

Climate Justice in the Global North: An Introduction

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ABSTRACT This essay provides a broad-based and jargon-free introduction to climate justice to foster critical thinking, engaged discussions, and profound reflections. It introduces the reader to three dimensions of justice—distributional, procedural, and recognitional justice—and shows how each relates to climate justice. A unique contribution of this essay is to identify and discuss the following three blind spots in the debates on climate justice: (1) the tendency to focus heavily on post hoc effects of climate change while ignoring the root causes of climate change that also contribute to injustices; (2) assuming incorrectly that all climate action contributes to climate justice, even though some types of climate responses can produce new climate injustices; and (3) although scholars have studied the causes of climate injustices extensively, the specific pathways to climate justice remain underdeveloped. This essay concludes by showcasing a few examples of the ongoing pursuits of climate justice, led by social justice groups, local governments, and some government agencies. **KEYWORDS** birding while black, hiking while black, Black Lives Matter, social justice, climate action, environmental justice, climate justice

INTRODUCTION

Climate change is an existential threat to human civilization. The increased frequency of climate-related disasters has been responsible for the loss of hundreds of thousands of lives in different parts of the world.¹ Yet climate change does not affect everyone equally; its consequences are distributed unequally between world regions, countries, and social groups within countries.

Countries that make up the Global North, or the “developed countries” (For a useful discussion of the vocabulary of developing versus developed countries, see <https://www.npr.org/sections/goatsandsoda/2015/01/04/372684438/if-you-shouldnt-call-it-the-third-world-what-should-you-call-it>), have benefited significantly from the energy-intensive industrial development responsible for warming the earth’s atmosphere. However, the poorest countries pay a steep price, especially

highly vulnerable small island nations (e.g., Kiribati, the Solomon Islands, Papa New Guinea, Haiti, and Guinea-Bissau) contributing the least to the climate crisis. Therefore, global policy experts often describe climate justice as an *international* issue.

The rapidly increasing emissions from China, India, and other middle-income countries cause concern, especially for the poor, who must bear the worst consequences of deteriorating land, water, and air quality. However, the climate crisis unfolding now is a result of the accumulation of greenhouse gases (GHGs) in the earth’s atmosphere since the Industrial Revolution, to which middle-income countries have contributed very little. According to one estimate, the United States alone has contributed nearly 35% of the total cumulative global CO₂ emissions since 1750.² Irrespective of where one stands on this debate, nationality and international borders are only two of several factors contributing to various types of

1. An additional 250,000 deaths a year are attributed to climate change, though that number continues to be contested by others who argue that the global death toll related to the ongoing climate crisis is likely to be much higher. <https://www.cnn.com/2019/01/16/health/climate-change-health-emergency-study/index.html>.

2. <https://www.vox.com/energy-and-environment/2019/4/24/18512804/climate-change-united-states-china-emissions>.

climate injustices. Differences in income and wealth, race, gender, ethnicity, age, and sexual identities within countries also contribute significantly to climate injustices.

This essay's primary goal is to introduce readers to climate justice questions within the Global North. Debating these questions in our backyard is vital because a focus on the poor people in the Global South detracts from a deeper understanding of inequalities and injustice at home. Equally important, a focus on the Global North allows for a better understanding of the root causes and the here-and-now nature of the currently unfolding climate crisis. The socially discriminatory effects of climate change are evident from the reportage of climate-related disasters in the United States and elsewhere, especially beginning with Hurricane Katrina [1]. Therefore, it is useful to think of climate justice as a framework to recognize and redress the unequal distribution of costs and burdens of climate change and climate responses of various types. Moreover, climate justice also requires ensuring that those affected most severely by climate change participate in brainstorming, developing, and implementing climate responses.

Attaining a substantive and deep understanding first requires recognizing three blind spots in climate justice discussions. One, even though the leading cause of climate change is related to energy-intensive lifestyles, most climate change discussions, including those on climate justice, often focus on the *effects* of climate change. A comprehensive explanation of climate justice requires avoiding such post hoc tendencies and centering our discussions on climate change's root causes. Two, very often "radical" climate response is equated with climate justice, which does not hold in all circumstances. As the discussions below show, some radical climate responses may contribute to new kinds of injustices. Three, even though understanding the sources and the effects of climate injustices is necessary, such understanding does not translate easily into the specific actions needed to realize climate justice in practice. Accordingly, this essay concludes with a brief discussion of several ongoing pursuits of climate justice.

1. ROOT CAUSES OF CLIMATE CHANGE AND CLIMATE INJUSTICES

An in-depth inquiry into the historical trajectory of climate change and climate denialism of the past half century shows that the concentration of political and economic power has been a significant cause of the current climate crisis. The distribution of power influences

how environmental amenities (e.g., clean air) and problems (e.g., pollution) are valued and distributed within national boundaries. The current economic system and the patterns of consumption it promotes are responsible for environmental degradation and environmental injustices [2]. For example, a select few multinational corporations control nearly all the global food business and consume 75% of the entire food sector's energy requirements—but feed a much smaller proportion of the world's population [3]. More broadly, the wealthiest 10% of the world's population produces almost as much GHG emissions as the bottom 90% combined [4]. The extent of income inequalities within the United States and the UK shows that these inequalities are not merely due to the differences in national economic growth, which advocates of the free market often present as a solution to poverty and underdevelopment. For instance, income growth over the last few decades has *lowered* the well-being of large parts of the U.S. population while supporting profligate consumption among the wealthiest [5]. Such a lopsided distribution of economic growth benefits is responsible for increased precariousness among large sections of the Global North population, the climate crisis, and the myriad climate injustices.

One manifestation of the imbalances in political and economic power is corporate climate denialism, which powerful corporations engineered to protect the status quo's benefits. Fossil fuel multinational corporations based in the United States have known since the early 1970s that the burning of fossil fuels caused global warming and climate change. The documents made public during the ongoing lawsuits against Exxon Mobil show that instead of acting on their knowledge of global warming, major fossil fuel corporations orchestrated a campaign of climate denialism [6]. These campaigns sowed seeds of doubt among the public and allowed the federal and state governments to continue supporting the fossil fuel industry's expansion.

Data from the Washington-based Environmental and Energy Study Institute suggest that as of the year 2019, the U.S. government awarded approximately US\$20 billion per year in *direct* subsidies to the fossil fuel industry. Eighty percent of these subsidies went to the natural gas and crude oil industries, while the coal industry received the remaining 20%.³ Similarly, the European Union subsidizes the fossil fuel industry by an estimated 55 billion

3. <https://www.eesi.org/papers/view/fact-sheet-fossil-fuel-subsidies-a-closer-look-at-tax-breaks-and-societal-costs>.

euros (or approximately US\$65 billion) annually. These subsidies give fossil fuel corporations enormous power over governments in economically underdeveloped countries, such as Nigeria and Angola, where fossil fuel extraction occurs. Therefore, fossil fuel subsidies exacerbate international inequalities that date back to European colonization and continue to shape developmental disparities today [7].

The adverse environmental and public health impacts of fossil fuel subsidies cost the global community an estimated US\$5.3 trillion in 2015 alone [8]. The costs of environmental toxicity burdens fall disproportionately on the poor and marginalized community groups who lack the political and economic power to hold the business and political actors to account. The situation is especially problematic in some of the poorest oil exporting countries, such as Angola and Nigeria. However, as the vast scholarship on environmental justice shows, the poor and racial minorities in the United States also suffer the worst consequences of environmental pollution from landfills, toxic waste dumps, and petrochemical facilities [9]. One particularly hard-hit area is a stretch of the Mississippi River between New Orleans and Baton Rouge, which hosts many highly polluting petrochemical facilities. Because of the pollution caused by the petrochemical industries, residents there have such high rates of cancer that the area is known as the “Cancer Alley” [10]. Cancer Alley has been a focal point of the U.S. environmental justice movement for over three decades [11]. However, there has been no perceptible change in the extent of environmental injustices in the Cancer Alley and other Petrochemical hubs. These toxic hot spots create dangerous new hazards in the face of the calamities linked to the climate crisis.

Hurricane Laura made landfall in Louisiana in August 2020 with a wind speed of 150 mph, which made it the strongest Category 4 hurricane on record since 1856. A Yale University report suggested that climate change may explain the rapid intensification of Atlantic hurricanes, such as Laura, which caught the forecasters and the public off guard.⁴ That results in even more severe impacts on the poor because they are least well prepared to confront these crises. These calamities are especially dangerous for communities living in areas such as Cancer Alley. Well into the second day after the deadly winds from Laura had died down, the residents of Mossville were grappling with

4. <https://yaleclimateconnections.org/2020/08/climate-change-is-causing-more-rapid-intensification-of-atlantic-hurricanes/>.

the effects of toxic gases released from a fire that erupted during the storm in a chlorine plant owned by BioLab in Westlake, Louisiana.⁵ Mossville constitutes an archetypically case of the confluence of environmental and climate injustices. Still, it is also a testimony to the deeply entrenched and ongoing effects of the history of slavery in the United States.

Mossville was founded in 1790 by formerly enslaved and free people of color, who sought refuge in a swamp to escape the oppression of segregation. They made it into a community that practiced agriculture, fishing, and hunting for generations. However, successive rounds of zoning decisions by White elected officials transformed Mossville into the “ground zero of the chemical industry boom.”⁶ Industry owners forced most residents to sell off their properties. At the same time, those who stayed had no choice but to suffer the consequences of prolonged exposure to industrial pollution and toxic contamination.⁷ Mossville’s struggles are not just a domestic issue either. The Lake Charles Chemical Complex responsible for devastating effects on the local environment and the health and well-being of Mossville residents is under the management of the South African Synthetic Oil Limited (SASOL). The apartheid-era South African government, hamstrung by international sanctions, established SASOL in 1950 to transform coal into fuel and chemicals using a technology developed by engineers in the Nazi-era Germany.⁸ This environmentally degrading technology is no longer in use, but SASOL’s record of social and environmental impacts remains appalling.

The fossil fuel industry is also tightly coupled with the defense industry, which aids the U.S. foreign policy goal of controlling the supply of oil, rare minerals, other extractive industries, and strategic shipping lanes crucial for transportation.⁹ It is common knowledge that the

5. <https://www.washingtonpost.com/climate-environment/2020/08/28/hurricane-laura-chemicals-pollution/>.

6. <https://www.sierraclub.org/change/2016/09/climate-justice-and-climate-apartheid>.

7. The author owes the knowledge of these international connections to the screening of the documentary *Mossville: When Great Trees Fall* as part of Scalawag’s “Breathing While Black” virtual event on June 25, 2020. See <https://www.scalawagmagazine.org/about/>; and <http://www.mossvilleproject.com/>.

8. <https://slate.com/business/2006/10/the-nazi-germany-apartheid-south-africa-invention-that-could-make-oil-obsolete.html>.

9. <https://www.commondreams.org/views/2019/09/26/10-ways-climate-crisis-and-militarism-are-intertwined>.

Bush administration's desire to control oil supply was one of the primary motivations for the 1991 Gulf War against Iraq. The Department of Defense is the single largest consumer of energy in the United States and the world's single largest institutional consumer of fossil fuels [12]. The so-called military-industrial complex¹⁰ exists to influence political decisions to support state subsidies for the fossil fuel and petrochemical industries. In other words, political and administrative decisions, not some random mistakes or unavoidable trade-offs, are responsible for endangering the health of the planet and the lives of poor racial minorities in areas like Cancer Alley and communities like Mossville.

Tragically, the Black communities who suffer the most from these environmental injustices are also subject to myriad other injustices, such as the police brutalities that have catalyzed a global Black Lives Matter (BLM) movement. Social scientists Lindsey Dillon and Julie Sze argue that the phrase "I can't breathe," which became a rallying cry for the BLM, points to the environmental and social conditions through which "breath is constricted or denied" [13]. The military-industrial complex is responsible, in more than one way, for producing the "embodied insecurity of Black lives" [13]. For example, a Department of Defense program called "1033" enables local police departments to purchase "surplus" war zone equipment, including the mine-resistant ambush-protected vehicles.¹¹ The Ferguson Police Department deployed some of this military-grade equipment on the streets of Ferguson to suppress public protests against the police shooting and killing of 18-year-old Michael Brown.¹² Investigations by the Public Accountability Initiative, a nonprofit corporate and government accountability research institute, show that police foundations that support local police departments are partially funded by fossil fuel corporations such as Chevron, Shell and Wells Fargo. Their report concluded: "Many powerful companies that drive environmental injustice are also backers of the same police departments that tyrannize the very communities these corporate actors pollute" [14, 15].

10. <https://www.britannica.com/topic/military-industrial-complex>.

11. <https://www.usatoday.com/story/opinion/2014/08/13/ferguson-police-michael-brown-militarization-column/14006383/>.

12. <https://www.theatlantic.com/national/archive/2014/08/the-pentagon-gave-the-ferguson-police-department-military-grade-weapons/376033/>.

These complex links between social, environmental, and climate injustices are reminders that it may not always be useful to consider social, environmental, and climate injustices in isolation from one another.¹³

2. CLIMATE JUSTICE: DISTRIBUTIONAL, PROCEDURAL, AND RECOGNITIONAL DIMENSIONS

"Climate justice" is commonly thought of as the unfair *distribution* of costs and burdens of climate change. However, two other dimensions of justice spelled out by justice theorists are equally important: procedural and recognitional justice. This section explains each of these three dimensions and their relation to pursuits of climate justice.

2.1. Distributional Effects of Climate Change

Distributional justice focuses on a fair distribution of costs and burdens of climate change and the societal responses to climate change. Vulnerability to climate change is a result of a lack of protection against risks linked to natural events. If everyone in society were equally protected, the costs and burdens related to a disaster would not fall disproportionately on some social groups. However, individuals and groups, such as racial minorities, homeless people, people with disabilities, single moms, and poor people, are more vulnerable to the effects of disasters. These vulnerabilities are a result of policies and programs that push racial minorities and other socially marginalized groups into poverty and destitution. Exclusionary zoning laws and redlining policies during the New Deal era illustrate this point well. The term "redlining" referred to the practice of drawing red lines on urban planning maps to identify African American neighborhoods as being "too risky to insure mortgages."¹⁴ These maps informed the actions of the Federal Housing Administration, the Veterans Administration, and Home Owners Loan Corp., thereby depriving African American towns and neighborhoods of public investments. The members of minority communities could not buy properties in some areas because the administration "reserved" these neighborhoods for affluent White families [16].

13. <https://mn350.org/2020/06/black-lives-matter-there-is-no-climate-justice-without-racial-justice/>.

14. <https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america>.

This history of urban segregation and racially prejudiced urban and suburban developments is why inner-city neighborhoods lack basic civic amenities and infrastructure that middle-class neighborhoods take for granted. These historical legacies translate into increased vulnerabilities in the context of the climate crisis. For example, an estimated 400,000 New Yorkers who live in the New York City Housing Authority's public housing developments bore the worst effects of Hurricane Sandy in October–November 2012. The floods that occurred because of Hurricane Sandy greatly exacerbated rampant mold problems in these projects, with far-reaching health impacts for residents with respiratory illnesses [14]. The quality and affordability of housing for minorities are also among the causes of “energy poverty” or high energy burden, which is the percentage of income a person or household spends on energy [17, 18]. Energy poverty makes it difficult to cope with the impacts of storms and floods while also leaving the energy-poor families vulnerable to the shocks related to increased energy prices that could result from a transition to renewable energy.

The problem is equally or even more severe in the predominantly African American rural areas. For instance, a 2017 report in the *American Journal of Tropical Medicine and Hygiene* found that among 55 adults surveyed in Lowndes County, Alabama, 34.5% tested positive for hookworms. The presence of this intestinal parasite is a sign of extreme poverty. Specifically, it results from an inadequate sewage system with cracked pipes of untreated waste that contaminate drinking water. In some places, this results in open pools of raw sewage, which flush human feces back into kitchen sinks and bathtubs during the rainy season [19]. Environmental and climate justice activist Catherine Flowers argues that the intensification of heavy rains and floods because of the ongoing climate crisis is overwhelming the broken sewer systems and undermining poor African Americans' lives and livelihoods [20].

The distributive injustices of the economic system have become even more pronounced in the presence of large and increasing wealth and income inequalities. These distributional inequalities affect entire regions and local jurisdictions, undermining their ability to provide civil amenities in the aftermath of a natural disaster and ensure human security. A stark reflection of these distributional consequences is that the poor and the marginalized experience the most devastating impacts of a climate disaster, that is, the loss of human lives.

2.2. Procedural Rights

Another important dimension of climate justice is procedural justice, which refers to whether and how the groups most affected by climate change have meaningful opportunities to participate in brainstorming, designing, and implementing climate responses. Historically, African Americans and other racial minorities have been underrepresented in environmental and climate movements. The U.S. environmental justice movement has been calling attention to this issue for a quarter of a century, yet the problem of a lack of diversity persists. Research on 191 conservation and preservation organizations, 74 government environmental agencies, and 28 environmental grant-making foundations shows that racial minorities constitute 16% of staff and board members. Once recruited, members of minority communities tend to concentrate in lower ranks, trapped beneath a glass ceiling [21]. Although environmental institutions have made significant progress on gender diversity, such gains have mostly accrued to White women [21]. Such an underrepresentation in environmental movements leads to the exclusion of minorities from policy-making processes, which also creates the mistaken assumption that racial minorities are too poor to care about the environment or climate change. However, nationally representative surveys show that people of color, including Hispanics/Latinos, African Americans, and other non-White racial/ethnic groups, are more concerned than Whites about climate change [22]. Even so, higher levels of awareness are not sufficient to foster meaningful participation, which requires carefully designed processes that facilitate respectful engagement between members of marginalized groups and decision makers, such as city leaders [23].

The involvement of those affected most by climate change is essential for two key reasons. First, there are legal, statutory, political reasons for ensuring broad-based participation. Principle 10 of the Rio Declaration on Environment and Development sets out three fundamental access rights: access to information, access to public participation, and access to justice as key pillars of sound environmental governance [24]. Agenda 21 has subsequently been integrated into various national, provincial, and local statutes and continues to be a source of learning for the ongoing debates about just transition [25]. The access rights are also in conformity with recognizing political and civil rights as the essence of universal rights enshrined in the Universal Declaration of Human

Rights. A second reason for ensuring local participation has to do with the substantive effects of an inclusive process. Those most affected by the climate crisis are also likely to contribute the most insightful ideas about how best to address the vulnerabilities that produce climate injustices in the first place. For example, the Office of Sustainability in the city of Providence, RI, partnered with the city's Racial and Environmental Justice Committee to make sure that the city's climate action plan adhered to the Just Providence Framework developed previously by the city residents and leaders.¹⁵ This process turned out to be so successful that the city's Climate Action Plan metamorphosed into a Climate Justice Plan. Additionally, the city's Office of Sustainability adopted a system of governance that is based on collaborating actively and routinely with community-based organizations.¹⁶

2.3. "Recognition" Justice

The promises of procedural justice remain unfulfilled in many cases because people from all social groups are not always *recognized* as legitimate actors, whose understanding of a problem and whose interests and priorities should inform the design and implementation of policies and programs [26]. On the other hand, marginalized groups are subject to *misrecognition*, which Nancy Fraser refers to as an institutionalized pattern of cultural values that "constitutes some social actors as less than full members of society and prevents them from participating as peers" [27]. Thus, the twin concepts of recognition and misrecognition are related to patterns of "privilege and oppression," which manifest in the form of "cultural domination, being rendered invisible, and routine stereotyping or maligning in public representations" [26]. In a very profound way, recognition and misrecognition are the foundational questions of climate justice with wide-ranging consequences. As David Schlosberg has argued, a lack of respect and recognition often leads to a decline in a person's or a group's "membership and participation in the greater community, including the political and institutional order" [28]. Therefore, a lack of recognition presents a formidable barrier against addressing procedural and distributional concerns.

15. <https://grist.org/article/providence-shows-other-cities-how-environmental-justice-is-done/>.

16. Anon. 2019. The City of Providence's Climate Justice Plan.

The following example illustrates how questions of recognition manifest in climate policy contexts. Harvey, a category 4 hurricane, struck Houston in August 2017. Maria, a category 5 hurricane, struck Puerto Rico in September. A review of public records from the Federal Emergency Management Agency and interviews with more than 50 people involved with disaster response revealed that the Trump administration's response was far more swift in Houston than Puerto Rico, which experienced far greater destruction [29]. Many Puerto Ricans believed that this was more evidence that the president viewed them as "second-class American citizens" [30]. On numerous occasions, President Trump criticized Puerto Rico for being a "mess" and its leaders as "crazed and incompetent," which constitutes an instance of misrecognition [31]. The Governor of Puerto Rico Tweeted, "Mr. President, once again, we are not your adversaries, we are your citizens" [31]. The Governor of Puerto Rico felt that the Trump administration did not recognize their rights as U.S. citizens, which influenced how the federal government responded to the most devastating climate-related disaster to date in the United States. Such lack of recognition or misrecognition is not new; it did not start with the Trump administration. Even though Puerto Ricans are U.S. citizens, the national political process treats them as subordinates. They do not have voting representation in the U.S. Congress or the Presidential elections. Unfortunately, a more detailed analysis is beyond the scope of this essay. Still, other scholars show how the environmental and climate injustices experienced by the people of Puerto Rico result from a long history of colonialism, occupation of large parts of the island's territory by the U.S. Navy, and the neoliberal policies imposed on the island [32, 33].

African American citizens in the United States have had very similar experiences, even though the political process does not disadvantage them formally. The dominant narratives used in media and political discourse, which often describe African American men as aggressive, angry, and prone to criminal violence, reinforce longstanding prejudices against racial minorities. Such negative constructions of social identities lead some to perceive the presence of African American men in the wilderness, or even in parks, as suspicious or threatening. A May 2020 incident involving an African American birder in New York's Central Park illustrates the point. The birder asked a White woman jogger to leash her dog, as the law

required. However, instead of following the park rules, the woman called the cops on the birder. A video recorded by the birder and circulated widely on social media showed the woman repeatedly telling the cops on the phone that “there’s an African American man threatening my life” [34]. Afterward, several other African American birders and hikers shared similar racial profiling experiences on social media with hashtags like #BirdingWhileBlack and #HikingWhileBlack. A common theme evident in each of these experiences is that many White people in the United States do not perceive or recognize Black people as birders, nature photographers, or hikers [35, 36].

Other social groups, such as indigenous people and Latinx, are also often subject to prejudices and profiling, which contribute to the negative construction of their identities and instances of misrecognition in society and politics [37]. As Nancy Fraser argues, misrecognition and negative stereotyping can contribute to the institutionalization of prejudiced norms within public policies and programs, for example, via the zoning and redlining practices that sacrifice the interests of negatively portrayed groups. Notwithstanding the racialized histories of urban development in the United States and elsewhere, some commentators argue that the considerations of social justice will muddle the efforts to decarbonize the economy “quickly and efficiently.”¹⁷ This argument draws on the perspective that there are significant trade-offs between climate action and climate justice.

One relevant example is hydraulic fracturing, or fracking, which many see as a boon for providing abundant natural gas supplies crucial to the “transition” away from the dirty fuel of coal. They argue that the relatively more climate-friendly energy available from natural gas, coupled with economic benefits that local communities gain in the short term, must be weighed against the risks of adverse public health and environmental consequences.¹⁸ Yet, laws that protect the privacy of proprietary data hinder public access to information about the health and ecological consequences of the chemical cocktails used in fracking, even though such information is vital to the goals of public health and environmental protections. Overall, a broader systems approach suggests a significantly more extensive set of adverse consequences, including the

17. https://www.washingtonpost.com/opinions/want-a-green-new-deal-heres-a-better-one/2019/02/24/2d7e491c-36d2-11e9-af5b-b51b7ff322e9_story.html.

18. <https://www.aeaweb.org/research/fracking-shale-local-impact-net>.

“impacts from the decline in water quality on soil, land, and ecosystem productivity (crops/animal health); effects of fracking-related air pollution on pollinators; effects on the development of local, alternative food systems; and, fracking-related boom-bust dynamics” [38]. The range of these negative consequences raise questions about the narratives of trade-offs in fracking .

Some proponents of a speedy transition to renewable energy also cite the supposed tradeoff between efficiency and equity to argue for allowing competent energy companies to develop, install, and own industrial-scale renewable energy grids. However, this view ignores the many benefits of wide-ranging consultations and collaborations with local communities that could enhance the public acceptance and efficacy of renewable energy infrastructure [39]. Somewhat ironically, some of the most challenging trade-offs may be witnessed in communities most vulnerable to climate change, for example, indigenous communities that seek to secure their “sovereignty by the barrel” because the compulsions borne out of marginality constrain their choices for economic development.¹⁹ Such a “take it or leave it” scenario of limited choices reflects longstanding disadvantages, which the ongoing climate crisis is likely to exacerbate. Overall, it is crucial to investigate the arguments about potential trade-offs in a nuanced way so that some parties do not weaponize these arguments [40].

3. INJUSTICES OF CLIMATE RESPONSES

Climate response has three components: mitigation, which refers to actions that help reduce emissions of GHGs; adaptation, which refers to measures that reduce vulnerability to the consequences of climate change; and resilience, which refers to the properties that enable a socioecological system to withstand the shocks of climate change. Although adaptation and resilience are closely intertwined, adaptation actions are generally thought of as responses to climate change impacts, while resilience actions are anticipatory. Each of these three types of “climate responses” has important implications for justice. Additionally, we briefly consider the importance of taking an intersectional approach to understanding climate action’s justice effects.

A central component of the efforts to mitigate climate change is to curtail carbon emissions linked to energy-

19. <https://indiancountrytoday.com/archive/sovereignty-by-the-barrel-tribe-takes-control-of-oil-production-4F796kUA0oS2GrEx3TfGBw>.

intensive consumption. However, in democratic societies, one cannot merely ban or arbitrarily restrict energy-intensive activities, not least because many of these activities are a source of employment and other means of economic wellbeing for many lower-income families. The next best option is to put a price on carbon emissions, commonly referred to as “carbon tax,” which many scholars and practitioners see as one of the most effective means of climate mitigation. If we lived in a world of economic and wealth equality, a carbon tax would simply realign economic incentives without imposing excessive burdens on specific social groups. However, in the presence of massive economic and wealth inequalities, a carbon tax would affect poor and/or racial minority households very differently compared to others. Unless subsistence items, such as food, water, and energy were protected from the inflationary effects of carbon taxes, even a moderate level of the carbon tax could make these items too expensive for the poor in the United States.

In Paris, the Yellow Vest protestors cited economic inequalities and the unfairness of the gas tax that President Emmanuel Macron announced in 2019 as one of the main reasons for the protests. The protestors felt that it was unfair to ask low- and middle-income folks to “make sacrifices while rich people aren’t paying taxes anymore.” This feeling of unfairness contributed to “a sense of despair, as well as a sense of social injustice” [41]. The adverse effects of climate mitigation are not always contained within the national borders, though.

Carbon offsets projects, including some that may be funded by environmentally conscious consumers paying an airline a little extra to offset the emissions linked to their air travel, have been implicated in the dispossession and displacements of indigenous groups in different parts of the world.²⁰ Such projects may be less problematic when implemented within the Global North, characterized by the security of property rights and a robust rule of law. These conditions do not apply to most terrestrial carbon offset projects in Africa or Asia. Over 95% of forestlands are legally defined as public lands, even though most of these lands have been used customarily by indigenous peoples and other rural populations. Under those conditions, the financial returns linked to carbon offset projects incentivize powerful government agencies and private actors to set aside these lands for

carbon offset projects, including in countries where customary land tenures are protected under the statute. The international community has developed social safeguards and other codes of conduct to regulate offset projects. However, research by the Center for International Forestry Research, the Oakland Institute, and the Rights & Resources Initiative shows that international offset projects contribute to widespread human rights violations [42, 43].

Similarly, a large-scale switch to renewables, including electric or hybrid batteries, windmills, and solar panels, could lead to a sudden spike in demand for rare minerals, such as copper and cobalt. The mining of these minerals also often contributes to gross human rights abuses, including child labor and the degradation and depletion of natural resources, such as water, forests, and pastures crucial for local livelihoods in the Global South [44]. For these reasons, some scholars argue that industrial-scale renewable energy infrastructure can be as exploitative as the fossil fuel industry practices have been. Noticeably, this argument applies to *industrial-scale* renewable infrastructure. Renewable energy resources can also exist in the form of “energy commons,” which give local communities real stakes in making decisions about siting, pricing, and profit-sharing [45]. Such democratization of energy infrastructure is crucial for implementing a transition plan that suits the site-specific requirements.

Some consider climate adaptation, that is, the measures designed to deal with the climate crisis, to be synonymous with climate justice. The argument is that if the worst consequences of climate change fall on the poor and the marginalized, any interventions meant to adapt to climate change would necessarily help the poor. Yet not all climate adaptation measures are created equal. For example, coastal adaptation measures in response to sea-level rise should help sustain rather than disrupt subsistence and artisanal fishing, which are the mainstay of livelihood strategies for many coastal frontline communities. More broadly, as Dean Hardy and colleagues argue, “the land facing inundation is racialized land . . . that has been appropriated, settled, cultivated, and distributed through a long history of deeply racialized projects” [46]. They argue that sea-level rise adaptation planning must recognize the reality of such “racial coastal formations” and must commit to “resist the reproduction of and reinvestments in racial inequality in responses to climate change” [46].

20. <https://redd-monitor.org/2016/10/19/five-responses-to-the-aviation-industrys-carbon-offsetting-scam/>.

The failure to address racial inequalities means that many urban climate adaptation interventions, such as public transit systems, public parks, and improved civic amenities, may increase property prices or rentals, which makes some areas unaffordable to their current residents. These changes lead to urban gentrification, which refers to the changes in a neighborhood's composition because of changes in property values. It is called climate gentrification when such changes are related to climate change [47]. The framework of climate gentrification helps illuminate the social determinants of vulnerability. For example, as the rising sea levels and frequent flooding threaten expensive properties on Miami's famed beaches, wealthy people invest in properties inland. The flux of new investments and new wealthy residents makes the previously low-income neighborhoods too costly to afford for low-income groups [48]. As human geographer Jesse Ribot has argued, "vulnerability does not fall from the sky" [49]. Considering that socioeconomic deprivations contribute to climate change-related vulnerabilities, any efforts to address climate injustice must address such disadvantages.

4. THE PURSUIT OF CLIMATE JUSTICE

The discussions above demonstrate that climate injustices are not just about the "climate system" or "global warming" but are rooted firmly in the unequal patterns of vulnerabilities shaped by the distribution of social and political power and economic inequalities. Climate change's social consequences manifest in outcomes related to urban development patterns, energy prices, urban transportation, food production, and food markets. By implication, the pursuit of climate justice also requires addressing these various sectors of the economy and society. The following are some examples of how local governments, civic groups, academic institutions, and social movements seek to pursue climate justice.

The fossil-fuel divestment movement popularized by 350.org has grown to secure commitments to divest more than US\$14 trillion worth of investments made by more than 1,230 institutions, including religious institutions, pension funds, university endowments, and large charitable foundations. College students from several universities in the United States, Europe, and elsewhere have made significant contributions to the global fossil fuel divestment movement's ongoing success [50]. The decline of the fossil fuel industry, including the state-owned oil corporations in some of the largest oil producing countries,

will undoubtedly lower environmental pollution and contribute to environmental and climate justice. Another example from the energy sector is the 2019 Tennessee Valley Energy Democracy Tour, which focused on building a collective grassroots vision for an egalitarian energy future in the communities impacted by the New Deal era projects of the Tennessee Valley Authority.²¹ This tour served as a good reminder of why we need to pay attention to the historical legacies of unequal development and socioeconomic marginalization. Transformative reforms in state-level energy policies and programs are other crucial elements necessary for fostering an inclusive clean energy action. The Washington-based Institute for Local Self-Reliance scores and ranks states on their energy policies, specifically their devolution and inclusiveness [51]. Such rankings create useful resources for grassroots actors and could help foster healthy competition among states.

Climate justice interventions related to urban areas include the Miami City Commission's resolution directing the city managers to research urban gentrification and ways of stabilizing property tax rates in lower income areas located further inland [52]. City governments can act to institutionalize other means of fostering a healthy urban ecosystem. In 2019, the Boston City Council voted unanimously to enact a Good Food Purchasing Program (GFPP) for a more equitable food purchasing system at public institutions. Seven other cities, including Los Angeles, Chicago, and Cincinnati, have also adopted GFPP policies [53]. These initiatives help urban populations cut down on their reliance on imported food items that leave a significant carbon footprint. In doing so, they also undercut the stronghold of industrial agriculture, which is a large consumer of fossil fuels and one of the major causes of global climate change [54]. Equally important, food ordinances can help improve the profitability of urban and peri-urban agro-ecological farming, which is associated with multiple social, economic, environmental, and climate-related benefits [55]. More broadly, instead of privatizing urban infrastructure or having monopolistic state control, reimagining the city as a "commons" gives urban residents a collective stake in a city's resources [56]. Democratizing urban governance—that is, allowing

21. The tour was co-organized by Appalachian Voices, Science for the People, Statewide Organizing for Community eMpowerment (SOCM), Working Films, and a group of community members and organizers in the greater Knoxville area. <http://appvoices.org/2019/11/26/re-envisioning-public-power-in-the-tennessee-valley/>.

urban residents a meaningful say in the conduct of the ongoing affairs in a city—is an important prerequisite for incorporating concerns of ecology and environment into our urban imaginations.

La Via Campesina, a transnational social movement, promotes agroecology and food sovereignty by engaging with all relevant actors, including the United Nations at the global level and peasant federations at the subnational level. They have been instrumental in the successful enactment of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas. *La Via Campesina* engages with 182 organizations representing an estimated 200 million farmers from 81 countries throughout Africa, Asia, Europe, and the Americas. Another example of a grassroots network that has made a global impact is the Indigenous Environmental Network (IEN), founded in 1990 in Bemidji, MN, to address environmental and economic justice issues. IEN has also been one of the key actors in the global climate justice movement, mainly via its participation in the annual United Nations Climate Change meetings. The IEN has recently launched a *People's Orientation to a Regenerative Economy: Protect, Repair, Invest and Transform* to put indigenous sovereignty and values at the front and center of collective efforts toward a sustainable future [57].

These are some examples of interventions from various actors and agencies invested in the pursuits of climate justice. Each of the examples cited above addresses a specific policy and programmatic area relevant to the daily lives of the people at the frontlines of climate change. However, the energy-intensive luxury consumption in the Global North and in some sections of the Global South that contribute significantly to the climate crisis does not receive adequate attention from policy makers. Our collective efforts to address climate change are unlikely to succeed if we fail to reduce consumption, especially the consumption of goods and services linked to “luxury emissions,” such as privately owned planes. The average carbon footprint of the wealthiest 1% of people globally could be 175 times that of the poorest 10% [58]. On the other hand, large sections of populations in the global South are still grappling with the provision of necessities such as nutritious food, safe drinking water, and a reliable supply of clean energy. Hundreds of millions also lack access to amenities such as sanitation systems, schools, and hospitals, as reflected in the United Nations 2030

Agenda for Sustainable Development. The emissions related to these activities are called “survival emissions” [59]. Some climate policy discussions tend to obfuscate these distinctions using the language of “human footprint” and “population problem” [60]. Such framings create a false equivalence between luxury consumption and survival emissions, while accounting for these distinctions provides policy guidance for climate policies that can be both just and efficient.

As the discussion on fossil fuel subsidies demonstrates, the patterns of consumption and deprivation are products of political and economic structures. National policies and the actions of powerful state and non-state corporate actors have severe consequences for what happens at the local level. Any high-level reforms would not necessarily translate into a realization of climate justice without social and political mobilization at the grassroots level. For over three decades, environmental and social justice movements have struggled to bring these issues to the public agenda both in the United States and globally. Advocates of climate justice would benefit from building on the insights and lessons from these movements [61]. Additionally, transformative reforms in the economy and society, executed via the federal or state-level agencies, are also equally important. We must seek to address the limits of liberal state, which are responsible for the entrenchment of racial capitalism and the climate crisis [62]. Climate justice calls for wide-ranging reforms and concerted actions in the cultural, social, economic, and political spheres.

QUESTIONS FOR CLASSROOM DISCUSSIONS

1. What separates climate action advocacy from climate justice advocacy?
2. Is it too much to expect climate justice advocates to also address questions of social injustices of race, gender, and sexual identity, among others?
3. In your assessment, are links between the military-industrial complex, the Black Lives Matter movement, and the outcomes of environmental and climate justice that this essay suggest a bit “over the top”? Why or why not?
4. Do the simultaneous pursuits of climate response and climate justice necessarily entail trade-offs? What factors must be considered in

assessing the extent of a trade-off in any given situation?

5. How does the consideration of a plurality of values to define human well-being affect our assessment of trade-offs in climate action/climate justice debates?
6. How could we reorient our food systems to promote socially just climate responses?
7. What role can municipal governments play in promoting climate justice?
8. Are the arguments about “city as a commons” or “energy commons” part of utopian thinking that cannot be translated into pragmatic policy reforms?
9. What roles do consumers and citizens play in advancing the goals of climate justice?
10. Could you think of examples of policies and programs not discussed above that might also contribute to climate justice? For each example, please explain the specific contribution to climate justice.

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