people of color were 61% more likely to live in a county with unhealthy air than white people and are over three times more likely to be breathing the most polluted air than white people.).

¹⁸ Barry E. Hill, *Sacrifice Zones*, 38 ENV'T F. 27-33, 27 (Nov./Dec. 2021).

highest rates of poverty in the state are in areas with the greatest concentration of industry, have been described as such.

Figure ES.2 – Differences in Risks to Socially Vulnerable Groups Relative to Reference Populations with 2°C of Global Warming or 50 cm of Global Sea Level Rise

The estimated risks for each socially vulnerable group are relative to each group's "reference" population, defined as all individuals other than those in the group being analyzed. The estimated risks presented in the chart are for scenarios with 2°C of global warming (relative to the 1986-2005 average) or 50 cm of global sea level rise (relative to 2000). For the inland flooding analysis, the baseline is 2001-2020. Results for additional scenarios are provided in the following chapters and appendices.



- AIR QUALITY AND HEALTH***
New asthma diagnoses in children due to particulate air pollution.
- EXTREME TEMPERATURE AND HEALTH**
Deaths due to extreme temperatures.
- EXTREME TEMPERATURE AND LABOR**
Lost labor hours for weather-exposed workers.
- COASTAL FLOODING AND TRAFFIC**
Traffic delays from high-tide flooding.
- COASTAL FLOODING AND PROPERTY**
Property inundation due to sea level rise.
- INLAND FLOODING AND PROPERTY**
Property damage or loss due to inland flooding.

*Impacts not estimated for 65 and Older.

Figure 2. Diagram representing differences in risks to socially vulnerable groups with 2 degrees Celsius of warming or 50 cm of global sea-level rise. Source: U.S. EPA, CLIMATE CHANGE AND SOCIAL VULNERABILITY IN THE UNITED STATES, EPA 430-R-21-003 (Sept. 2021), p. 8.

2. What Issues Arise as a Result of Climate Migration?

As a result of the growing climate impacts, populations around the world are beginning to migrate.¹⁹ The Institute for Economics & Peace forecasts that more than one billion people face displacement by 2030 because of precarious ecological situations—a situation made more dire because of climate change’s magnifying effect.²⁰ Hurricanes, intensified by climate change, have propelled people from Central America north to the United States. Wildfires have forced hundreds of thousands of California residents to evacuate their homes, sometimes permanently. Rising sea levels may require Florida’s political leadership to anticipate massive inland migration. A cluster of factors, including thawing permafrost, erosion, flooding, and sea-level rise, threaten many Alaskan communities. Citizens of Isla de Jean Charles, Louisiana, have been displaced by rising seas; federal climate resilience grants are helping them with resettlement. Climate migration poses significant legal challenges related to bans on rebuilding, maintenance of existing infrastructure, property acquisition, required resettlement to predetermined locations, communitywide relocation, and cleanup responsibilities.

II. Establishing a Fundamental Right to a Safe Environment and a Stable Climate

In the context of all these changes, litigation involving human-rights and climate justice is on the rise. State court judges are seeing claims of a right to a safe environment and stable climate, or some variation of those rights, predicated on state environmental rights amendments (ERAs) contained in state constitutions. Several states have ERAs and more than a dozen others are currently considering their adoption. In a litigation context, ERAs may be paired with public trust and public nuisance theories, as demonstrated by Rhode Island’s complaint against 21 fossil fuel companies (explored further in Part III.B below).²¹ Judges in federal court may see similar claims based on substantive due process. This section briefly outlines the fundamental rights framework, then explains ERAs and how they work, with a focus on the specific language from the states that have adopted the amendments.

A. International Framework

According to the October 2021 UN Human Rights Council (UNHRC) study titled, “Environmental Justice, the Climate Crisis, and People of African Descent,” the world is currently

¹⁹ Shanna N. McClain et al., *Migration With Dignity: A Legal and Policy Framework*, 17 J. DISASTER RES. 292 (2022), <https://www.fujipress.jp/jdr/dr/dsstr001700030292/>.

²⁰ Institute for Economics & Peace, *Ecological Threat Report 2021* (2021), <https://www.visionofhumanity.org/wp-content/uploads/2021/10/ETR-2021-web.pdf>.

²¹ Barry E. Hill, *Environmental Rights, Public Trust, and Public Nuisance: Addressing Climate Injustices Through Climate Liability Litigation*, 50 ELR 11022 (Dec. 2020).

facing a climate crisis, environmental racism, pervasive toxic pollution, dramatic loss of biodiversity, and a surge in emerging infectious diseases of zoonotic origin, such as COVID-19.²² “These interlocking environmental crises have a negative impact on a wide range of human rights, including the rights to life, health, water, sanitation, food, decent work, development, education, peaceful assembly and cultural rights, as well as the right to live in a healthy environment.”²³ The UNGA resolution was one way to address these crises.²⁴

B. National Constitutions

The U.S. Constitution does not refer to the environment or contain an explicit provision that guarantees the right to a clean, safe, and healthful environment. However, a 2019 analysis of national constitutions conducted by the UN Environment Programme (UNEP) across the world found that 150 out of 193 countries’ constitutions had provisions related to the environment.²⁵

In the United States, federal courts have not recognized the right on a substantive due process basis, with one notable exception discussed below. Following a potential expansion of constitutional rights following *Griswold*, arguments that the Fifth, Ninth, and Fourteenth Amendments could be the basis of an implied constitutional right to environmental quality were dismissed based on lack of precedent or separations-of-powers concerns.²⁶

In 2018 however, in an order denying the federal government’s motion to dismiss in *Juliana v. United States*, District Court of Oregon Judge Ann Aiken found that in her “reasoned judgment,” there is “no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. Just as marriage is the ‘foundation of the family,’ a stable climate system is quite literally the foundation ‘of society, without which there would be neither civilization nor progress.’”²⁷ The case involved claims by Our Children’s Trust, on behalf of 21 youth plaintiffs, who contended a constitutional right to life, liberty, and property was violated by decades of actions

²² UN HUMAN RIGHTS COUNCIL, REPORT OF THE WORKING GROUP OF EXPERTS ON PEOPLE OF AFRICAN DESCENT, *Environmental Justice, the Climate Crisis and People of African Descent* (Sept. 2021), <https://www.ohchr.org/EN/Issues/Racism/WGAfricanDescent/Pages/EnvironmentalJustice.aspx>.

²³ *Id.*

²⁴ See *supra* note 1.

²⁵ UNEP, ENVIRONMENTAL RULE OF LAW: FIRST GLOBAL REPORT 156 (2019).

²⁶ See, e.g., *Ely v. Velde*, 451 F.2d 1130 (4th Cir. 1971); *Tanner v. Armco Steel*, 340 F. Supp. 532 (S.D. Tex. 1972).

²⁷ *Juliana v. United States*, No. 15-01517 (D. Or., Nov. 10, 2016). The case is ongoing. After two interventions by the U.S. Supreme Court, the Ninth Circuit, in a 2-1 decision, ruled plaintiffs lacked standing because a decision in their favor would not necessarily redress the injury. *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020). Plaintiffs continued to seek relief by amending their complaint in the District of Oregon. In response, Judge Aiken ordered a settlement conference and held a hearing on plaintiff’s motion. The case awaits decision on whether plaintiffs can file an amended complaint.

by the federal government that caused climate change through the promotion and consumption of fossil fuels. Judge Aiken’s opinion, however, stands as the exception in federal courts.

Outside the United States, of the 150 countries that have constitutional provisions related to a healthy environment, more than 80 of those explicitly recognize the substantive human right to live in a clean, safe, and healthful environment.²⁸ These types of provisions are typified by Portugal, which was the first country to provide constitutional environmental protections, in the mid-1970s, with an article stating that “[e]veryone has the right to a healthy and ecologically balanced environment and the duty to defend it.”²⁹ Beyond the explicit constitutional protections, judges have played a role in enshrining these rights, as “courts in at least 12 countries have interpreted a constitutional right to life to include a right to a healthy environment in which to live that life.”³⁰

C. State ERAs

Absent federal constitutional directives, U.S. states, building on work at the international level, have begun to guarantee the right to a healthy environment through “Environmental Constitutionalism” and ERAs. In addition, many state constitutions have provisions relating to the environment or natural resources, but most are not considered ERAs. Constitutional provisions unrelated to the environment have also been tested in cases involving rights to a clean environment or stable climate.

ERAs, sometimes called “Green Amendments,” secure a fundamental and inalienable right to a healthful environment (i.e., through clean air, pure water, clean land, etc.) for present and future generations. However, not all ERAs are created equal. Some declare a policy objective of a healthy environment, which are typically not regarded as full-fledged ERAs, while others guarantee enforceable substantive rights. These provisions may be inside or outside the state constitution’s bill of rights section (see Figure 3 below).

ERAs exist on a spectrum and any case that features an ERA requires a close examination of various elements, including but not limited to: Who holds the right? Who can enforce the right? What is the scope of the right? Is the provision self-executing? The most expansive and comprehensive ERAs are those that provide bill of rights protections for all individuals (including future generations), apply across all levels of state government, apply to all environmental media (e.g., air, water, land, climate),

²⁸ UNEP, *supra* note 25 at 156, n.95 (2019); James R. May, *The Case for Environmental Human Rights: Recognition, Implementation and Outcomes*, 42 CARDOZO L. REV. 983 (2021).

²⁹ Port. Const., Art. 66 (1976). *See also* Enviro Rights Map, <https://envirorightsmap.org>.

³⁰ UNEP, *supra* note 25 at 163.

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.³²

The ERA has been interpreted by Pennsylvania's highest court on several occasions. The amendment was mostly dormant until the state legislature revised the state's oil and gas laws in 2012 ("Act 13") in response to the fracking boom.³³ Fracking, an extractive process often used to help obtain natural gas, requires deep drilling and fluid injections to assist in fracturing rock to allow oil and natural gas to flow more freely. Fracking adversely impacts many aspects of the environment, including air and water quality.³⁴ Plaintiffs, including townships, individuals, and an environmental organization, filed suit claiming certain sections of Act 13 violated Pennsylvania's ERA and other constitutional provisions (for more on standing in the case, see Part IV.A below). The result was the influential 2013 *Robinson Township* case (see Box 3).

The court, in a plurality opinion, found Act 13 violated the state's ERA, specifically finding the legislature cannot remove the local bodies' authority to carry out their constitutional directives to act as trustee. Moreover, Act 13's requirement that local ordinances allow oil and gas development pursuant to uniform rules ran afoul of the ERA, because to allow industrial uses in this way is inconsistent with maintaining a healthy environment. The court in particular noted that this provision could lead to inequitable outcomes, since undoubtedly "some properties and communities

Box 3. Case Highlight: *Robinson Township v. Commonwealth of Pennsylvania* (2013)

In *Robinson Township*, the Pennsylvania Supreme Court elucidated the essential ERA principles that have since served as guideposts for courts and policymakers.

Interpreting based on the plain language of the provision, the court remarked that the ERA's first sentence provides two rights, one of the people to clean air, pure water, etc., and the other as a limit on the state acting against the right. The court analyzed the second and third sentences of the ERA, finding these create a trust relationship over these resources, for present and future generations. The state has two trustee duties in this regard—first, to not permit or encourage the degradation or depletion of natural resources, and second, to actively take steps to protect the environment through legislation.

³² Pa. Const., Art. 1, §27.

³³ Act 13 contained a series of measures that, among other things, required using a set of uniform rules and prohibited local governments from enacting fracking rules more stringent than those set by the state, limited review periods for drilling proposals, and mandated waivers of setback conditions on the applicant's guarantee. The setback conditions were designed to act as a buffer between fracking activity to minimize impacts to the surrounding area, and Pennsylvania's environmental agency was not provided any discretion to object to an applicant's say-so that they complied with the conditions.

³⁴ Qingmin Meng, *The Impacts of Fracking on the Environment: A Total Environmental Study Paradigm*, 580 SCI. TOTAL ENV'T 953 (2017).

will carry much heavier environmental and habitability burdens than others.”³⁵ Further, the court found that allowing only the permittee to appeal permit conditions contained in the mandatory setback measures created a situation that affected marginalized communities and residents.³⁶ The court’s opinion demonstrates that ERAs act as tools of environmental justice by helping to ensure environmental and climate benefits and burdens fall equally on all individuals and communities.

That decision continues to have influence. A majority of the Pennsylvania Supreme Court found that Section 27 was “on par” with other fundamental rights.³⁷ In 2021, the Pennsylvania Supreme Court, relying on *Robinson Township*, found changes to the tax code violated the ERA.³⁸ Stressing the importance of managing the trust, the court reiterated that the state may not use trust assets in a way that does not benefit the trust.

The presence of a robust ERA has had practical implications as well. In Franklin Forks, Pennsylvania, residents detected high levels of methane, a potent greenhouse gas, in water. The gas was escaping from nearby fracking operations run by WXE Energy, and it forced the residents of the rural, white, low-income community to purchase bottled water for drinking. The company, even before litigation was initiated, but undoubtedly aware of the ERA and legal precedent, ultimately provided water tanks to impacted residents. The decision to do so demonstrates that principles of environmental justice contained in the state’s ERA, and reinforced by the courts, can shape dynamics among private parties outside the courtroom.³⁹

2. How Is ERA Language Structured in Other States?

In addition to Pennsylvania, ERAs can be found in the state constitutions of Hawai’i, Illinois, Massachusetts, Montana, New York and Rhode Island. At least 14 additional states are considering proposals to adopt ERAs. Each ERA differs in scope and content.

Hawai’i’s Constitution outlines the trustee responsibilities of the state over environmental resources for current and future generations, but declares the right to a healthy environment is limited by relevant environmental laws:

³⁵ *Robinson Township*, 83 A.3d at 980.

³⁶ *Id.* at 984.

³⁷ John C. Dernbach et al., *Recognition of Environmental Rights for Pennsylvania Citizens*: Pennsylvania Environmental Defense Foundation v. Commonwealth of Pennsylvania, 70 RUTGERS U. L. REV. 803 (2018).

³⁸ Pa. Env’t Def. Found. v. Commonwealth of Pennsylvania, 64 MAP 2019 (Pa. July 21, 2021).

³⁹ Barry E. Hill, *Essay Twenty: Environmental Justice for All Must Be a Human Right Enforceable in U.S. State Constitutions*, in A BETTER PLANET: 40 BIG IDEAS FOR A SUSTAINABLE FUTURE 181-91 (Daniel C. Esty ed., 2019).

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.⁴⁰

Each person has the right to a clean and healthful environment, as defined by laws relating to environmental quality, including control of pollution and conservation, protection and enhancement of natural resources⁴¹

In June 2022, Hawaii's Supreme Court, in a case involving the approval of a power purchase agreement by the state's Public Utility Commission (PUC), found that the right to a "clean and healthful environment" described in the state constitution "subsumes a right to a life-sustaining climate system."⁴² The court explained that laws governing the PUC constitute "laws relating to environmental quality," and thus define the parameters of the right. Since the court likewise held that those laws created a trust responsibility over air resources, that responsibility is included within the right to a life-sustaining climate system.

Montana's Constitution singles out and elevates environmental rights, clearly declaring the right to a healthy environment inalienable. It contains active language that requires the state to take efforts beyond just maintaining the environment:

All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment⁴³

The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations⁴⁴

These sections have been described by Montana's highest court as "intended by the "constitution's framers to be interrelated and interdependent."⁴⁵ Recently, in *Held v. Montana*, plaintiffs relied on these provisions to challenge the "Climate Change Exception" to the State Energy Policy and

⁴⁰ Haw. Const. Art. XI, §1. Section 7 further provides that "The State has an obligation to protect, control, and regulate the use of Hawaii's water resources for the benefit of its people."

⁴¹ *Id.* §9.

⁴² In the Matter of the Application of Maui Electric Co., Ltd., SCOT-21-0000041 n.15 (Sup. Ct. Haw. Mar. 2, 2022).

⁴³ Mont. Const., Art. II, §3.

⁴⁴ *Id.* Art. IX, §1.

⁴⁵ Mont. Env't Info. Ctr. v. Dep't of Env't Quality, 988 P.2d 1236, 1246 (Mont. 1999) (finding exemption in state environmental law that led to arsenic level buildup in water violated Montana's ERA).

Montana Environmental Policy Act.⁴⁶ The exception prevented any environmental analysis of “actual or potential impacts that are regional, national, or global in nature,” essentially foreclosing any analysis of climate impacts. In denying defendant’s motion to dismiss, the trial court found plaintiffs’ right to a clean environment provided in the ERA was sufficient grounds for their claims that the state was responsible for climate-related harms that violated that right to move forward.⁴⁷ The case is set for trial in 2023.

Rhode Island’s ERA, in the Declaration of Certain Rights and Principles section, is included with the freedom of religion, right to jury trial, and so on, and guarantees that its people:

shall be secure in their rights to the use and enjoyment of the natural resources of the state with regard for the preservation of their values; and it shall be the duty of the general assembly to provide for the conservation of the air, land, water, plant, animal, mineral, and other natural resources, and to adopt all means necessary and proper by law to protect the natural environment of the people⁴⁸

In **Illinois**, the ERA is stated in terms of a policy preference and a declaratory right, but is clearly not self-executing. It does, however, provide that any person can enforce the right:

The public policy of the State and the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations. The General Assembly shall provide by law for the implementation and enforcement of this public policy.⁴⁹

Each person has the right to a healthful environment. Each person may enforce this right against any party, governmental or private, through appropriate legal proceedings⁵⁰

Massachusetts’ ERA mirrors that of Illinois, but additionally identifies discrete aspects of environmental resources, such as minerals, forests, and waters, and describes specific elements that comprise those resources to which people have a right, including scenic, historic, and esthetic interests:

The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their

⁴⁶ Plaintiffs also sought a declaration that the Montana Constitution provide a right to a stable climate system and injunctive relief to have Montana prepare and implement a plan for the reduction of greenhouse gases (GHGs).

⁴⁷ *Held v. State of Montana*, No. CDV-2020-307 (Mont. Aug. 4, 2021).

⁴⁸ R.I. Const., Art. I, §17.

⁴⁹ Ill. Const., Art. XI, §1.

⁵⁰ *Id.* §2. This provision was applied relatively narrowly in *Glisson v. City of Marion*, 720 N.E.2d 1023 (Ill. 1999), which held that the provision does not include biodiversity conservation, only protection against pollution.

environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose. The general court [Massachusetts' legislative body] shall have the power to enact legislation necessary or expedient to protect such rights.⁵¹

The **New York** Constitution's ERA was overwhelmingly approved by voters in a statewide referendum and became effective January 2022. The provision, contained in the bill of rights section, is perhaps the most simply stated example of an ERA:

Each person shall have a right to clean air and water, and to a healthful environment.⁵²

These examples reveal the breadth and depth of state ERAs. As more states adopt ERAs, there will undoubtedly continue to be variety in their language and coverage. While the contours will vary, these provisions will be more frequently used in environmental and climate justice cases. Accordingly, judges should be aware of their content and how they interact with other constitutional provisions, legal theories, and relevant statutes and regulations.

III. Fundamental Rights and Climate: Other Legal Approaches

Cases involving fundamental rights in the climate context do not rely exclusively on ERAs in part because only a handful of states currently have them. Instead, plaintiffs rely on public trust principles, public nuisance law, and environmental and climate justice laws (see Box 4).⁵³

A. Public Trust Doctrine

Long-standing public trust principles, whether rooted in state constitutions or common law, are commonly invoked in fundamental rights-related climate claims. Judges are likely to continue to see these arguments raised in the coming years.

⁵¹ Mass. Const., Part of the First, Art. XCVII.

⁵² N.Y. Const., Art. I, §19.

⁵³ For more information on climate change cases, see the U.S. Climate Change Litigation database, <http://climatecasechart.com/climate-change-litigation/>. The database is updated regularly.

1. What Is the Origin of the Doctrine and How Does It Involve Fundamental Rights?

The public trust doctrine can be traced to Roman law and was adopted in the United States as part of English common law. The doctrine is based on the concept that navigable riverbeds were held in trust for the public to support navigation, fishing, recreation, and associated uses. Some states and courts have expanded this concept beyond the navigable waters context (see below). Holding these resources in trust requires the sovereign to effectively manage them to ensure present and future generations can enjoy them. Because climate

change has multiple impacts on water resources and people's ability (and fundamental right) to use and enjoy them, how states respond to these impacts can implicate their trust responsibilities.

Box 4. Snapshot: Legal Approaches

Environmental Rights Amendments: check out language from state constitutions in Hawai'i, Illinois, Massachusetts, Montana, New York, Pennsylvania, and Rhode Island.

Public Trust: comes in two flavors, procedural and substantive. Hawai'i's *Waiāhole* ruling includes extensive discussion of the concept, as applied to water resources.

Public Nuisance: state tort claims that are often brought in conjunction with ERA and public trust rights-based claims.

Environmental Justice: existing federal laws and guidance documents, and state laws. States with environmental justice laws include California, New Jersey, New York, and Washington.

Climate Justice: state laws that build on existing environmental justice frameworks. Recently, New York and Washington have enacted legislation.

2. What Major Judicial Decisions Have Shaped the Public Trust Doctrine?

Many interpretations of the public trust are traced to the U.S. Supreme Court's 1892 *Illinois Central Railroad Co. v. Illinois* decision.⁵⁴ Two prominent, if somewhat differing interpretations of the decision have emerged, one that constrains the public trust to a procedural requirement, and another that includes a substantive component. The first interpretation regards the public trust as procedural; the role of a reviewing court is to determine whether decisions regarding public resource allocations considered all alternatives.⁵⁵ The second interpretation finds that the doctrine is more than procedural and has a value system that designates ecosystem stability a top priority. How the doctrine is interpreted in climate cases will impact the way fundamental rights claims are handled.

The Mono Lake Case is a seminal example of public trust analysis in the environmental context, and one with potential climate implications. The case involved diversions of water by Los Angeles' Department of Water and Power that lowered lake levels, thereby increasing salinity and threatening the ecosystem by harming brine shrimp and the birds that feed on them. Relying on the public trust, the California Supreme Court held that the public trust "prevents any party from acquiring a vested right to appropriate water in a manner harmful to the interest protected by the public trust."⁵⁶ In

⁵⁴ 146 U.S. 387 (1892).

⁵⁵ Joseph Sax, *The Public Trust Doctrine in Natural Resources Law: Judicial Intervention*, 68 MICH. L. REV. 471 (1970).

⁵⁶ Nat'l Audubon Soc'y v. Superior Court of Alpine Cty., 33 Cal. 3d 419, 445 (Sup. Ct. of Cal., 1983).

other words, actions that harmed the lake’s ecosystem stability violated the public trust. As climate impacts such as drought continue to impact water supplies, the interpretation of the scope and substance of the trust will effect decisions about resource allocations.

The Hawai’i Supreme Court’s landmark *Waiāhole* ruling provides extensive explanation of the scope and substance of the trust.⁵⁷ It held that Hawai’i’s Constitution adopted public trust principles as they applied to all water resources, beyond the traditional navigable waters. In reaching this conclusion, the Native Hawaiian concept of the public trust and value of water to ancient Hawaiians was significant. In carrying out these trust responsibilities, the state has a duty to ensure the rights to the state’s water resources are not impaired for current and future generations. Courts will inevitably play a role in adjudicating disputes about whether such resources were adequately managed given a dynamic climate.

3. How Is the Public Trust Doctrine Shifting and What Are Recent Climate Cases Suggesting About Its Trajectory?

A few state courts and federal courts in one line of cases have issued decisions in cases related to claims the government violated its trust obligations as they relate to a stable climate. If, however, courts interpret the public trust doctrine to include air resources,⁵⁸ additional trust obligations to address climate harms may follow.

In *Reynolds v. Florida*, the Florida Appellate Court in 2021 affirmed the lower court’s dismissal on political question grounds of claims that the state of Florida and the Florida governor showed “deliberate indifference to the fundamental rights to a stable climate system” in violation of the state constitution.⁵⁹ In Alaska, a case brought by young Alaska Natives and Alaskans against the state of Alaska, governor, and five state agencies, alleged state actions that authorized fossil fuel development caused climate harms that violated their public trust rights.⁶⁰ In a 3-2 decision, that case was similarly dismissed on political question grounds.⁶¹ Washington’s Court of Appeals, while appreciative of the fact that the plaintiffs “deserve a stable environment,” rejected the opportunity to adopt an expansive view of the public trust that incorporates air resources and concluded that a decision would violate the separation of powers.⁶²

⁵⁷ In the Matter of the Water Use Permit Applications, Petitions for Interim Instream Flow Standard Amendments, and Petitions for Water Reservations for the Waiāhole Ditch Combined Contested Case Hearing, 94 Haw. 97, 9 P.3d 409 (Haw. 2000).

⁵⁸ Oregon has declined to do so. *Cherniak v. Brown*, 367 Or. 143, 475 P.3d 68 (Or. 2020).

⁵⁹ *Reynolds v. State of Florida*, No. 1D20-2036 (Fla. May 18, 2021).

⁶⁰ *Sinnok v. State of Alaska*, No. 3AN-17-09910 (Alaska 2018).

⁶¹ See *Sagoonick v. State*, ___ P.3d ___, 2022 WL 262268 (Alaska 2022).

⁶² *Aji P. v. State of Washington*, No. 80007-8-I (Wash. Ct. App. Feb. 8, 2021), *cert. denied*, No. 99564-8 (Sup. Ct. Wash. Oct. 6, 2021).

In federal court, the *Juliana* case offers further insights into how the federal government’s trust obligations may be interpreted. Judge Aiken’s November 2016 opinion dismissing defendants’ motion to dismiss recognized that the federal government has a public trust obligation, that it was not displaced by federal environmental statutes because the public trust is inherent in sovereignty and Congress cannot legislate it away, and that the public trust cause of action was accurately categorized as a Fifth Amendment substantive due process claim.⁶³

B. Public Nuisance Claims

Climate cases that involve ERAs and/or public trust claims, may also involve state tort law claims such as public nuisance. While not necessarily asserted to protect or enforce fundamental rights, a brief discussion of public nuisance is included here because judges often encounter these theories intertwined in climate cases. The well-crafted complaint filed by Rhode Island’s Attorney General against more than 20 fossil fuel companies, based on the state’s ERA, public trust, and public nuisance, is instructive.⁶⁴

Public nuisances are harms to the community, and climate impacts often fall on an entire community. States, cities, and counties around the country have increasingly sought relief in state courts on these claims. Most of these cases have shuffled between state and federal court and continue to do so. Following the Supreme Court’s decision in *BP v. Baltimore*,⁶⁵ some of these cases have been remanded to state court where they were initially filed.⁶⁶ That includes the Baltimore case,⁶⁷ as well as others in U.S. Courts of Appeals for the First, Ninth, and Tenth Circuits, which are

Box 5. Judicial Pronouncements: Public Nuisance and State Court Jurisdiction

“Climate change is an important problem with national and global implications. But federal courts cannot hear cases just because they are important. The Constitution restricts us to resolving claims that are about federal law or that Congress has expressly authorized us to hear. These claims check neither box. So we cannot hear them.” *City of Hoboken v. Chevron Corp.*, No. 21-2728, 36 (3d Cir. Aug. 17, 2022).

“This is an unprecedented case for any court, let alone a state court trial judge. But it is still a tort case. It is based exclusively on state law causes of action. . . . Here, the causes of action may seem new, but in fact are common. They just seem new—due to the unprecedented allegations involving causes and effects of fossil fuels and climate change. Common law historically tries to adapt to such new circumstances.” *City & Cty. of Honolulu & BWS v. Sunoco, LP*, No. 1CCV-20-0000380, 2, 7 (Haw. 1st Cir. Ct. Feb. 22, 2022).

⁶³ *Juliana*, *supra* note 27.

⁶⁴ Barry E. Hill, *Environmental Rights, Public Trust, and Public Nuisance: Addressing Climate Injustices Through Climate Liability Litigation*, 50 ELR 11022 (Dec. 2020). The case is pending in state court after the U.S. Court of Appeals for the First Circuit affirmed an order of the district court remanding the case to state court.

⁶⁵ *BP P.L.C. v. Mayor and City Council of Baltimore*, No. 19-1189, 539 U.S. __ (2021).

⁶⁶ *See, e.g.*, *State of Delaware v. BP America Inc.*, No. 29-1429-LPS (D. Del. Jan. 5, 2022); *Bd. of Cty. Comm’rs of Boulder Cty. v. Suncor Energy*, No. 19-1330 (10th Cir. Feb. 8, 2022).

⁶⁷ *Mayor & City Council of Baltimore v. BP P.L.C.*, No. 19-16444 (4th Cir. Apr. 7, 2022).

now all back before state courts where they were originally filed.⁶⁸ Federal courts and one state court have been in agreement that these cases properly belong in state courts (see Box 5).

Rhode Island’s public nuisance argument followed a path similar to that employed in a 2019 Oklahoma opioid case. In Oklahoma, the trial court judge found Johnson & Johnson liable for \$465 million in damages for interfering with public health by engaging in “false, misleading, and dangerous marketing campaigns” that caused higher and higher rates of addiction and deaths.⁶⁹ A climate analog is readily apparent. In Rhode Island’s complaint, the Attorney General—whose role in bringing public nuisance claims has been emphasized by Rhode Island courts—documents climate impacts to the community, including increased sea-level rise, drought, extreme heat, and extreme precipitation events. It goes on to allege defendants were in the best position to avoid these impacts, and despite their knowledge of the impacts “fail[ed] to take any other precautionary measures to prevent or mitigate those known harms.”⁷⁰ While the outcome of Rhode Island’s claim remains unresolved, the case has been remanded to state court where it will be tried before a state judge. The framework employed by Rhode Island’s Attorney General, alleging violations of the state’s ERA, the public trust doctrine, and public nuisance laws, remain a relevant structure to understand.

C. Environmental Justice Laws

The implementation and enforcement of environmental justice laws is another mechanism to address climate harms to individuals’ rights. In this regard, states have been at the forefront of enacting environmental justice laws. California, New Jersey (see Box 6), and New York laws, detailed below, provide examples of the procedural and substantive requirements of these efforts.

1. Is There a Federal Environmental Justice Statute?

There is no federal environmental justice statute, although legislation has been repeatedly proposed.⁷¹ As mentioned in Part I.A.1 above, however, existing environmental laws are structured to accomplish many environmental justice goals. Absent congressional action, national efforts have come out of the executive branch, including through Executive Order (EO) 12898, issued by President Bill Clinton in 1992 to integrate environmental justice into federal decisionmaking.⁷² President Joe Biden updated this in 2021 with EO 14008.⁷³ In response to EO 14008, the White

⁶⁸ *Cty. of San Mateo v. Chevron Corp.*, No. 18-15499 (9th Cir. Apr. 19, 2022); *Bd. of Cty. Comm’rs of Boulder Cty. v. Suncor Energy*, No. 19-1330 (10th Cir. Feb. 8, 2022); *Rhode Island v. Shell*, No. 19-1818 (1st Cir. May 23, 2022).

⁶⁹ *See State ex rel. Hunter v. Purdue Pharma, L.P.*, No. CJ-2017-816 (Okla. Dist. Ct. Aug. 26, 2019).

⁷⁰ *Complaint, State v. Chevron Corp.*, No. PC-2018-4716, para. 230 (R.I. Super. Ct. filed July 2, 2018).

⁷¹ Hill, *Sacrifice Zones*, *supra* note 18 at 27, 28.

⁷² Exec. Order No. 12,898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (Feb. 11, 1994).

⁷³ Exec. Order No. 14,008, *Tackling the Climate Crisis at Home and Abroad* (Jan. 27, 2021).

House Environmental Justice Advisory Council (WHEJAC) issued interim guidelines that address: the Justice40 Initiative, a plan to direct 40% of regulatory benefits to disadvantaged communities; a screening tool to identify and map climate and economic justice⁷⁴; and revisions to the 1992 EO.⁷⁵ States may play a significant role in implementing Justice40, as evidenced by the Delaware Legislature’s creation of an oversight committee that is locating and helping communities so they can benefit from government grants and programs.⁷⁶

2. Which States Have Environmental Justice Laws and What Do They Look Like?

A few states have enacted legislation with explicit environmental justice goals, and more can be expected to do so in the coming years. Laws that address environmental inequities but do not define environmental justice or make it a centerpiece of the law are not covered here.

New York’s environmental justice statute updates its environmental conservation law by adding an article that sets out policies and establishes councils to carry out those policies.⁷⁷ In doing so, it codified “fair treatment and meaningful involvement,” the language from EPA’s environmental justice definition. The law works in concert with New York’s climate law (see *infra* notes 100-01 and accompanying text), and because the environmental justice provisions are binding, cases related to subsequent policies are inevitable. New York’s environmental justice law declares the following official state policy:

all people, regardless of race, color, religion, national origin or income, have a right to fair treatment and meaningful involvement in the development, implementation and enforcement of laws, regulations and policies that affect the quality of the environment.

no group of people, including a racial, ethnic or socioeconomic group of people, should be disproportionately exposed to pollution or bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, or commercial operations, or the execution of federal, state, local, and tribal programs and policies.

no group of people, including a racial, ethnic or socioeconomic group, should suffer from inequitable allocation of public resources or financial assistance for environmental protection

⁷⁴ COUNCIL ON ENV’T QUALITY, *Climate and Economic Justice Screening Tool* (last updated May 4, 2022), <https://screeningtool.geoplatform.gov/en/#3/33.471-97.5>.

⁷⁵ White House Env’t Justice Advisory Council, *Final Recommendations: Justice40, Climate and Economic Justice Screening Tool and Executive Order 12898 Revisions* (May 21, 2021), <https://www.epa.gov/environmentaljustice/white-house-environmental-justice-advisory-council-final-recommendations>.

⁷⁶ HCR 40 (2021), <https://legis.delaware.gov/TaskForceDetail?taskForceId=441>.

⁷⁷ N.Y. CODE §48.

Box 6. Law Highlight: New Jersey’s Environmental Justice Law

New Jersey’s environmental justice law focuses on the impacts of permitting. The law imposes requirements for applicants seeking permits for facilities located in “burdened communities,” defined economically as those areas in the bottom third of census tracts in median household income. N.J., S-232(1).

Before a permit can be granted, the applicant must assess the environmental impacts of the facility, including cumulative impacts, and provide a report to the public in advance of a public hearing that gives the burdened community a meaningful chance to participate. N.J., S-232(3)(a)(1)-(3).

The law has had consequences. In early 2022, the governor cancelled a vote by a sewage commission that would have awarded a contract for a large backup power project on the grounds the facility would violate the state’s environmental justice law. The example demonstrates the potentially complex interaction between environmental justice laws and other laws and political priorities.

Wayne Parry, *Resiliency Collides With Environmental Justice in Power Plan*, ASSOC. PRESS (Jan. 12, 2022).

and stewardship, including environmental remediation, pollution prevention, open space acquisition and/or other protection and stewardship activities.⁷⁸

In addition to these policy pronouncements, the law creates a permanent environmental justice advisory group, housed within the Department of Environmental Conservation, and an interagency coordinating council. The Advisory Group is charged with creating a model environmental justice policy applicable to state agencies whose activities impact the environment, whether through regulations, permitting, property acquisition or maintenance, or by approving, funding, or undertaking projects. Once implemented, the Group will provide recommendations to the governor, legislature, and state agencies on ways to

improve the model policy. It will also comment on any relevant proposed environmental justice rule, regulation, or policy, all while holding public hearings about its work.⁷⁹

The New York law also directs state agencies to create their own environmental justice policies. The law gives agencies two years from the adoption of a model environmental justice policy to establish their agency-specific policies and sets out two substantive requirements of the policies. First, each agency must appoint an environmental justice coordinator who will communicate with the public and the Advisory Group. Second, the agency must have an environmental justice training plan, with “workshops and written materials,” that explains what the agency’s policy is and how to implement it.⁸⁰

In Washington, the Healthy Environment for All Act, or HEAL Act, has similar contours to the New York law. Its focus is on alleviating harm through environmental justice assessments. The Act starts with the “fair treatment and meaningful involvement” definition, but adds that it includes

⁷⁸ *Id.* §48-0101.

⁷⁹ *Id.* §48-0107.

⁸⁰ *Id.* §48-0109(2).

addressing disproportionate impacts “in all laws, rules, and policies.”⁸¹ Environmental justice further means prioritizing the elimination of harm in overburdened and vulnerable populations, along with ensuring resources and benefits are equitably distributed.⁸² The law specifically defines “vulnerable populations,” which includes racial or ethnic minorities, low-income populations, and those impacted disproportionately by environmental harms or those exposed to environmental harms in the workplace.⁸³ “Overburdened community” is defined by geography, and is characterized by populations with multiple, combined impacts.⁸⁴

Beyond creating a council,⁸⁵ the HEAL law requires state agencies to include environmental justice implementation plans within their overall strategic plans.⁸⁶ The plans must explain what the agency can do to apply environmental justice principles to their work,⁸⁷ have metrics for measuring whether or not they are meeting their goals and obligations,⁸⁸ methods for engaging with the community,⁸⁹ and a timeline for incorporating all these considerations.⁹⁰

The agencies must also conduct environmental justice assessments for all “significant agency actions,” starting in 2023.⁹¹ Beyond the assessment, the agencies have a substantive obligation to reduce environmental burdens while maximizing the benefits to vulnerable populations and overburdened communities.⁹² An inability to avoid or reduce harms must be accompanied by a clear explanation.⁹³ The agencies’ duty to implement these strategies to reduce burdens while maximizing benefits to vulnerable populations separates the HEAL Act from purely procedural statutes like NEPA.

In California, no single law comprises the state’s approach to environmental justice, rather a series of laws and measures work in coordination. State law sets out a clear definition of environmental justice—“the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”⁹⁴ According to a memo from the Office of the California Attorney General, fairness means

⁸¹ Wash. RCW 70A.02.010(8).

⁸² *Id.*

⁸³ *Id.* 70A.02.010(14).

⁸⁴ *Id.* 70A.02.010(11).

⁸⁵ *Id.* 70A.02.110.

⁸⁶ *Id.* 70A.02.040(1).

⁸⁷ Wash. RCW 70A.02.040(2)(a).

⁸⁸ *Id.* 70A.02.040(2)(b).

⁸⁹ *Id.* 70A.02.040(2)(c), 70A.02.050.

⁹⁰ *Id.* 70A.02.040(2)(f).

⁹¹ *Id.* 70A.02.060(1)(a).

⁹² *Id.* 70A.02.060(6).

⁹³ Wash. RCW 70A.02.060(7).

⁹⁴ CAL. CODE §65040.12, subd. (e).

that the benefits are evenly distributed and burdens are not focused on already burdened or sensitive communities.⁹⁵ The California Environmental Quality Act (CEQA), passed in 1970, does not explicitly refer to environmental justice, but requires an examination of how a project might impact communities by looking at the siting and cumulative impacts of a project. Subsequent laws include efforts to channel funds to minority and low-income communities, air quality programs in those communities, and the integration of environmental justice considerations into local planning efforts. In addition, the Bureau of Environmental Justice within the Office of the Attorney General was established in 2018 and includes nearly a dozen attorneys focused on issues facing overburdened and under-resourced frontline communities. These attorneys focus on, among other things, compliance with CEQA and other land use laws; illegal discharges; toxics exposure; and drinking water contamination.

3. What Does the Future of Environmental Justice Policy Look Like?

The situation in Virginia may provide a window into how environmental justice issues may take place, with interaction between courts, legislatures, and administrative agencies. Much of it has played out in developments that surround the planning, permitting, and construction of natural gas pipelines and associated infrastructure. In 2019, Virginia’s Air Pollution Control Board awarded a permit for the construction of a compressor station used for the since-canceled Atlantic Coast pipeline. The Board’s decision was appealed to the U.S. Court of Appeals for the Fourth Circuit, where the court, noting that “environmental justice is not merely a box to be checked,” found the Air Pollution Control Board violated a Virginia law that required the Board to consider the “character and degree of injury to . . . health,” and “suitability of the activity to the area” when, among other things, it “failed to make any findings regarding the character of the local population at Union Hill, in the face of conflicting evidence.”⁹⁶ Ultimately, the court stated that the “Board failed to provide *any explanation* regarding the environmental justice issue, which makes its extensions of public comments and additional meetings ring hollow.”⁹⁷ The court vacated the permit and remanded it back to the Board to make the necessary findings (i.e., what is the local character and degree of injury from particulate matter and toxics from the proposed facility).

The decision has catalyzed further state action. For example, the Virginia Legislature in 2020 passed the Virginia Environmental Justice Act that codifies definitions of terms such as environmental justice, fair treatment, meaningful involvement, and environmental justice community.⁹⁸ It also

⁹⁵ STATE OF CALIF. DEP’T OF JUSTICE, *Environmental Justice at the Local and Regional Level Legal Background*, 1 (last updated July 10, 2012), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf.

⁹⁶ *Friends of Buckingham v. State Air Pollution Control Board*, 947 F.3d 68, 86 (4th Cir. 2020).

⁹⁷ *Id.* at 89.

⁹⁸ Virginia Environmental Justice Act, approved Apr. 22, 2020. Available at <https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+SB406>.

declares a policy of promoting environmental justice throughout the Commonwealth. Since then, additional legislative and regulatory measures have been proposed that would incorporate elements from *Friends of Buckingham* and build on the 2020 environmental justice law. Additionally, these factors supported a 6-1 decision by the Air Pollution Control Board that denied an air quality permit for a compressor station associated with the Mountain Valley pipeline.⁹⁹ That decision was based on findings that communities would be impacted, fair treatment requirements contained in the law were not met, and the compressor station site was not suitable.

D. Climate Justice Laws

Climate justice legislation is in an incipient phase, but as more states adopt climate and environmental justice laws, these two concepts will become increasingly intertwined and will be analyzed in coordination with each other.

For example, New York’s environmental justice law (discussed above) and Climate Leadership & Community Protection Act (CLCPA) work together. While the law sets out general policies and definitions, the CLCPA applies the concepts in a climate setting by setting targets of net-zero emissions by 2050 (for more on decarbonization strategies and technologies, see Solutions Module) and transitioning to fully renewable electricity by 2040, directing at least 35% (with a goal of 40%) to disadvantaged communities, and creating a Climate Justice Working Group. Investing in these communities includes “spending on clean energy and energy efficiency programs, projects or investments in the areas of housing, workforce development, pollution reduction, low income energy assistance, energy, transportation and economic development.”¹⁰⁰ The Climate Justice Working Group, with members from communities and state agencies, is charged with developing criteria that will identify communities for emissions reductions and benefits allocations and inform a larger scoping plan.¹⁰¹ Once the scoping plan and emissions targets are made binding, lawsuits in state court may follow that argue the state is failing to act on its commitments or is not meeting its obligations.

Washington’s Climate Commitment Act, or CCA, build on its environmental justice law, the Healthy Environment for All Act. Passed in 2021, the CCA is primarily designed to create a pathway for the state to reduce greenhouse gas emissions.¹⁰² It makes vulnerable and overburdened communities a focus of those reductions. Specifically, the CCA requires the Department of Ecology to identify overburdened communities and create an air monitoring network that will help to

⁹⁹ State Air Pollution Control Board Decision Minor New Source Review Permit for Mountain Valley Pipeline, LLC Lambert Compressor Station (MVP), Registration No. 21652 (Dec. 3, 2021), <https://www.deq.virginia.gov/home/showpublisheddocument/12757/637741469779416054>.

¹⁰⁰ N.Y. CODE §75-0117.

¹⁰¹ *Id.* §75-0111. The progress of the Working Group can be found at N.Y. State, *Climate Justice Working Group* (last visited Dec. 28, 2021), <https://climate.ny.gov/Climate-Justice-Working-Group>.

¹⁰² *See* Wash. S.B. 5126, §§3, 4 (2021).

determine which sources are responsible for the highest emission levels. The information will undergo a review every two years starting in 2023 to see whether pollutant and emissions reductions are being achieved. Air agencies are then directed not only to achieve air quality targets, but to then adopt stricter standards, which are supported through enforceable orders. Beyond these air emissions improvements, the CCA calls for the investments from various climate funds to result in at least 35% of benefits going to vulnerable populations and overburdened communities. In these ways, the CCA integrates environmental justice considerations into climate planning. Decisions made pursuant to these plans, are likely to be critical to climate justice and environmental justice arguments made in state and federal courts.

IV. Additional Legal Issues in Climate Change Litigation Implicating Fundamental Rights

Beyond the topics covered above, cases involving climate and fundamental rights raise additional issues such as justiciability and remedies. The most common justiciability questions include standing, political question, and separation of powers. In terms of remedies, judges can expect to see requests for both monetary damages and equitable remedies such as injunctions and declaratory judgments, depending on the particular facts of the case.

A. Justiciability

In the United States, standing has been a principal issue in climate litigation because plaintiffs must show they have suffered a concrete and particularized injury, caused by the defendant, that the court is capable of redressing. As climate impacts become more discernible, the focus will continue to be on the causation and redressability prongs of the standing analysis. Standing requirements in state courts, and in jurisdictions outside the United States may be more or less expansive, but the issue has likewise been central to some climate lawsuits.

While standing has been litigated often in climate cases, it has so far failed to prove a significant bar for governmental plaintiffs in state or federal court. In state court, the *Robinson Township* case held several types of plaintiffs had standing to challenge Act 13, including seven local governments, two individuals, the Delaware Riverkeeper Network and its executive director, Maya van Rossum, and a physician with patients near the planned drilling operations. However, not all plaintiffs have met the standard, as demonstrated by *Juliana*. There, while the trial court found the 21 youth-plaintiffs had standing, a divided Ninth Circuit panel found plaintiffs could not meet the redressability requirement because a decision in the plaintiff's favor would not remedy the harm.¹⁰³

¹⁰³ *Juliana v. United States*, No. 18-36082 (Jan. 17, 2020).

The political question doctrine has also played a role in the justiciability of climate cases. Some district courts and state courts have ruled that climate-related claims present non-justiciable political questions,¹⁰⁴ particularly when plaintiffs are seeking a remedy that involves promulgation of a scheme for emissions reductions. Separation-of-powers principles can present another barrier to climate litigation and have been raised in climate litigation in the United States and some international cases.

B. Remedies

A wide range of remedies is sought across cases involving fundamental rights and climate. The topic is covered in depth in the Remedies Module. Monetary damages often figure prominently in suits brought by governments against fossil fuel companies, while injunctive relief is more commonly sought in challenges against governments. Because many of the landmark climate cases have yet to reach the merits in the United States, the most-granted types of remedies are still uncertain. Looking to the international context, where courts have ordered private companies and governments to develop plans to reduce emissions, may provide some window into future U.S. scenarios.

Plaintiffs in the United States have sought declaratory judgments of certain constitutional rights or that those rights were being violated.¹⁰⁵ Others seek forms of injunctive relief—for example, a court order to direct a government to prepare some form of mitigation plan to reduce emissions. Similar requests made to state agencies have likewise failed, as demonstrated by an environmental group’s request that the Texas Council on Environmental Quality promulgate rules to reduce emissions.¹⁰⁶ One group, the Alaska Institute for Justice, filed a claim on behalf of five Native American Tribes with several United Nations Special Rapporteurs for harms caused by interests and activities occurring in the United States. The requested relief consisted of a series of recommendations for the federal government, Alaska, and Louisiana, and included, among other things, allocating funds to help with climate-related adaptation efforts such as migration.¹⁰⁷

Outside the United States, a couple of high-profile cases reveal the extent of potential remedies in these types of cases. In *Urgenda Foundation v. State of the Netherlands*, the Urgenda Foundation, a Dutch group focused on achieving a sustainable society, brought suit on behalf of more than 850

¹⁰⁴ See, e.g., *Held v. State of Montana*, No. CDV-2020-307 7, 19 (Mont. Aug. 4, 2021) (finding request to order executive or legislative branch to create a remedial plan is a political question and thus nonjusticiable); *Reynolds*, *supra* note 59 and accompanying text; *Sagoonick*, *supra* note 61 and accompanying text.

¹⁰⁵ See, e.g., Complaint, *Held v. Montana*, No. CDV-2020-307 (Mar. 13, 2020) (seeking declaration of constitutional rights); Pl. Mot. for Leave to Amend & File Second Amended Comp. for Declaratory & Injunctive Relief, *Juliana v. United States*, No. 15-01517 (Mar. 9, 2021).

¹⁰⁶ See *Tex. Comm’n on Env’t Quality v. Bonser-Lain*, No. 03-12-00555 (Tex. Ct. App. July 23, 2014) (reversing trial court ruling and finding the suit lacked subject matter jurisdiction since no law waived sovereign immunity in cases of rulemaking petition denials).

¹⁰⁷ Rights of Indigenous People in Addressing Climate-Forced Displacement (Jan. 15, 2020), <https://s3.documentcloud.org/documents/6656724/Louisiana-Tribes-Complaint-to-UN.pdf>.

individuals seeking national emissions reductions. The Netherlands’ highest court held the European Convention on Human Rights, as adopted by Dutch law, imposes obligations on the government to reduce emissions and limit warming.¹⁰⁸ In 2021, the Hague District Court ruled against Royal Dutch Shell, ordering the company to reduce emissions 45% by 2030, compared with 2019 levels.¹⁰⁹ Significantly, the Dutch court was the first to extend responsibility to scope 3 emissions. Scope 3 emissions include indirect emissions from downstream use, meaning Shell is responsible for emissions reductions in supplies and consumers as well.

Conclusion

Recent studies, such as the August 2022 First Street Foundation report,¹¹⁰

underscore that minority communities across the United States are projected to experience disproportionate adverse outcomes from extreme heat. The bar chart in Figure 4 represents how climate change will affect neighborhood temperatures in 2023 and 2053 by representing the projected average number of days with a heat index above 100 °F. The residents of those minority and/or low-income, and Indigenous communities are nonetheless entitled to the fundamental right

Extreme heat will be worst in communities of color

Data from the First Street Foundation shows that ZIP codes with large non-white populations suffer the most from extreme heat

Average number of days in 2023 when heat index exceeds 100 Average number of days in 2053 when heat index is estimated to exceed 100

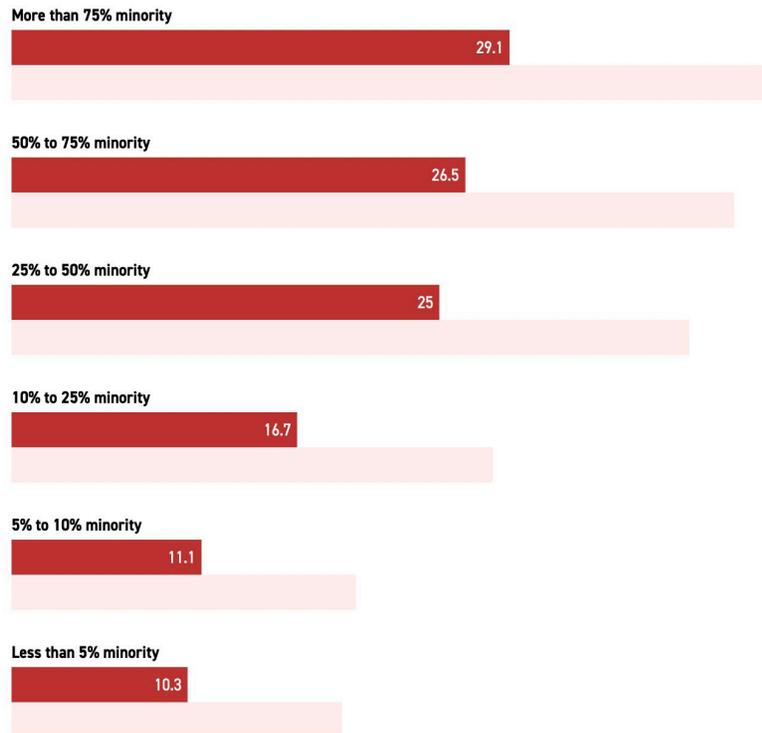


Figure 4. Bar chart representing how extreme heat will adversely impact communities of color. Source: Thomas Frank, *Rise in extreme heat will hit minority communities hardest*, E&E News (Aug. 15, 2022) (based on data from First Street Foundation report).

¹⁰⁸ Hof’s-Gravenhage 09 Oktober 2018, Case No. 200.178.245/01 (Urgenda Foundation/State of the Netherlands) (Neth.) (concluding “the State has done too little to prevent a dangerous climate change and is doing too little to catch up”); *State of the Netherlands v. Urgenda Foundation*, 132 HARV. L. REV. 2090 (May 10, 2019), <https://harvardlawreview.org/2019/05/state-of-the-netherlands-v-urgenda-foundation/>.

¹⁰⁹ Hof’s-Gravenhage 26 May 2021, Case No. C/09/571932 (Vereeniging Milieudefensie/Royal Dutch Shell PLC); Stanley Reed & Claire Moses, *A Dutch Court Rules That Shell Must Step Up Its Climate Change Efforts*, N.Y. TIMES (updated Oct. 28, 2021), <https://www.nytimes.com/2021/05/26/business/royal-dutch-shell-climate-change.html>.

¹¹⁰ FIRST STREET FOUNDATION, THE 6TH NATIONAL RISK ASSESSMENT: HIGH HEAT (Aug. 15, 2022), <https://report.firststreet.org/heat>.

to clean, safe, healthy, and sustainable environments as all other Americans. The issue is how can that fundamental right can be ensured in accordance with the laws of the United States.

This Module presented an overview of how fundamental rights, environmental justice, and climate change intersect, with a focus on the issues judges in the United States are likely to see in the coming years. In particular, the Constitutional Environmentalism approach and ERAs are sprouting up across the country. As the adoption of ERAs increases, they will become dominant vehicles for addressing environmental and climate injustice. In litigation, these will likely be used in coordination with other legal theories such as the public trust, public nuisance, and environmental justice and climate justice laws.

Additional Resources

BRITISH INST. OF INT'L & COMPAR. L., RISING SEA LEVELS: PROMOTING CLIMATE JUSTICE THROUGH INTERNATIONAL LAW (2021), https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/vol--44--no-2--housing/higher-ground--protecting-human-rights-as-the-climate-crisis-for/

CLIMATE ADAPTATION INITIATIVE, *At What Point Managed Retreat?: Resilience, Relocation, and Climate Justice* (2021), <https://adaptation.ei.columbia.edu/content/2021-conference-homepage>

ENVIRONMENTAL RIGHTS: THE DEVELOPMENT OF STANDARDS (Stephen J. Turner et al., ed. 2019)

Barry E. Hill, *Time for a New Age of Enlightenment for U.S. Environmental Law and Policy: Where Do We Go From Here?*, 49 ELR 10362 (Apr. 2019)

Barry E. Hill, *Bending the Arc Toward Justice*, 37 ENV'T F. 50 (July/Aug. 2020)

Barry E. Hill, *Human Rights, Environmental Justice, and Climate Change: Flint, Michigan*, ABA HUM. RTS. MAG. vol. 46, no. 4 (June 15, 2021)

FRANKLIN L. KURY, THE CONSTITUTIONAL QUESTION TO SAVE THE PLANET: THE PEOPLES' RIGHT TO A HEALTHY ENVIRONMENT (2021)

Barry E. Hill & Caitlin O'Sullivan, *Climate Canaries*, 32 ENV'T F. 25 (Nov./Dec. 2015)

Barry E. Hill, *The Silent Tsunami*, 30 ENV'T F. 24 (Mar./Apr. 2013)

Barry E. Hill, *Apocalypse or Epiphany*, 34 ENV'T F. 28 (Mar./Apr. 2017)

Robert B. McKinstry Jr. & John Dernbach, *Applying the Pennsylvania Environmental Rights Amendment Meaningfully to Climate Disruption*, 8 MICH. J. ENV'T & ADMIN. L. 49 (2018)

UNEP, GLOBAL CLIMATE LITIGATION REPORT: 2020 STATUS REVIEW (2020)

University of Montana School of Law, PUB. LAND & RESOURCES L. REV., Vol. 45 (2022), <https://scholarworks.umt.edu/plrlr/>

MAYA K. VAN ROSSUM, THE GREEN AMENDMENT: SECURING OUR RIGHT TO A HEALTHY ENVIRONMENT (2017)