



CLOSUP Student Working Paper Series  
Number 66

April 2021

# **Cities of plight: Climate justice intervention in Baltimore and Seattle**

Senna Catenacci, University of Michigan

This paper is available online at <http://closup.umich.edu>

Papers in the CLOSUP Student Working Paper Series are written by students at the University of Michigan. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the view of the Center for Local, State, and Urban Policy or any sponsoring agency

Center for Local, State, and Urban Policy  
Gerald R. Ford School of Public Policy  
University of Michigan

Cities of plight: Climate justice intervention in Baltimore and Seattle  
Senna Catenacci  
University of Michigan  
Program in the Environment Honors Thesis

Advisor: Sarah Mills  
Reader: Sara Hughes

Winter 2021

## **I. Abstract**

Though the climate crisis will eventually spare no one, it is inherently an issue of justice and equity. This paper aims to discern how two coastal cities - Baltimore and Seattle - are contending with climate change and, more specifically, climate justice. The latter is widely considered to be composed of three dimensions, or pillars: recognitional, distributional, and procedural justice. Further attention is paid to how the demographic makeup of these places may interact with the action present there. This research takes the form of two case studies, analyzed through a framework consisting of each of the three climate justice pillars. The results of this investigation indicate that while each city is relatively comparable in what they have done, more significant are the large differences in the role that government and nonprofit actors have played. This research provides policymakers with explicit examples of the efforts underway in Baltimore and Seattle to both recognize and elevate climate justice, while also serving to call more attention to climate justice in these cities, and others.

## **II. Introduction**

While there are a myriad of societal problems facing the world today, nearly all of them share a connection with climate change. The effects of a warming world can be felt in a multitude of ways, both tangible and intangible, and one of these is the exacerbation of socioeconomic inequalities. Specifically, those who have been historically marginalized are more likely to bear the worst burdens that climate change has already borne, and will continue to do so in the future absent outside intervention (Simmons, 2020). Ironically, in the worst sense of the word, these are the same groups who have contributed the least to this crisis (Nicholas and Breakey, 2017). Heat and heat island effects, extreme weather events, abject air quality, and pollution, caused by the purposeful siting of toxic facilities in disadvantaged areas, are among a few of the ways in which low-income and communities of color are made to be the test subjects of climate change (Cho, 2020). The movement, and coinciding field of study, that aims to correct this inequity is called climate justice.

Though climate change is a universal phenomenon, its effects are particularly acute in cities, where a majority of the world's population resides (Cohen, 2018). This is especially true for coastal cities, where sea level rises poses one of the biggest threats, compounded often by multiple others as well. Given the extent of what is at stake in urban areas, it is crucial then to ascertain methods of mitigating and adapting to climate change in them. Moreover, cities are significant contributors to greenhouse gas emissions, further underscoring the need to convert them into areas of climate reprieve (Klinsky and Mavrogianni, 2020). Research has found, however, that municipal climate governance is predominantly diffused and frequently not representative of the world at large (Van der Heijden, 2019). Prominent too in cities, especially the United States but elsewhere as well, are histories of racism and disadvantage that have been built into their foundations, breeding climate inequity (Klinsky and Mavrogianni, 2020). Such patterns of marginalization exemplify the necessity of ameliorating the disparities they have produced, particularly pertaining to climate.

The U.S. cities of Baltimore and Seattle have not been spared from this narrative, and both being coastal cities are at a heightened risk to the consequences of climate change. Baltimore is already facing its share of climate-related catastrophes, including flooding and extreme temperatures (“Baltimore and Climate Change,” n.d.). These impacts have been mostly borne by predominantly Black and low-income neighborhoods (Bonifay, 2019; Roper, 2019; “Bitter Cold,” n.d.). Sea-level rise and drastic temperature variances also plague Seattle (“Projected Climate Changes,” n.d.), and will continue to increase in intensity the longer a “business-as-usual” scenario is maintained (Brownstone, 2015). Seattle, too, is seeing those most marginalized as the prime recipients of climatic burdens, undergoing more pollution and having a lesser ability to respond to forced displacement (Al Baz, 2019).

While Baltimore and Seattle share commonalities in regards to climate, they differ in their composition. Seattle is a mostly wealthy, White city, and though there exists racial diversity the city is still plagued by myriad inequality (“About Seattle,” n.d.). Baltimore is largely lower income and Black (“U.S. Census Bureau,” n.d.), but still faces the same nuances as Seattle (see Table 1 for specific demographic data about each municipality). The extent to which this factors into the degree of climate justice taking place in each place, however, is yet unknown. This paper will attempt to answer this question, examining two otherwise comparable cities to discern how climate justice is being addressed in each, and if this could differ due to demographics. An assessment of the current research on climate justice will precede a discussion of the paper’s methods, followed by the results from each of the two case studies. A subsequent analysis and conclusion will round out the investigation.

### **III. Review of Literature**

As the impacts of climate change become more visible and expansive (“IPCC,” 2018), so too has the literature on it. Moreover, within this field of study has emerged a conceptualization of climate change as one pertaining to human rights and equity, largely determined by where the negative effects of this problem lie (Venn, 2019). This discipline, called climate justice, has helped to reveal that these climatic burdens disproportionately fall upon those who are most vulnerable to them, specifically lower-income groups and minorities, who tend to be one in the same (Barrett, 2013). At the root of climate justice is the imbalance of who contributes to climate change and who suffers as a consequence, a disparity which allows inequity to flourish (Shue, 2014). This phenomenon, documented across a variety of scholarship, is evidenced, for example, in research by Kim et al. (2018), who found that the likelihood of climate risk rose with an increase in both poverty rate and proportion of nonwhite individuals. However, despite its increasing prevalence in academia, few cities have toyed with justice explicitly when undertaking climate change mitigation and adaptation experiments (Castán Broto and Bulkeley, 2013).

As climate justice has taken shape over time, specific dimensions of what this looks like in practice have been formulated. While there is slight variation across the literature, a general consensus has been formed around three “pillars”: procedural justice, distributive justice, and

recognition (Hughes, 2020; Jurjonas et al., 2020; Archer and Dodman, 2015; Bulkeley et al., 2014). Procedural justice concerns the extent to which local and diverse voices are incorporated into climate change discussion and decision-making - and specifically those who are most affected - while distributive justice examines how resources and burdens are concentrated throughout an area (Jurjonas et al., 2020). Recognition mandates a confrontation of past and present injustices on the part of those with power, and further necessitates a reversal of the “policies and practices” that led to such social and economic imbalances to begin with (Hughes, 2020). These facets of climate justice can also be described in terms of rights (both “to” environmental goods and “from” environmental harms) and responsibilities regarding the protection of ecosystems and human health, and who should assume how much accountability (Bulkeley et al., 2013).

At the international level, recognition has traditionally been left out of climate justice discourse, or has been underemphasized in favor of a planar theoretical model consisting of distributions and procedures on one axis, and rights and responsibilities on the other (Archer and Dodman, 2015). Recent literature by Bulkeley et al. (2014) however has proposed a new conceptualization of climate justice, one that resembles a pyramid where all of the former assumptions remain intact, but they are situated upon a base of recognition. This, the authors argue, illustrates how each of these factors are interconnected with one another, and that no one can be considered in a vacuum (Bulkeley et al., 2014). Indeed, studies such as that by Hardy et al. (2017) have demonstrated how a lack of recognition can be highly detrimental to a community’s adaptation plans, trivializing any policy initiatives that may be attempted. When one begins with a lack of historical context, it becomes difficult to implement solutions that effectively address the structural and intangible foundations upon which these problems lie.

A myriad of other studies have similarly shown how, like the climate justice pyramid underscores, it is common to find a lack of one kind of justice accompanied by other shortcomings as well. Research by Jurjonas et al. (2020) revealed that residents of a rural North Carolina community viewed there to be a lack of all three justice components in regards to the climate change action undertaken by their local government, and work by McManus et al. (2014) described a lack of distributional and procedural justice in two urban Australian neighborhoods. Moreover, this study, along with one conducted by Byskov et al. (2019), highlighted the tension that can arise between these forms of justice. This was seen in Australia in the form of reduced housing prices in areas that had been designated as vulnerable to climate change, which negatively impacted those who were already of lower socioeconomic statuses (McManus et al., 2014). In the Byskov et al. (2019) paper, the authors discussed the need to consider how climate change mitigation can be pursued without inhibiting the development of low-income communities. These both demonstrate the complexities of climate justice, and how a balance must be struck between recognition and distribution, between rights and responsibilities.

While incorporating justice ideals into planning policy and projects can be difficult, literature has shown the benefits that arise when done effectively. One such example are the case studies conducted by Hughes (2020) that examined the “legacy cities” of Detroit and Cleveland.

Despite a lack of statewide climate justice legislation or incentivization to develop climate policies, the author found these two cities to be leaders in this arena by way of their local policies, and that each “foregrounded justice and equity in their climate change adaptation planning efforts” (Hughes, 2020, p. 40). The result has been an increased focus on where the greatest needs in each city are pertaining to efforts surrounding climate action, as well as dynamic community collaboration and the empowerment of grassroots organizing (Hughes, 2020). A parallel scenario unfolded in Quito, Ecuador, where a near-epitomization of climate justice in policy was seen. Ingrained within the city’s governmental processes are protocols for ensuring citizen engagement, which has translated to a plethora of community networks, strong citizen-government relationships, and an emphasis on the inclusion of those who are most climatically vulnerable (Chu et al., 2015). An important distinction with Quito though is that it is a city of nearly three million, and consequently one of the reasons it is such an emblematic case may be attributed to its resource capacity.

Due to the more proximate nature of local policy governance, climate action policies can be most visible, and impactful, when implemented at the local level. This also means, however, that cities often face an uphill battle in terms of ability and extent to which these policies can be incorporated, depending on where specifically they are situated. For example, Quito is a large city with a history of citizen engagement, and thus was fairly well positioned to be a leader in climate justice policy (Chu et al., 2015). On the contrary, the North Carolina research by Jurjonas et al. (2020) found the community’s residents to view themselves as having limited adaptive capacity to climate change, likely influenced by the small, rural nature of where they lived. Such scholarship demonstrates the dichotomy of capacity, both technical and social. This was also seen in case studies of cities in Indonesia and Thailand, where the authors concluded that it is often not only the technical component of capacity building that must be examined, but a consideration of how dimensions of politics and personal interests can impact effective implementation as well (Archer and Dodman, 2015). Capacity building can also exist beyond the local level, and there are some indications that city networks can improve a city’s ability to pass aggressive climate legislation through a type of crowdsourcing of resources, including knowledge and funding, across a group of municipalities (van der Heijden, 2019). The author also points out potential drawbacks of such a schema though, including free-riding by non-contributing participants.

Crucial to building capacity of any kind is an awareness and knowledge of the cause that capacity is being built for. This is necessary on the part of the government, its constituents, and other stakeholders within the community. Research such as that by Jurjonas et al. (2020) has found that a baseline understanding of the climate threats facing a community is the starting point in developing a method of information sharing that is effective in settings where race and income are important contextual factors. One way of producing such knowledge can come from training programs targeted towards policy- and decision-makers, as was documented by Archer and Dodman (2015). In case studies of two South Asian cities, the researchers found that capacity building activities fostered a more comprehensive understanding of climate change, and

also led to improved communication skills regarding the issue and more analytical thinking and problem-solving (Archer and Dodman, 2015).

Another source of knowledge comes from communities themselves, however accessing it implores procedural justice processes. Byskov et al. (2019) explain how the inclusion of “civil society actors,” such as residents and nonprofits, in planning is crucial, as they have a unique perspective on the surrounding environment that lends itself to the creation of “sustainable and responsive adaptation and resilience” legislation. Numerous other case studies have also pointed to procedural justice, and therefore local knowledge-sharing, as being a vital element in developing long-term climate justice solutions (Jurjonas et al, 2020; Baker et al., 2019; Rice et al., 2019; McManus et al., 2014). This practice also serves as the basis for elevated recognition by policymakers, another key component of comprehensive justice.

In terms of what climate justice action in cities looks like so far, such case studies provide valuable insight into how (in)effective planning can lead to very disparate outcomes depending on the locality and processes it engaged with. As described previously, Detroit and Cleveland saw holistic climate policy adaptation, following an integrated government-community relationship that successfully acknowledged all modes of climate justice (Hughes, 2020). Another emblematic case, the aforementioned Quito, Ecuador, has seen similar triumphs, where community groups are funded to formulate climate action initiatives, and the concerns of vulnerable populations have been made a priority (Chu et al., 2015). The same can not be said regarding other cities, however. Following a lackluster effort on behalf of the local government in Australia to incorporate residents into climate adaptation planning, the city has been left with policies that largely favor the area’s wealthier, whiter residents (McManus et al., 2014). This has also resulted in a poor relationship between the municipality and its inhabitants, which poses a barrier for future endeavors in community engagement. Inadequate considerations of equity, again like those pervasive in North Carolina, have resulted in distributional injustices such as disproportionately-cited development projects which worsen flooding in poorer areas, as well as as reduced access to funding from the Federal Emergency Management Agency by nonwhite residents (Jurjonas et al., 2020).

Some of the above case studies feature coastal areas, others do not. There is an important distinction to be made between the two. Given the imminent threats sea level rise poses for those closest to the oceans, this can present unique challenges to low-lying regions, which in the U.S. also feature a disproportionately higher number of Black people than is found in the rest of the country (Jurjonas et al., 2020). Already noted was the flooding impacts on the North Carolina communities, featuring some of the area’s poorest residents, and such patterns have been documented in other studies as well. Hardy et al. (2017) also chronicle the historical complexities of racial coastal formation, and in their case study of a community on a small Georgia island describe how colorblind climate adaptation policy has prevented substantive engagement with community members on behalf of the local government.

### *The Role of Different Actors in Achieving Justice*

Climate justice, and climate change more broadly, are complex and all-encompassing facets of the world today, and will continue to be in the future. As such, there are an array of actors who have the ability to shape how these issues, and solutions, unfold. This is especially so in urban areas, where there are thus a multitude of opportunities for proximal, cross-organizational partnerships possible. This is where the ideas of horizontal and vertical collaboration become especially important. Vertical coordination refers to the interplay between authorities with differing levels of jurisdiction, whether that be local, regional, national, or international, usually pertaining to government but not always (van der Heijden, 2019). Horizontal collaboration offers a similar prospect, but instead concerns communication between organizations at the same level, particularly across municipal departments and agencies (van der Heijden, 2019). This same research details the importance of each in creating and maintaining sustainable climate justice policies and projects; vertical because of the ability for higher levels of government to enable action upon lower levels, and horizontal due to the nature of reinforcement and knowledge- and resource-sharing that such partnerships provide. Accordingly, a plethora of research has demonstrated the benefits of horizontal and vertical coordination, including between governments, and across community groups, nonprofits, and for-profit organizations, to name a few (Hughes, 2020; Jurjonas et al., 2020; Chu et al., 2015; Castán Broto and Bulkeley, 2013).

When examining climate justice specifically, policy is often a key and necessary component of adaptation, and thus the government stands to play a major role in how effective its legislation is in ensuring equitable resilience. Such equity is often fostered through community collaboration, and when executed properly demonstrates the promise and potential of local governmental action (Hughes, 2020; Kim et al., 2018). More commonly, however, this is not the result that is delivered. Recognition by those in power tends to be an underutilized component of policy-making, and when this is sacrificed so too is the possibility of meaningful government-community relationships (Hardy et al., 2017; McManus et al., 2014). This lack of awareness then manifests into a lack of procedural equity, and while some research has shown the capabilities of government to engage with community voices (Chu et al., 2015), others have revealed severe deficits in this regard (Jurjonas et al., 2020; Baker et al., 2019; Archer and Dodman, 2015).

Perhaps as a result of these failures of government in adequately attending to the needs of the community, nongovernmental organizations (NGOs) have become more active in filling the justice gaps that policy has missed. For instance, in the Castán Broto and Bulkeley (2013) survey of 100 global cities, only 66 percent of the experiments underway were government-led. Research by Bulkeley et al., (2014) concurred with this finding, documenting a shift of responsibility over climate justice initiatives from local governments to NGOs. While such studies indicate the space that exists for a variety of actors to play a part in ensuring just climate action, without regulation and support by the government such a system can quickly fall off-track (Rice et al., 2019). Due to the complex relationships that ensue with the advent of so many



organizations working within the same space, and because their intentions can be at odds with one another, this research aims to discern the impacts that each actor has, and to what extent they are beneficial or harmful.

Outside of the public arena, private actors can also be highly influential in policy making. There is an inherent tension between the motives of companies and environmental preservation, however with the power and money that such groups possess comes the ability to instill measurable change, which has been seen in some cities such as Quito (Chu et al., 2015) and Philadelphia (Bulkeley et al., 2014). Of course, corporations are rarely altruistic and always have the incentive to broaden their profit-margins, often at the expense of vulnerable communities and landscapes that have little political backing. Such behaviors can be common especially when companies are unregulated by government, or face little repercussions by it (Rice et al., 2019). This highlights the necessity in finding a balance between resource opportunity and human and environmental livelihoods when working with for-profit entities.

While corporations are often working within the confines of a bottom line, nonprofits tend to be primarily concerned with the cause itself. Consequently, they can provide a natural extension to climate justice work that is taking place in a given area. A prolific number of nonprofits in Detroit, for example, helped to inform the city's Climate Action and Sustainability Plans (Hughes, 2020). Nonprofits were also present in case studies conducted by Bulkeley et al. (2014), where they partnered with companies and developers on various climate adaptation projects. Public universities are another type of nonprofit that have the means of contributing to the field of climate justice, although in a more roundabout fashion. Quito utilized emerging academic research to help shape its planning and adaptation policies, another example of horizontal collaboration (Chu et al., 2015). More importantly, this scholarship itself was supported largely by community voices, as the authors worked with vulnerable residents to ascertain their perspectives on climate change throughout their studies (Chu et al., 2015). Such exemplars do not mean that justice in academia is always executed flawlessly, however. Contrast these practices with those seen in North Carolina, where a lack of local representation has created a self-reinforcing cycle of academic research and policy-making - leading to a persistent marginalization of those most impacted by climate change (Hardy et al., 2017) - and it is evident that procedural justice issues can permeate the sphere of higher education. In seeking to understand how climate justice intervention is being conducted in cities and by whom, the author will bear in mind the consequences - both good and bad - that it can have.

### *Baltimore and Seattle*

This research will focus on coastal cities, specifically case studies of Baltimore, Maryland and Seattle, Washington. With respect to climate justice, the literature on these cities has been scarce, though not inexistent. Baker et al. (2019) examined the distribution of green stormwater infrastructure in Baltimore and Portland, Oregon, the development of which has been increasing in response to more frequent severe weather and flooding. More pointedly, the authors assessed the relationship between the distribution of this infrastructure and a set of landscape and

socioeconomic variables (Baker et al., 2019). The study's findings were mixed, with some indications that green stormwater infrastructure was being implemented progressively in Baltimore, and more highly concentrated in areas with higher poverty levels, while other results suggested otherwise. An emphasis was placed, though, on the need for procedural equity in the city, as Baltimore's sustainability plan calls for community input, yet such provisions have thus far been largely ignored in practice (Baker et al., 2019).

While it was difficult to ascertain definitive patterns in Baltimore, more concrete conclusions have been able to be drawn in Seattle. In the 2019 research by Rice et al., the link between gentrification and the marketing of low-carbon lifestyles was scrutinized. What was seen was an inherent opposition between the two, where cities that brand themselves to be of a climate-friendly nature tend to attract wealthier, whiter people, which supplants existing residents and, ironically, often offsets any reduction in carbon emissions due to an increase in consumption by the new city occupants (Rice et al., 2019). This pattern of immigration by upper-class populations and subsequent displacement of established lower-income communities, called ecological gentrification, creates a tension between unregulated urban development and housing and climate justice which, the article says, are inextricably linked. A case study of Seattle neighborhoods following the construction of Amazon's headquarters in the city exhibited the same cycle, where the area's black population decreased while the median income and housing costs increased (Rice et al., 2019). Each of the above case studies helps to inform to some extent the presence of attention to climate justice in Baltimore and Seattle, but the absence of research specific to climate justice demonstrates the gap in understanding currently present in these two cities.

Finally, and at the crux of the fight for climate justice, are the individuals who are being most affected by the crisis. Equitable policies are seldom adopted on the government's own accord, and as such it is imperative that communities become advocates for themselves (Bulkeley et al., 2014). Bringing attention to the problem is the first step, and contributes to instilling recognition in those who hold office (Byskov et al., 2019). The next step requires a transfer of knowledge and perspectives from residents to those with the ability to change operations, whether it be policymakers or otherwise (Byskov et al., 2019; Hardy et al., 2017). There is much nuance in how to achieve the best results, but research has shown that community advocacy and inclusion propels climate justice in ways that few other forces can (Hughes, 2020; Chu et al., 2015). This research hopes to highlight the work of local activists in Baltimore and Seattle, and ideally underscore the potential of grassroots organizing and situating power with the people who stand to lose the most.

In the grand scheme of things, climate justice is an emerging field that offers an abundance of space to contribute to its formation. The gaps in information at present are also found in the two study sites of this research - Baltimore and Seattle. While little has been comprehensively assembled on these cities' current state of affairs, including the extent of climate justice action that is taking place and by whom, the goal of this article is to fill in these vacancies as much as possible, with the ultimate aim of discovering how cities populated by

people of different demographics can achieve the most equitable outcomes in the path toward climate resilience. Consequently, this paper seeks to answer the question: To what extent are the three forms of climate justice being incorporated into initiatives undertaken in Baltimore and Seattle, and do these differ according to the socioeconomic statuses of each city's residents?

#### **IV. Methods**

##### *Study Sites*

Baltimore and Seattle were chosen as the two cases by way of a thorough narrowing process. Given that climate justice is often not given top priority among the spectrum of local policy issues, it was crucial that there be at least a foundation of environmental justice work in the sites that were to be selected, otherwise cities could easily be chosen at random that have no relevant information to be studied. Crucial to this first round of winnowing was an environmental justice policy scan of U.S. cities, conducted through private university The New School in 2019. This report provided, in part, a comprehensive list of recent municipal efforts in 23 cities to address inequity in the environmental sector, and categorized laws as pertaining either to bans, land uses, proactive planning, public health, reviews, or environmental justice in general (Baptista et al., 2019). Knowing that each of these cities had at least a history of working with environmental justice concerns more broadly, two specifically were then selected to serve as cases for this research.

Integral to this study's research question is a consideration of how climate justice factors into the lives of those of different socioeconomic statuses. Consequently, the two cities chosen had to be similar on all accounts except for race and income. Social Explorer was used to input demographic data on the populations of all 23 cities examined in the Baptista et al. (2019) document, and cities were systematically eliminated if they did not have comparable measures to another one. It was also necessary to be cognizant of the locations of each of these cities, primarily whether they were coastal or not, as this could affect the salience of climate change for those who live there and result in a confounding factor. This culminated with four localities remaining: Baltimore, Portland, San Francisco, and Seattle. Controlling for the risk of sea level rise, using a tool developed by nonprofit Climate Central, as well as attempting to vary socioeconomic statuses to the extent possible led to the ultimate selection of Baltimore and Seattle, as shown in Table 1.

	Seattle	Baltimore
Total Population <sup>1</sup>	708,823	614,700
White-Only Population <sup>1</sup>	68%	30.5%
Median Household Income <sup>1</sup>	\$85,562	\$48,840
Public Transit Use <sup>1</sup>	22.2%	18.5%
Flood Risk <sup>2</sup>	51% risk of at least one flood over 4 ft. before 2050	45% risk of at least one flood over 6 ft. before 2050
Proportion of Those at Risk Who Are People of Color <sup>2</sup>	15%	18%

Table 1. Demographic and Climatic Information on Baltimore and Seattle

The table above depicts some of the considerations that were made when deciding which sites were to be used for this research. Risk factors for sea level rise, the races of those who are at risk, the use of public transit, and the total population sizes were all relatively similar to one another. The proportion of those who identified as White-only, as well as the median household income, were both distinct.

Baltimore and Seattle each are representative of most similar cases. As explained by Seawright and Gerring (2008), this is because all relevant variables have been controlled for as much as viable, except the independent variable being targeted, socioeconomic status (a proxy of race and income).

*Study Design*

In order to assess the extent to which climate justice has been incorporated into local initiatives and policies, the three aforementioned pillars - procedural justice, distributional justice, and recognition - will be utilized as benchmarks of comparison both within the cases and between them. This approach is the same as the one adopted by Hughes (2020) in her analysis of justice in Detroit and Cleveland. In addition to these dimensions, however, this research will also document the actors responsible for promoting climate justice in the cities. This is in an attempt to understand the balance of action present between government and NGOs, and to determine if there is a difference in such balance depending on the populations who live there.

Evidence supporting this research came from a variety of qualitative sources. On the policy side, these included legislation coming from the cities’ websites, minutes of meetings

---

<sup>1</sup> American Community Survey 2018 (Five year estimates)  
<sup>2</sup> See *your local sea level and coastal flood risk*. (n.d.). Climate Central.  
[https://riskfinder.climatecentral.org/place/seattle.wa.us?comparisonType=place&forecastType=NOAA2017\\_int\\_p50&level=4&unit=ft](https://riskfinder.climatecentral.org/place/seattle.wa.us?comparisonType=place&forecastType=NOAA2017_int_p50&level=4&unit=ft)

convened by local government, and policy databases such as Municode Online Library. In terms of NGO involvement, information on the websites of local advocacy groups was used, as were the websites of nonprofits and foundations operating in each of the cities. For both groups, newspaper articles supplemented information that was unable to be found from other sources.

This paper, in seeking to compare how climate justice action is being undertaken in Baltimore and Seattle, first provides a narrative of the activities in Baltimore, including the role that different actors played, with specific attention then devoted to each of the three climate justice facets. This is then followed by the findings in Seattle. A subsequent analysis comparing the two precedes a final discussion and conclusion of the cases overall.

## **V. Baltimore Results**

The climate justice arena in Baltimore is complex, and consists of both aspirational and tangible action. Overwhelmingly, the initiatives and activities that were found in Baltimore were most attributable to justice as recognition, however forms of both distributive and procedural justice were seen as well. These activities were additionally orchestrated by an array of actors and in different capacities.

### *Baltimore's Key Actors*

One notable presence in Baltimore is the headquarters of the NAACP Environmental and Climate Justice Program, which has three goals guiding the work that it does: reduce emissions, promote the use of clean energy and efficiency, and expand community capacity building (“NAACP,” n.d.) Another nationally recognized group, National Public Radio (NPR), has also turned its attention to Baltimore. Partnering with the University of Maryland, journalists wrote a series of articles dubbed the Code Red Project documenting the manifestation of climate change in the city, with a focus on the public health impact of temperature increases. The reporting team installed temperature and humidity sensors in several homes in the city, examined public health records, assessed the amount of tree canopy cover, and accounted for demographic data, which were only a few of the data sources used in total. Additionally, residents from different neighborhoods were interviewed about their experiences and daily lives, with a photographer documenting throughout (“Maryland,” 2019). Though while each of these actions are important, none have direct implications for policy change.

Along with these more well-established groups, citizens have become prominent in bringing awareness to climate justice as well. One such example is the Baltimore People’s Climate Movement. While they do not have a website, they are active on Facebook, where the organization describes itself as “an intersectional, decentralized climate justice coalition” (“Baltimore Peoples Climate Movement,” n.d.). In actuality the group is a chapter of a national group called simply the People’s Climate Movement, which operates on a platform of achieving racial, economic, and environmental equity (“Our Platform,” n.d.).

Moreover, an organization called the Baltimore Environmental Equity Partnership was founded in 2016 and comprises locally-based nonprofits, who work in partnership with the

Baltimore Office of Sustainability, to create programs that “improve community and environmental well-being and sustainability in neighborhoods of East and Southeast Baltimore (Osborne, 2021).

Municipal efforts to address climate justice have been common in Baltimore, and include a series of plans developed and/or adopted by various agencies in city government that have been designed to work with one another. One such document is the Disaster Preparedness and Planning Project (DP3), originally produced in 2013 by the Baltimore Department of Planning then later revised in 2018 (“Disaster Preparedness and Planning Project,” n.d.). The goal of the DP3 is to identify both climate change hazards and potential ways to remediate them, and the revised explicitly stated its intention to broach the matter from an equitable perspective (City of Baltimore, 2018).

There are a number of actions that the city has taken as part of its DP3. Not all are concerned with equity directly, though one, the Baltimore Food Policy Initiative, does make mention of ensuring equal food access, particularly to those in food deserts where quality food is very limited. This, the DP3 says, “will help to limit the detrimental health impacts caused by natural disasters (City of Baltimore, 2018). A plan similar in theme to the DP3, the Baltimore Sustainability Plan, was released in 2019, and acknowledges that the threats and consequences associated with climate change have the ability to disproportionately impact the poor. Specifically, it states that “Baltimore has taken steps to integrate equity into all-hazards mitigation and climate adaptation planning and implementation to support our most vulnerable citizens” (City of Baltimore, 2019, p. 77).

Prior to the publication of the two above plans, the 2017 Guide to Equitable Community-Driven Climate Preparedness Planning, a cross-organizational effort drafted for the Urban Sustainability Directors Network, described several recent initiatives that Baltimore has undertaken in the field (Yuen et al., 2017). The first, called Make a Kit, Build a Plan, Help Each Other, was a one-time event held in 2014 by the city’s Office of Sustainability where Baltimore residents could go to learn about what is necessary to create an effective climate disaster preparedness kit (“Disaster Preparedness and Planning,” n.d.). The Baltimore city website also states that participants were encouraged to interact with one another and learn about where vulnerable people lived.

Another method that Baltimore has used to address climate injustice is resilience hubs. In 2014, the City began to implement these services throughout the city, which are buildings that offer programming designed to increase community resilience prior to climate disasters and allocate resources following them (Rogerson and Narayan, 2020). Meant to be a partnership between local government and NGOs, these hubs also aim to foster connections across communities and between members, with a focus on shifting power to those who have been traditionally powerless and most at risk (Rogerson and Narayan, 2020).

The Baltimore Green Network is a third major climate justice approach devised by the City of Baltimore. Formerly the Growing Green Initiative, this project, despite a change in name, has maintained its same core objectives throughout, one of those being the greening of

“distressed neighborhoods” (“Baltimore Green Network,” n.d.). The program also created the Baltimore Green Network Plan, published in 2018, which similarly aimed to expand the number of green spaces in the city. One final initiative that the Guide to Equitable Community-Driven Climate Preparedness Planning highlights is Baltimore’s Adopt-a-Lot program, whereby residents and organizations can opt to cultivate a vacant lot in the city for free, and transform it into a space that can be utilized recreationally or merely as a way of improving greenery in the city (“Baltimore Green Network,” n.d.).

While the Baltimore Department of Planning was responsible for the DP3, its statewide equivalent is overseeing a series of programs meant to revitalize Baltimore through a number of means, however only one has connections to both climate and equity, and neither is explicit. Called the Sustainable Communities Designation, this plan aims “to more efficiently allocate and concentrate resources to support coordinated revitalization efforts” (“Sustainable Communities Designation,” 2016).

Some of the activity present in Baltimore though consists not of long-term planning, but instead of one-time events meant to bring awareness to the issues of climate change and justice. One example is a business and equity event co-hosted by the NAACP Environmental and Climate Justice Program and the University of Maryland Environmental Law Clinic in 2019, the intention being to draw focus to the disparities inherent in the climate movement and to outline the organization’s new Transformational Climate Adaptation Finance Initiative (“NAACP Launches Climate Initiative,” 2019). Another instance is a climate justice strike held in Baltimore in September of that same year (McGee, 2019). A final event to note is a competition that was held by the American Public Health Association in 2020 that called for student projects that addressed climate justice concerns, and one of the five winners hailed from Baltimore (“APHA,” 2020). Their project targeted the incorporation of equity in transportation, and highlighted the education and promotion of biking in particular. Each of these events aimed to call attention to local leaders on the need for climate policy, albeit through varying means.

### *Recognition*

The awareness that not everyone bears the brunt of climate change in the same way can be seen in multiple forms in Baltimore. Regarding the NAACP, while there is no evidence that this location has necessarily resulted in more projects featuring Baltimore, there are a couple underway that mention the city in particular. One is an initiative called Centering Equity in the Sustainable Building Sector, which started with a summit led by NAACP staff and “local Baltimore leaders” that aims to incorporate equity into new development (“Centering Equity,” n.d.). This, the NAACP says, is grounded “in the principles and practices of our environmental and climate justice platform” (“Centering Equity,” n.d.).

Similarly, the NAACP is also engaging a model called the Maryland and Baltimore State and Local Policy/Regulatory Reform Plan, which seeks to establish the city and state as an example of “equitable economic, energy, housing, building code, policies, and regulations” and will integrate these values into the area’s future development (“Centering Equity in the

Sustainable Building Sector - Rapid Shift,” 2018). Though this does not mention climate change directly, it is in the same vein as the first initiative, and focuses on sustainable building which has emerged as a means of countering the effects of climate change.

In terms of residential and nonprofit impacts, while it is unclear what exactly the Baltimore People’s Climate Movement has done, past Facebook events on their page indicate that the focus has been largely educational. The Baltimore Environmental Equity Partnership, though, is built upon a mission of achieving social justice in community development and human and environmental health, which is evidenced in their work, including projects such as community health assessments and trash reduction programs (Osborne, 2021).

Recognition efforts have also been made on a citywide scale. In 2018, the City of Baltimore filed a complaint against 26 fossil fuel companies, which included claims of nuisance, liability for failure to warn, and negligence, among others (Sokol et al., 2019). The complaint that Baltimore asserted was centered around concerns of public health, with one section stating that “Public health impacts of these climatological changes are likely to be disproportionately borne by communities made vulnerable by their geographic location, and by race and income disparities” (“Mayor,” 2018). Like the Code Red project, the lawsuit also described the impacts of heat stress, whose effects are felt significantly more in Baltimore than compared to the rest of the state.

Another example of recognition is found within Baltimore’s DP3. The first section of the plan documents the potential hazards facing the city as a result of climate change and the risk level and concern for each (“Disaster Preparedness and Planning Project,” 2018). This is followed by a general risk assessment for the city, with a vulnerability assessment according to each of the aforementioned disaster possibilities. This is for the city at large though, and does not hone in on specific areas.

The implementation actions in the plan largely neglected direct notions of equity, instead addressing what needs to be done to prepare for climate change mitigation and adaptation as a whole. However under the natural systems category, one action did cite the need to “increase the urban tree canopy and target areas with urban heat island impacts” (City of Baltimore, 2018, p. 22). The same document noted the Green Network Plan, and how it should be utilized “to increase green spaces in areas where there is available vacant land to reduce the heat island effect and provide other benefits” (City of Baltimore, 2018, p. 163).

While the current status of many of the DP3 goals could not be found, one record from 2018 documented the progress of each of them at the time. Regarding the above initiatives, the expansion of an urban tree canopy is in early stages of implementation, while the food policy initiative is in advanced stages (“Status,” 2018). It is still unclear where progress stands on the future climate resilience strategies.

Additionally, the Baltimore Sustainability Plan outlines strategies the City can take to achieve equity in resilience, including reviewing existing policies and devising new initiatives that have a focus on the most at-risk residents, devising ways of bolstering community resilience, and improving education of climate change and its associated impacts (City of Baltimore, 2019).



Each strategy is accompanied by actions that can be taken to obtain the objectives outlined, and the Plan describes measures that will indicate whether it has been successful or not.

Little could be found in terms of what progress has been made on these portions of the Plan. It has been reported that COVID-19 impacted some sustainability goals, but these pertained more to energy and the article did not go into detail into what the city had done prior to the pandemic (Deville, 2020). Another article consisted of an interview with the first sustainability officer of Baltimore County (not City), who did acknowledge that vulnerable populations would need to have more attention paid to them in terms of climate change mitigation and adaptation, however he failed to say what the region has done thus far in ensuring that this be addressed (Boteler, 2019).

In consideration of the initiatives that the City has undertaken, resilience hubs are built on a foundation of recognition, and the Baltimore Office of Sustainability climate resilience director acknowledged the importance of public health in climate readiness due to the lower adaptability of people of color and those who are low-income following disasters (Curran and Pottiger, n.d.). The program has not gone without criticism, however. One climate resilience officer at the Urban Sustainability Directors Network noted that while the current mission of the resilience hubs is necessary, equally important is an examination of ways to improve the everyday lives of the local residents (Curran and Pottiger, n.d.).

In addition, the website for the Green Network Initiative states that “By targeting resources towards areas of underinvestment, the Plan will help create new safe and healthy spaces, while supporting economic and workforce development” (“Baltimore Green Network Plan,” 2018). The broad theme is to improve blighted areas while also bettering stormwater management, with the plan centered around equity and making ample references to both its intention to contribute to climate control and also in ensuring a just distribution and implementation of the green network that it advocates (“GreenNetworkPlan,” 2018). Several aspects of the plan can be linked to climate justice, such as its promotion of “urban resiliency through land use equity” (“GreenNetworkPlan,” 2018). As of 2020 it is unclear what progress has been made since the unveiling of the plan, however prior to its publication the document did cite several pilot projects that were already underway, including park and trail expansions and the construction of corridors that connect green spaces (“GreenNetworkPlan,” 2018).

In contrast, the City’s Adopt-a-Lot program contains no direct mention of climate justice, however it does ameliorate stormwater runoff issues and provide relief from heat when trees are planted, and is accessible to people of all income levels due to the lack of a financial cost. Further, vacant lots tend to be concentrated in poorer neighborhoods, so making them into usable, attractive spaces provides a benefit to the area overall (Kennedy, 2019). One drawback is that, as previous research has described, such a program, while potentially helpful, moves the onus of responsibility from the government to the citizens.

Likewise, the most recent update to the Sustainable Communities initiative revealed that the only strategy in this plan when it was first created that could conceivably be tied to climate justice was the sixth one, which “targeted greening strategies in distressed areas” (“Baltimore

City Sustainable Community Area,” n.d.). This, however, was only in places near “strong housing markets” and was partially motivated by a desire to “promote market-based efforts” rather than climate change hazard mitigation (“Baltimore City Sustainable Community Area,” n.d.). An update to the program made in 2015 saw the inclusion of a new strategy that sought to reduce food deserts, though again this is more distantly related to climate justice and appears not to be fueled by concern over it (“Baltimore City Sustainable Community Area,” n.d.).

### *Distributional Justice*

\_\_\_\_\_ When assessing what forms of distributional justice are present in Baltimore, it was evident that some fell in line more with a recognitional awareness, and did not necessarily mandate actual equity in the allocation of resources and concentration of climate hazards. Such an example is the Code Red journalism campaign discussed previously.

Other evidence includes goals and aspirations that call for distributive justice (though not always using those exact words), however are not enforced by any legislative mechanisms. Each of these can be found under recognition as well, as they encompass both the acknowledgement of disparities in climate burdens as well as strategies for equalizing these burdens. These can be seen in the 2019 Baltimore Sustainability Plan which sought to create programs that target the most vulnerable residents (City of Baltimore, 2019). Three strategies to obtain this goal are described, accompanied by actions that can be taken including the development of “‘community resiliency plans’ in areas where risks and economic and health vulnerabilities are highest” and continuing to “support the growth of ‘community resiliency hubs’ in disinvested, high-impact areas” (City of Baltimore, 2019, p. 79). Parallel rhetoric was found in Baltimore’s DP3, where the Department of Planning engaged a consultant to “help determine resource-specific and neighborhood-specific adaptation strategies for the historic neighborhoods and areas most vulnerable to climate hazards” (City of Baltimore, 2018, p. 201). Likewise, the Sustainable Communities Designation program aimed to expand green spaces in historically neglected areas, though again this was not fueled by a climate incentive (“Baltimore City Sustainable Community Area,” n.d.).

Visible action that has actually taken place in Baltimore is largely limited to those actions which were featured in the Guide to Equitable Community-Driven Climate Preparedness Planning. One of the most prominent has been the development of resilience hubs, which actively seek out neighborhoods most in need and allocate resources accordingly (Rogerson and Narayan, 2020). The city now has six, with planning for three more underway. The Baltimore Green Network Plan, too, while still largely aspirational, has been responsible for several pilot projects broadening the connectivity of the city’s green spaces, and serves as a compass for any future related work (“GreenNetworkPlan,” 2018).

Finally, the only legal action pertaining to distributive justice which has thus far been seen in Baltimore is the city’s 2018 lawsuit against BP P.L.C. et al., which alleged not only that these fossil fuel companies were knowingly and negligently emitting pollutants, but that these gases were disproportionately harming residents along racial and economic lines (“Mayor,”

2018). This lawsuit represents a more retroactive approach to this form of justice, and does not necessarily equate to future adjustments. As of November of 2020 the case had yet to be argued, as the defendants are pushing to have the case tried in federal court as opposed to the state court in which it was filed (Savage, 2020).

### *Procedural Justice*

\_\_\_\_\_ Procedural justice was evident to some degree throughout the city, and again it was the various plans and visions that have been devised in recent years that encompassed much of what was seen. The Baltimore Green Network Plan made a demonstrable effort to engage all voices throughout its creation; the city’s Department of Planning held numerous workshops and brainstorming sessions with community members throughout the development process to gauge what they would like to see materialize (“GreenNetworkPlan,” 2018).

Similarly, the revised version of the Baltimore DP3 assumed an equity lens that had initially been lacking, and consequently the planners made community engagement integral in order to determine the most effective and meaningful policy proposals (“Disaster Preparedness and Planning Project,” n.d.). The emphasis on public outreach in the future was also common in the DP3, including recommendations to “broaden public outreach and engagement efforts to include greater representation from all Baltimore neighborhoods and communities in planning efforts” (City of Baltimore, 2018, p. 192) and “determine a strategy for incorporating information on vulnerable populations collected during the development of this plan” (City of Baltimore, 2018, p. 193). Yet another stated the need to “use public feedback to identify vulnerable populations and specify vulnerable populations to the greatest extent possible (City of Baltimore, 2018, p. 196). As with each of these plans though, their contents are not legally binding.

In terms of projects that have manifested in Baltimore with a procedural justice component, only one could be identified, and this was the creation and expansion of resilience hubs. One key feature of these services is to situate power with community members, and as the project developed they were able to assume a more active role. In 2019, the Baltimore Office of Sustainability worked to expand services at its six existing hubs and make plans for the creation of three new ones. In doing so, demographic data was used to target areas not being served by hubs already, and workshops were held to gather input from community members in these areas as to ways that the hubs could improve (Rogerson and Narayan, 2020). The Baltimore Office of Sustainability climate resilience director also began organizing regular meetings with leaders of the city’s resilience hubs, who are described as “grassroots resilience leader(s)” (Curran and Pottiger, n.d.).

Aside from municipal-based programs, the Baltimore Environmental Equity Partnership has also exemplified procedural equity in its climate justice work, including projects that expand the urban tree canopy and improve green stormwater infrastructure in neighborhoods that have historically lacked such amenities (Osborne, 2021). These initiatives were “community-determined” and aim to address the needs that residents perceive to be the highest priority.

## **VI. Seattle Results**

Similar to what was seen in Baltimore, the climate justice movement in Seattle is also multi-faceted, both in terms of what actions are being taken and who they are being taken by. Recognition is again the most prevalent form of justice seen, however there are considerable examples of procedural and distributional justice as well.

### *Seattle's Key Actors*

Nonprofit organizations dedicated to climate justice are relatively common in Seattle, and have many intersecting goals and strategies. 350 Seattle, for instance, is a nonprofit based in the city which works to establish climate justice “by organizing people to make deep system change” (350 Seattle, 2020). Got Green is another Seattle-based nonprofit focused on ensuring equity on all fronts, whether it be environmental, racial, or economic (Got Green, 2016). Such a mission is also evident in the nonprofit Puget Sound Sage, an advocacy group that has “been on the forefront of driving some of the nation’s most dynamic policies for climate, economic, and racial justice” since 2007 (Puget Sound Sage, n.d.). The final nonprofit found to be operating in the area is the Seattle Foundation, a group which builds community partnerships and raises funds to distribute to projects and strategies aimed at reducing the wealth disparity in Seattle with special attention paid to the disproportionate effects of climate change across populations (Seattle Foundation, n.d.). Through grants to organizations that capture the intent of their mission, the Seattle Foundation has awarded over one and a half million dollars in 2019 and 2020 (Foster and List, 2020).

Coalitions and networks of nonprofits have also emerged as a means of harnessing even more levying power and making larger impacts than perhaps otherwise possible. Front and Centered is a coalition of environmental and climate justice organizations which aims to eliminate the disparities in climate change impacts across populations, while giving power to those who are most affected (Front and Centered, n.d.). The organization addresses climate concerns statewide but is based in Seattle, and much of their work is connected at least tangentially to the city. Likewise, the Climate Alliance for Jobs and Clean Energy also operates out of Seattle while serving Washington state as a whole, and “is a coalition of environmental advocates, labor unions, health professionals, businesses, faith communities, and communities of color...committed to building a resilient climate justice movement” (Climate Alliance for Jobs and Clean Energy, n.d.).

Another conglomerate of actors with an emphasis on establishing partnerships is the South Seattle Climate Action Network, an organization seeking to achieve climate justice through community capacity-building (South Seattle Climate Action Network, n.d.). Such efforts are also seen concentrated in the Duwamish Valley, a region largely seated in Seattle and which consists of a predominantly indigenous population (“Duwamish Valley,” 2021). With a history of environmental injustices that have been imposed upon it, the Duwamish River Cleanup Coalition formed. The group has centered climate justice in their work, and created a platform of establishing a healthy environment, maintaining peace, growing the movement, and expanding community input in policy making (“Climate,” n.d.). Lastly, a recent addition to the growing

number of networks is the Climate Justice for Black Lives collective, which was established in 2020 as a means of connecting climate justice to the ongoing Black Lives Matter movement (Kiefer, 2020).

Aside from traditional nonprofit agencies, higher education in the area has also assumed a role in the climate justice movement. Seattle University has a Center for Environmental Justice and Sustainability that discusses climate justice, and affiliates of the University of Washington, located in Seattle, have contributed to the effort in several ways. One group of students at the school produced research documenting the climate justice movement in Seattle in an effort to “introduce UW students and members of the Seattle community” to the topic and events that have unfolded in relation to it (Class, n.d.). Another group - the Union of Academic Student Employees and Postdocs at the University of Washington - has a dedicated Climate Justice Working Group which advocates for equitable policies alongside other related organizations (“UAW Local,” n.d.). Finally, in a cross-collaborative effort with local organizations including Front and Centered and the Seattle Foundation, the University of Washington produced a report entitled “An Unfair Share: Exploring the Disproportionate Risks from Climate Change Facing Washington State Communities” (UW Climate Impacts Group et al., 2018).

Substantial contributions have further been made by local government in Seattle (and outside of it). King County, which includes Seattle, established a Climate Equity Community Task Force in 2019 comprised of a diverse “group of leaders who represent frontline communities and organizations” to bring “multi-ethnic and multi-racial cross-sector experiences to climate-related community building” (“Leading with Equity,” 2020). Moreover, in formulating their contributions to the Strategic Climate Action Plan, the Task Force pulled from several resources, including a report called the “Equity and Social Justice Strategic Plan for King County” designed for 2016-2022, and in part described ways that the County could further action in climate justice (“Equity and Social Justice Strategic Plan,” n.d.). King County also created an Equity Cabinet within the Office of Equity and Social Justice, which is meant to “partner with and advise the County on how to ensure that policies, practices, and outcomes align with its intentions to lead with equity, social, and racial justice,” and although climate is not mentioned, it will presumably fall under the purview of this body’s responsibilities (“Equity and Social Justice,” 2020).

Turning exclusively toward the City of Seattle, the government has a dedicated Climate Justice Director who helped to create an Equity and Environment Agenda for the city. This helped to form the Equity and Environment Initiative that Seattle implemented in 2015, along with an Environmental Justice Committee and Fund (“Equity and Environment Initiative,” n.d.). Since its launch, the leader of the Initiative has said that it laid the groundwork for further equitable climate action by the City, and has also served as a model nationwide for the climate justice movement (Giving Compass, 2019). As a means of generating revenue in its efforts toward achieving climate justice, the City also passed a payroll tax called Jumpstart Seattle, intended to raise money to fund “affordable housing, small business support, and the [local] Green New Deal” (McCoy, 2020). The tax is supported by groups such as Got Green and Puget

Sound Sage due to its progressivity, and though it took effect beginning in January 2021, it is currently facing a lawsuit by the Seattle Metropolitan Chamber of Commerce for allegedly violating Washington's constitution (Roberts, 2020).

Furthermore, the City of Seattle Office of Sustainability and Environment has created a series of programs targeted towards environmental justice, through funding opportunities, capacity building, planning and program development, and improving health outcomes ("Environmental Justice," 2021). Many of these emerged out of the work done on the Equity and Environment Agenda. Government-funded projects highlighted on the City's website include the Environmental Justice Fund which awarded approximately \$600,000 amongst 16 projects between 2019 and 2020 (Brown, 2020; WysockS, 2018), the King Conservation District Grants whose criteria were recently "updated to reflect Seattle's commitment to environment justice" ("Environmental Justice," 2021), and the Duwamish River Opportunity Fund which seeks initiatives that reduce the environmental burdens imposed upon the many indigenous and low-income residents of the Duwamish River Valley ("Environmental Justice," 2021).

Regarding capacity building, the City established the creation of an Environmental Justice Committee, a leadership program called Leaders in Equity, Environment, and Facilitation, and the Duwamish Valley Affordable Housing Coalition, each of which is led by, and gives a platform for, minority voices and those most affected by climate change to influence the discussion and potential solutions for achieving equity ("Environmental Justice," 2021). The Duwamish Valley Program and Action Plan, which address inequity in the region, the City's 2016 canopy cover assessment and subsequent community engagement pertaining to urban forestry, and the 2017 Safe Routes to School Racial Equity Analysis, executed to ascertain the barriers to walking and biking to school for students of color, are all planning and development initiatives recently employed by Seattle ("Environmental Justice," 2021). Finally, a cross-collaborative effort between multiple Seattle government agencies, the American Lung Association, and the Duwamish River Cleanup Coalition worked together to instill methods of reducing asthma rates in the Duwamish River Valley, largely by way of more effective weatherization and cleaning techniques ("Environmental Justice," 2021). Each of these programs, though often not obviously connected to climate, still make progress in equalizing the playing field when it comes to who bears the brunt of climate change the most.

### *Recognition*

The concept of recognition as justice is almost inherent to all of the work that has been done in the climate justice movement, as the mere act of instituting a new program or staging a protest is almost always accompanied by an acknowledgement of the injustice present. So while each of the aforementioned actions taken at least implicitly constitutes recognition in some form, some explicitly stated the problems present in Seattle and the need to address them.

Got Green and Puget Sound Sage, for example, co-wrote a report entitled "Our People, Our Planet, Our Future" in 2016, which sought to compile best strategies for mitigating and adapting to the climate crisis across populations (Got Green and Puget Sound Sage, 2016). Front

and Centered, too, authored another document called “Accelerating a Just Transition in Washington State: Climate Justice Strategies from the Frontlines” with the goal of connecting climate to the lack of affordable housing in Seattle (Front and Centered, 2020). The group also hosts periodic ‘Conversations on Climate Justice’ with experts and activists alike, and a number addressed climate equity in Seattle specifically, though not all (Sopariwala, 2017). The Seattle Foundation likewise has helped to distribute literature, and financial help, in the pursuit of climate justice.

Much of the climate justice action taken by universities in Seattle is also characterized primarily by recognitional justice, such as the literature that Seattle University has posted on its website, or the public support for the Ecosocialism Caucus of the Seattle Democratic Socialists offered by the University of Washington’s Union of Academic Student Employees and Postdocs (“UAW Local,” n.d.). Such is the case as well with the book written by students at the University of Washington on climate justice, which details the historical and present-day implications of racial disparities in the city, the role that energy systems play in climate change, the link between housing and climate, the ecology of the area and how it has changed over time, and organizing efforts that have taken place (“Class,” n.d.). Recognitional goals are also found in the ‘Unfair Share’ report co-produced by the university that lays out the ways in which identity contributes to the level of risk to climate change endured, and also cites the City of Seattle’s Equity and Environment Initiative and Agenda as a potential nationwide model for creating community-driven climate resilience (UW Climate Impacts Group et al., 2018). Though not inherently recognition on their own since they do not constitute a mechanism for enacting policy, each of these actions display the ideals of recognitional justice.

Aside from the ongoing work being done by local organizations, there have also been a number of isolated events advocating for climate justice that have occurred in Seattle that could not be prescribed to any one particular category. These include marches and rallies hosted by groups such as Climate Justice for Black Lives, The Action Network, and Amazon Employees for Climate Justice (“Climate Justice for Black Lives,” 2020; Colvin, 2020; “Seattle Climate Walkout,” 2019). Even more common are talks and lectures meant to educate the public on climate justice, and these have been sponsored by a range of organizations including the Sunrise Movement, Leadership Tomorrow, Protec17, Fridays for Future, 350 Seattle, and Seattle CityClub (“Virtual Civic,” 2020; Wetter, 2020; “Black Lives,” 2019; “Challenge Night,” 2019; Girard, 2019). A documentary was also filmed in 2016 featuring some of the leaders in the environmental and climate justice movements in Seattle and the Northwest, and its premiere in Seattle was followed by a discussion of the messages it portrayed (Larson, 2016).

King County government exhibited recognition in the Climate Equity Community Task Force it created, which was instrumental in developing the climate equity and community action portions of the 2020 Strategic Climate Action Plan for the County. In the section entitled “Preparing for Climate Change,” there is an emphasis on the need to incorporate climate impacts in day-to-day government operations, a clear acknowledgement of a previous failure to do so (King County Climate Action Team, 2020). The County also solicited another report called the

“Equity and Social Justice Strategic Plan for King County,” designed to be a five-year strategy beginning in 2016. One of the actions to be taken during this time frame was accounting for equity in the development of the jurisdiction’s environment, its policies, and its institutions (Equity and Social Justice Strategic Plan, n.d.). There is a website devoted to reporting the progress of this plan, however it was last updated in 2018 and even at the time there were no recent statuses on the climate equity sections (“Strategy Areas,” 2018).

This theme of recognition transcends to the level of the City of Seattle, where it is found permeated in the Equity and Environment Initiative, specifically the Agenda, which is upfront about the pitfalls of the City in the past to adequately address climate (“Equity and Environment Agenda,” n.d.). Additionally, the Office of Sustainability and Environment’s justice-focused programs provide an exclaimer acknowledging their necessity in combating past wrongs perpetuated by the government (“Environmental Justice,” 2021).

As for the City of Seattle Municipal Code, as previously stated recognition is all but absent from its content. When examining the City of Seattle’s Municipal Code, however, few ordinances explicitly state a discrepancy in implementation amongst race and income levels of Seattle’s residents. The most direct acknowledgement that was made was under the Environmental Policies and Procedures section of the Code, when in regards to the need for obtaining an Environmental Impact Statement in new development and projects, it stated that “In determining an impact’s significance, the responsible office shall take into account that: the same proposal may have a significant adverse impact in one location but not in another location” (“Chapter 25.05,” n.d.). Still, no distinction is made as to why one area may be more affected than another, and in fact under the Code’s subsection of Environmental Impact Statement, it admits that the term ‘socioeconomic’ is not used in these regulations because it “does not have a uniform meaning,” and evidently no effort has been made to establish one (“Chapter 25.05,” n.d.). Further, there is no requirement that social policies or housing values be considered in the drafting of an Environmental Impact Statement. The Code does address the need to preserve affordable housing costs as a means of maintaining a “healthful environment,” though again this is not linked to climate specifically (“Chapter 25.05,” n.d.).

### *Distributional Justice*

As was the case with Baltimore, much of the distributional justice seen in Seattle consisted of groups who lobbied for it, or methods which did not guarantee justice but sought it out. This was common with advocacy groups, such as 350 Seattle. The group advocates at the local and state levels; for example lobbying the City for a Solidarity Budget as part of Seattle’s Green New Deal which would divest from police and polluters and invest in community welfare, and similarly lobbying at the state, where they focus on trade policy, civic action, decarbonization, and the federal Green New Deal (“Solutions,” 2020). Similar lobbying is also being conducted by Puget Sound Sage, Front and Centered, the Duwamish River Cleanup Coalition, the Seattle Foundation, and The Climate Alliance for Jobs and Clean Energy in their



community research and advocacy, and the Student Union at the University of Washington in its promotion of the Seattle Green New Deal.

While the effects of advocacy work can at times be ambiguous, Got Green's climate justice committee was able to help pass a 2016 resolution by the City of Seattle to "incorporate strategies to advance green careers for people of color and other marginalized or under-represented groups" ("Seattle City Council," 2016). Likewise, the South Seattle Climate Action Network continuously lobbied for the passage of the Healthy Environment for All, or HEAL, Act, which aimed to eliminate the disparities in environmentally-induced health issues found not just in Seattle, but Washington broadly ("Legislative Advocacy," n.d.). Only part of the Act was passed when it was introduced in 2019, but one outcome was the establishment of an Environmental Justice Task Force (Russillo, 2021). This group subsequently devised a set of recommendations for incorporating environmental justice measures statewide, and these have been included in the new version of the HEAL Act that was reintroduced in January of 2020 and whose fate remains unclear (Russillo, 2021).

Distributional justice was abundantly evident in King County's 2020 Strategic Action Plan, as it aimed to "prioritize health and equity in climate preparedness actions" and "invest in public outreach, engagement, and technical assistance" (King County Climate Action Team, 2020, p. 241). According to the report, the strategies that King County has employed to bridge the climate-equity gap "are contributing to improved climate equity and health outcomes and increased resilience in communities disproportionately affected by climate change" (King County Climate Action Team, 2020, p. 271). These strategies include targeted reduction of urban heat islands, dissemination of climate-related knowledge that is accessible to everyone, increased focus on ensuring all communities retain Metro access during poor weather conditions, and an expansion of bus stops that can be utilized during extreme weather events, specifically in areas where these events are most pronounced. In the 2016-2022 Equity and Social Justice Strategic Plan for King County, attention to distributional justice was also seen in the desire to expand energy efficiency investments to include all residents, as well as concentrate resources pertaining to climate preparedness in the most vulnerable areas (Equity and Social Justice Strategic Plan, n.d.), though again it remains unclear what progress has been made in this regard.

The City of Seattle too has exhibited considerations of distributive justice, seen in its Environmental Justice, Duwamish River Opportunity, and King Conservation District Grants and Funds, as well as the Jumpstart Seattle payroll tax, whose revenues are to be invested in "affordable housing, small business support, and the [local] Green New Deal" (McCoy, 2020). Burdens and benefits allocation is also a theme of the canopy cover assessment that was conducted, as well as the asthma rates assessment of Duwamish River Valley.

### *Procedural Justice*

Evidence of procedural justice aspirations was readily found in many of Seattle's nonprofits. 350 Seattle, for instance, frequently employs nonviolent direct action in their work, which consists of demonstrations that disrupt the status quo. In partnership with multiple

Indigenous-led activist groups in the city, 350 Seattle has helped to organize several protests at Chase Bank locations, which grants loans to tar sands pipelines (“Nonviolent Direct Action,” 2019). These protests eventually spread nationwide, with the help of various other groups within an expansive environmental justice coalition.

Both Front and Centered and Got Green are operated by low-income and people of color, and Got Green’s “Our People, Our Planet, Our Future” report consisted of the results of over 200 interviews of Seattle residents and advocacy groups to formulate ideal outcomes for the city’s climate planning (Got Green and Puget Sound Sage, 2016). Puget Sound Sage similarly engages in community-based participatory research and coalition organizing. The Seattle Foundation’s focus on climate justice led to the production of a Climate Justice Impact Strategy “to ensure that communities of color and low-income communities are leading and shaping efforts to reduce the disproportionate effects of climate change that they experience” (Seattle Foundation, n.d.), and to put those most impacted by injustice at the forefront of the movement to correct it (“Climate Justice Impact Strategy,” n.d.).

Coalitions analogously promote procedural justice. The Climate Alliance for Jobs and Clean Energy coalition emphasises a “centering the voices and decision making power of communities of color...and communities hit hardest by pollution and climate change” (Climate Alliance for Jobs and Clean Energy, n.d.), while the Duwamish River Cleanup Coalition is led by the indigenous people who populate the region. While each of these NGOs is necessary in spreading awareness of the importance of widespread inclusion in policy, the effect that they have on policy making itself prevents their classification as strictly that of procedural justice.

Government, too, was mindful of procedural justice, seen again in the 2020 Strategic Climate Action Plan for King County, which was actually an update from a former version that lacked input from a diverse array of stakeholders, including those residents on the “frontlines” of climate change (King County Climate Action Team, 2020). The other primary document produced by the county, the Equity and Social Justice Strategic Plan, also outlined actions for increasing representation in climate governance and decision-making (Equity and Social Justice Strategic Plan, n.d.). Further, the Equity Cabinet that was created solicited people of color in particular to apply for a position on it (“Equity and Social Justice,” 2020). The City of Seattle’s Environmental Justice Committee, Leaders in Equity, Environment, and Facilitation program, and Duwamish Valley Affordable Housing Coalition likewise contain elements of procedural justice within them.

## **VII. Analysis**

### *Recognition*

Though recognition has tended to be neglected in climate justice discourse, particularly in policy-making (Hardy et al., 2017; McManus et al., 2014), by nature it is perhaps the easiest of the justice pillars to adopt, which is likely the reason why it was the most prevalent pillar in both Baltimore and Seattle. While distributional and procedural justice demand action, recognition necessitates mere acknowledgement of the issue at hand, as well as its contributing causes.

Much of the recognition found in both cities can be attributed to plans and strategies, such as the DP3 in Baltimore and the City's sustainability plan, or Seattle's Equity and Environment Agenda. These documents emphasized the need to re-assess existing policies and operations, and targeted those most disadvantaged. Such a mandate follows the ideal of recognition as justice as described by Hughes (2020), which involves an examination of a city's current practices.

Indeed, the bulk of Baltimore's recognitional efforts were found within actions taken by local government. What is interesting to note is that this is contrary to what is typical of policy-makers, as described by Hardy et al. (2017), McManus et al. (2014), and Jurjonas et al. (2020). It seems to often be the case that policies are implemented on an equally-applicable basis, rather than targeting particular populations. In Baltimore however, there is evidence that the City is cognizant of equity over equality.

By contrast, recognitional pursuits in Seattle largely stems from nonprofits rather than the municipality, though this is not classically recognitional justice as it was frequently not tied to policy. County government was also fairly active in its establishment of a task force, however, along with multiple reports on the issue. Such a phenomenon is more in accordance with the existing literature, and is also seemingly characteristic of Seattle's inattention to justice when developing new policies, such as the gentrification documented by Rice et al. (2019).

An exception that was made in categorizing recognition was to include implicit recognition as well as explicit. Some programs, such as Baltimore's Adopt-a-Lot initiative, did not directly mention climate justice as a motivating factor for their creation, but for all intents and purposes, acted in a way that brought about the ideals of it (ie. a focus on marginalized communities and methods to reduce climate change impacts). Climate justice is still a field that is not universally known, and consequently accounting for only those actions that directly cite it was not totally pursuant to the established definition of recognitional justice.

### *Distributional Justice*

\_\_\_\_\_ A common theme evident in the distributional justice initiatives that were taken in Baltimore and Seattle was their lack of enforceability. While there were a number of plans in both cities that called for equitable distribution in their implementation, none of them actually require that it, or the plans themselves, be adhered to. While much of the current literature has examined the ways in which *existing* environmental benefits and burdens have been dispersed in a given area, what is lesser known is how closely not-yet-tangible strategies are followed. Though, in providing recommendations for the newest edition of the IPCC report, Byskov et al. (2019) did emphasize the importance of distributional considerations in climate adaptation planning.

While lobbying and advocacy are the most prevalent forms of distributive justice seen, they are not the only ones. Perhaps the most aggressive example seen in each city was the lawsuit against fossil fuel companies in Baltimore, and the large-company payroll tax in Seattle. The former assumes more of a retroactive role in achieving justice, while the latter attempts to

incorporate it into the city's future. Though it is currently still in its infancy, the execution of the payroll tax is poised to be significant for Seattle. It bears remembering though that even well-intentioned methods of justice distributions can ultimately harm the communities that these tactics are trying to reconcile with, as demonstrated by Byskov et al. (2019) and McManus et al. (2014).

Important to note is how distributional justice in both cities was particularly found in governmental action, though especially so in Baltimore where there was a higher degree of local government involvement overall compared to Seattle, which had more nonprofits found to be operating in the area. This makes sense, since it is policy-making which has the potential to be the most impactful and substantive in permanently grappling with injustices, a theme which has been extensively detailed in climate justice discourse (Hughes, 2020; Byskov et al., 2019; Hardy et al., 2017; Kim et al., 2018).

Looking at Baltimore and Seattle broadly, the relative lack of distributive justice is not exactly surprising. Given the mishandlings of it in the aforementioned studies, as well as its neglect completely in other research such as that by Jurjonas et al. (2020), environmental rights and burdens are all too commonly concentrated amongst specific areas with inadequate policy to address these disparities. The extent of literature on distributive justice (Archer and Dodman, 2015; Bulkeley et al., 2014) would suggest otherwise, yet such theory has largely yet to manifest in reality.

### *Procedural Justice*

Similar to distributive justice, procedural justice in Baltimore was mostly concentrated in governmental action, though again the majority was in planning and not tangible action. Though the importance of incorporating residents into the development of climate justice programs cannot be understated (Baker et al., 2019; Jurjonas et al., 2020; McManus et al., 2014; Rice et al., 2019; Byskov et al., 2019), equally crucial is the actual implementation of these programs. Aside from research-based outreach, few actual programs have materialized thus far. Should the strategies that the city has devised come to fruition, they will be marked with a significant community input component, but until that happens only half of the equation will be completed.

The same was true in Seattle to a certain extent; much of the work done has pertained to ascertaining what constituents want in the future, while not yet delivering on those requests. Distinctly though, a much larger share of this work was performed by nonprofits in Seattle as compared to Baltimore, as there seems to be an inverse of the proportion of action taken by government and NGOs in each city. This hails back to the interplay of horizontal and vertical coordination described by van der Heijden (2019), and exemplified in myriad case studies (Castán Broto and Bulkeley, 2020; Hughes, 2020; Jurjonas et al., 2020; Chu et al., 2015). What is less clear, however, is what explains this disparate role of actors, and if it relates to the demographics of the cities themselves, the resources (human and financial) available to the municipal government, or some other factor.

\_\_\_\_\_ There have been no shortage of studies that demonstrate a lack of procedural justice, and how this often translates into a subsequent absence of distributional justice (Byskov et al., 2019, McManus et al., 2014). While Baltimore and Seattle have each exhibited considerations of procedural justice, the lack of follow through to an equitable distribution of programs is where the danger arises. While government can talk endlessly about what they *will* do for a city, only when they actually execute such plans is there potential for climate justice to actually take root (Baker et al., 2019; Jurjonas et al, 2020; McManus et al., 2014; Rice et al., 2019).

### *Comparing Baltimore and Seattle*

When comparing Baltimore and Seattle head-to-head, it becomes evident that in terms of the amount of climate justice activity present in each city, the two are relatively comparable. This is true too between each form of justice. Recognition is most prevalent, followed closely by similar amounts of distributional and procedural justice. Moreover, analogous examples of each of these forms are present in Baltimore and Seattle, such as strategic action plans and educational outreach, though there are notable divergences in action between the two as well.

The extent of the similarities between Baltimore and Seattle stops, however, once you start examining who is responsible for the action seen. Baltimore, the case which was selected due to its lower income levels and high Black population, has many fewer NGOs operating in the climate justice realm than Seattle, a wealthier, Whiter, city. Common sense would initially deem such a finding paradoxical. Though it might be reasonable to assume that justice-oriented NGOs would be more prevalent in areas with higher poverty, the scientific evidence does not fully support this claim. The limited number of systematic investigations into this belief have largely uncovered exactly the opposite: there are often *not* more NGOs in low-income areas (Galway et al., 2012; Fruttero and Gauri, 2005). This was true specifically in case studies of Bangladesh (Fruttero and Gauri, 2005) and India (Jammulamadaka and Varman, 2010), both of which found that indicators of need, including infant mortality rate, per-capita landholding, literacy rate, and poverty gap, were not associated with an increase in the NGO activity present. One caveat to note with these studies is that they analyzed cases on a national level, and in developing countries. It is unknown to what degree such divergences from this research impact theory as a whole, however the results that are known all contradict the general hypothesis that NGOs are sited according to need, and lend no support to poverty being a significant factor in this decision.

One potential explanation for these results is the probable weight that donor influence carries in NGO decision-making. Though NGOs are meant to be independent entities, much of their funding comes from private actors, and as such recent literature has suggested that this relationship could affect NGO behavior (Koch et al., 2009; Koch and Rueben, 2008; Fruttero and Gauri, 2005). There is incentive to minimize risk in going to a location that is “easier” to help, and therefore reducing the possibility of failure (Galway et al., 2012; Koch et al., 2009; Fruttero and Gauri, 2005). Such a pattern can also explain the concentration of multiple NGOs in one area while others lack them completely; once the groundwork has been laid in one city (such as establishing partnerships), there are fewer challenges to overcome for subsequent NGOs and less

obvious attributions of guilt should they not accomplish their aims (Koch et al., 2009, Fruttero and Gauri, 2005). While there has been limited research to the contrary, one article by Nancy and Yontcheva did come to opposing conclusions. They found that donors have minimal influence on the actions of NGOs, including where to site and direct their funding (Nancy and Yontcheva, 2006). This was based on a study of Europe though, and analyzed aid allocation rather than NGO location. It is unclear to what extent of a difference these disparities make however, and as of now there is no empirical evidence to address this question.

Taking into account all of the previous research that has been conducted on the rationale for NGO placement, it appears that the results of this investigation largely follow what has already been seen. In contrast to initial intuition, it seems commonplace that nonprofits are found in places with higher per-capita income, rather than lower. While there may be a focus on vulnerable populations within those wealthier areas, they may not always be the motivating factors drawing an NGO to that place in particular. Access to resources and fear of failure should not be discounted in understanding why more nonprofits were found in Seattle compared to Baltimore, and may help explain the interplay between socioeconomic status and presence (or lack thereof) of NGOs.

## **VIII. Conclusion**

The aim of this research was to assess the extent of climate justice action that has taken place in two urban areas - Baltimore and Seattle - and to determine if behaviors differ based upon each city's residents. Results indicate that climate inequities have not gone unnoticed in these places, however thus far much of what has been done in both Baltimore and Seattle is aspirational, and tangible efforts that have been made are not always tied directly to the intersection of social justice issues and climate change. While it is important that these actions are present, the reasoning behind them should also be transparent, so as to emphasize the need for them to become more widespread.

Another, perhaps more significant, outcome of this investigation is the discovery that though the extent of each form of justice in Baltimore and Seattle was relatively equivalent, the same was not true of the actors responsible for these actions. Government was found to be the largest contributor to climate justice discord in Baltimore, while NGOs were more scarce. The opposite was uncovered in Seattle. Residents were active in both cities, though in different capacities. Baltimore saw people more involved in participatory behaviors, working in tandem with city government to express what they perceived as the most desirable outcomes in addressing climate change impacts. In Seattle, constituents took part largely through nonprofit work and lobbying. Exceptions were found in both cities, however it seems mostly to be the case that inverse results were discovered in each city.

While it may be possible that these differences are attributable to the disparate demographics of Baltimore and Seattle, further investigation into the placement of NGOs, as well as the politics of local government climate intervention, is required to make any definitive claims. It was shown here that even despite the share of government involvement in Baltimore,

lower income, higher minority cities may not necessarily see more climate justice initiatives, likely due to fewer resources and limited investment. Moreover, future studies could conduct international comparisons, analyzing different types of cases to examine what constitutes successful climate justice approaches. Even within the United States, it is possible that coastal cities differ in their tactics to inland ones, and even a deeper assessment of which residents in particular are partaking in justice advocacy could be conducted.

Some of these questions could have been answered by this research absent the limitations that were imposed upon it. Lack of accessibility to these communities prevented extensive insight into the events that have transpired in them, and abbreviated research time constrained the depth of information that could be gleaned, such as interviewing local policymakers and residents to ascertain their perspective on the issue. Consequently, only evidence that could be found online was used in this study, which may not entail all that has happened in these cities.

Despite these limitations, this research does provide insights into climate justice efforts, with implications that extend beyond Baltimore and Seattle's city limits. Climate change is rapidly encroaching on cities and populations worldwide, and it is mandatory that the needs of those most vulnerable be addressed. Knowing which actions are currently being undertaken, as well as which ones are most effective, is useful in employing them elsewhere. This knowledge-sharing, discussed in previous literature, will be instrumental in implementing equitable policies moving forward.

Baltimore and Seattle also demonstrate, though, that while it is necessary to aspire to climate equity, that is not all you must do. Even as climate change's effects become increasingly tangible, especially in cities along the coast, Baltimore and Seattle both have yet to make substantive progressive changes to mitigate and adapt. Ultimately, while people and NGOs are vital in imploring action be done, government action, specifically what policies are actually passed, will determine how successful a city is in preventing the worst consequences that a warming world has to offer. And unfortunately, at this defining moment in time, it appears that neither Baltimore nor Seattle have fully come to terms with the impacts that they are already facing, and which will only become exponentially worse in the not-so-distant future.

## IX. Works Cited

- 350 Seattle. *About: mission and values*. (2020, April 14). 350 Seattle.  
<https://350seattle.org/about-mission-and-values/>
- About Seattle—OPCD | seattle.gov*. (n.d.). Office of Planning and Community Development.  
<https://www.seattle.gov/opcd/population-and-demographics/about-seattle#raceethnicity>
- Al Baz, Shahd. *Climate change as a social justice issue in Seattle | Urban@UW*. (2019, April 18). [urbanuw/news/climate-change-as-a-social-justice-issue-in-seattle/](http://urbanuw/news/climate-change-as-a-social-justice-issue-in-seattle/)
- APHA announces Student Champions for Climate Justice award winners. (2020, February 6).  
<https://www.apha.org/news-and-media/news-releases/apha-news-releases/2020/student-climate-champions>

- Archer, D., & Dodman, D. (2015). Making capacity building critical: Power and justice in building urban climate resilience in Indonesia and Thailand. *Urban Climate*, 14, 68–78. <https://doi.org/10.1016/j.uclim.2015.06.007>
- Baker, A., Brenneman, E., Chang, H., McPhillips, L., & Matsler, M. (2019). Spatial analysis of landscape and sociodemographic factors associated with green stormwater infrastructure distribution in Baltimore, Maryland and Portland, Oregon. *Science of The Total Environment*, 664, 461–473. <https://doi.org/10.1016/j.scitotenv.2019.01.417>
- Baltimore & Climate Change. (n.d.). Baltimore Office of Sustainability. <https://www.baltimoresustainability.org/baltimore-climate-change/>
- Baltimore City Sustainable Community Area. (n.d.). City of Baltimore Planning. <http://planning.baltimorecity.gov/sites/default/files/BALTIMORE%20CITY%20SUSTAINABLE%20COMMUNITY%20AREA%20update%20planning%20department%20062416%20edits.pdf>
- Baltimore Green Network. (n.d.). Baltimore Office of Sustainability. <https://www.baltimoresustainability.org/projects/baltimore-green-network/>
- Baltimore Green Network Plan. (n.d.). Baltimore Office of Sustainability. <https://www.baltimoresustainability.org/projects/green-network/>
- Baltimore Peoples Climate Movement | Facebook. (n.d.). from <https://www.facebook.com/BaltimorePCM/>
- Baptista, A. I., Sachs, A., & Rot, C. (2019). *Seattle LOCAL POLICIES FOR ENVIRONMENTAL JUSTICE: A NATIONAL SCAN*. The New School: Tishman Environment and Design Center. <https://www.nrdc.org/sites/default/files/local-policies-environmental-justice-national-scan-tishman-201902.pdf>
- Barrett, S. (2013). Local level climate justice? Adaptation finance and vulnerability reduction. *Global Environmental Change*, 23(6), 1819–1829. <https://doi.org/10.1016/j.gloenvcha.2013.07.015>
- Bitter Cold: Climate change, public health and Baltimore* | CNS Maryland. (n.d.). Baltimore Climate and Health Project. <https://cnsmaryland.org/interactives/spring-2019/bitter-cold/index.html>
- Black Lives on the Frontline*. (2019). Town Hall Seattle. <https://townhallseattle.org/event/black-lives-on-the-frontline/>
- Bonifay, J.-L. (2019, April 22). *Hell and High Water*. Baltimore Magazine. <https://www.baltimoremagazine.com/section/historypolitics/climate-change-wreaking-havoc-baltimore-infrastructure-public-health/>
- Boteler, Cody. *Former Del. Stephen Lafferty is Baltimore County's first chief sustainability officer. What does that mean?* - Baltimore Sun. (2019, October 2). <https://www.baltimoresun.com/maryland/baltimore-county/cng-co-lafferty-sustainability-20191002-els7w7yilfdufe4w5k4iuawyoe-story.html>
- Brown, Kristin. *Seattle awards \$250,000 for environmental justice projects*. Greenspace Blog. (2020, January 8). <https://greenspace.seattle.gov/2020/01/seattle-awards-250000-for-environmental-justice-projects/#sthash.5F0paDq0.oSBdA7Ld.dpbs>
- Brownstone, Sydney. *What Seattle Will Look Like After 2050 If We Don't Get Real About Climate Change—Features—The Stranger*. (2015, June 3). <https://www.thestranger.com/features/feature/2015/06/03/22325034/what-seattle-will-look-like-after-2050-if-we-dont-get-real-about-climate-change>



- Bulkeley, H., Carmin, J., Castán Broto, V., Edwards, G. A. S., & Fuller, S. (2013). Climate justice and global cities: Mapping the emerging discourses. *Global Environmental Change*, 23(5), 914–925. <https://doi.org/10.1016/j.gloenvcha.2013.05.010>
- Bulkeley, H., Edwards, G. A. S., & Fuller, S. (2014). Contesting climate justice in the city: Examining politics and practice in urban climate change experiments. *Global Environmental Change*, 25, 31–40. <https://doi.org/10.1016/j.gloenvcha.2014.01.009>
- Byskov, M. F., Hyams, K., Satyal, P., Anguelovski, I., Benjamin, L., Blackburn, S., Borie, M., Caney, S., Chu, E., Edwards, G., Fourie, K., Fraser, A., Heyward, C., Jeans, H., McQuistan, C., Paavola, J., Page, E., Pelling, M., Priest, S., ... Venn, A. (2019, December 21). An agenda for ethics and justice in adaptation to climate change. *Climate and Development*, 13(1), 1–9. <https://doi.org/10.1080/17565529.2019.1700774>
- Castán Broto, V., & Bulkeley, H. (2013). A survey of urban climate change experiments in 100 cities. *Global Environmental Change*, 23(1), 92–102. <https://doi.org/10.1016/j.gloenvcha.2012.07.005>
- Centering Equity in the Sustainable Building Sector*. (n.d.). NAACP. <https://naacp.org/climate-justice-resources/centering-equity-sustainable-building-sector/>
- Centering Equity in the Sustainable Building Sector: Universalizing access to safe, affordable, healthy, and energy efficient spaces where we live, work, and play. (2018, August 5). *Rapid Shift*. <http://www.rapidshift.net/centering-equity-in-the-sustainable-building-sector/>
- Challenge Night: Climate Change & Climate Justice*. (2019). Leadership Tomorrow. <https://www.leadershiptomorrowseattle.org/events/2019/11/7/challenge-night-climate-change>
- Chapter 25.05—ENVIRONMENTAL POLICIES AND PROCEDURES | *Municipal Code* | Seattle, WA | *Municode Library*. (n.d.). [https://library.municode.com/wa/seattle/codes/municipal\\_code?nodeId=TIT25ENPRHI\\_PR\\_CH25.05ENPOPR\\_SUBCHAPTER\\_IIICAEXTHDE\\_25.05.330THDEPR](https://library.municode.com/wa/seattle/codes/municipal_code?nodeId=TIT25ENPRHI_PR_CH25.05ENPOPR_SUBCHAPTER_IIICAEXTHDE_25.05.330THDEPR)
- Cho, Renee. Why Climate Change is an Environmental Justice Issue. (2020, September 22). *State of the Planet*. <https://blogs.ei.columbia.edu/2020/09/22/climate-change-environmental-justice/>
- Chu, E., Anguelovski, I., & Carmin, J. (2015). Inclusive approaches to urban climate adaptation planning and implementation in the Global South. *Climate Policy*, 16(3), 372–392. <https://doi.org/10.1080/14693062.2015.1019822>
- City of Baltimore. *Disaster Preparedness and Planning Project (DP3)*. (2018). <https://www.baltimoresustainability.org/wp-content/uploads/2019/10/2018-DP3-For-Print.pdf>
- City of Baltimore. (2019). *The Baltimore Sustainability Plan*. [https://www.baltimoresustainability.org/wp-content/uploads/2019/02/Sustainability-Plan\\_01-30-19-compressed-1.pdf](https://www.baltimoresustainability.org/wp-content/uploads/2019/02/Sustainability-Plan_01-30-19-compressed-1.pdf)
- Class, the E. 121. (n.d.). What is this book? In *Building a Greener Future: A UW Research Report into Seattle's Climate Justice Movement*. Retrieved March 11, 2021, from <https://uw.pressbooks.pub/121climatejustice/front-matter/introduction/>
- Climate*. (n.d.). Duwamish River Cleanup Coalition. <https://www.duwamishcleanup.org/climate>
- Climate Alliance for Jobs and Clean Energy. *About the Alliance*. (n.d.). Climate Alliance for Jobs and Clean Energy. <https://waclimatealliance.org/about/>

- Climate Justice for Black Lives*. (2020). The Nature Conservancy in Washington. <https://www.washingtonnature.org/volunteer-events/2020/8/28/climate-justice-for-black-lives>
- Climate Justice Impact Strategy*. (n.d.). Seattle Foundation. <https://www.seattlefoundation.org/-/media/SeaFdn/Files/Publications-and-brochures/Program-brochures/SeaFdn-Climate-Justice-Initiative.pdf?la=en&hash=1A37158F0539C84D48C48BD483CE7A99E009D4C8>
- Cohen, D. (2018). *Climate Justice and the Right to the City*. <https://pennur.upenn.edu/uploads/media/Cohen.pdf>
- Colvin, Geoff. *Amazon's activist employees are sowing the seeds of unionization*. (2020, October 16). Fortune. <https://fortune.com/2020/10/16/amazon-employee-activists-union-climate-justice/>
- Curran, Colleen and Pottiger, Maya. (n.d.). *Resiliency Hubs*. CNS Maryland. <https://cnsmaryland.org/interactives/fall-2019/hubs/index.html>
- Deville, Taylor. *Baltimore County makes headway on some sustainability projects, while coronavirus pandemic stalls others—Baltimore Sun*. (2020, August 31). <https://www.baltimoresun.com/maryland/baltimore-county/towson/cng-co-to-sustainability-coronavirus-20200831-kp2bqijcv5bnprqn2r7bif33e-story.html>
- Disaster Preparedness and Planning* |. (n.d.). Baltimore Office of Sustainability. <https://www.baltimoresustainability.org/make-a-kit-build-a-plan-help-each-other/>
- Disaster Preparedness and Planning Project (DP3)* |. (n.d.). <https://www.baltimoresustainability.org/plans/disaster-preparedness-plan/>
- Duwamish Valley: Background & Resources—Environment* | *seattle.gov*. (2021). Office of Sustainability and Environment. <http://www.seattle.gov/environment/equity-and-environment/duwamish-valley-program/dvp-resources>
- Environmental Justice—Environment* | *seattle.gov*. (2021). Office of Sustainability and Environment. <http://www.seattle.gov/environment/environmental-progress/environmental-justice>
- Equity and Environment Agenda*. (n.d.) Seattle Office of Sustainability and Environment. <http://www.seattle.gov/Documents/Departments/Environment/EnvironmentalEquity/SeattleEquityAgenda.pdf>
- Equity & Environment Initiative—Environment* | *seattle.gov*. (n.d.). Office of Sustainability and Environment. <https://www.seattle.gov/environment/equity-and-environment/equity-and-environment-initiative>
- Equity and Social Justice*. (2020, February 18). King County. <https://www.kingcounty.gov/elected/executive/equity-social-justice.aspx>
- Equity and Social Justice Strategic Plan, 2016-2022*. (n.d.). King County. <https://your.kingcounty.gov/dnrp/library/dnrp-directors-office/equity-social-justice/201609-ESJ-SP-FULL.pdf>
- Foster, Dionne and List, Elizabeth. *In Pursuit of Climate Justice* | *Seattle Foundation*. (2020, December 14). <https://www.seattlefoundation.org/Blog/Articles/2020/12/in-pursuit-of-climate-justice>
- Front and Centered. *About Us*. (n.d.). Front and Centered. <https://frontandcentered.org/about-us/>
- Front and Centered. (2020). *Accelerating a Just Transition in Washington State: Climate Justice Strategies from the Frontlines*. <https://frontandcentered.org/wp-content/uploads/2020/10/Front-and-Centered-Accelerating-Just-Transition-WAState.pdf>

- Fruttero, A., & Gauri, V. (2005). The Strategic Choices of NGOs: Location Decisions in Rural Bangladesh. *The Journal of Development Studies*, 41(5), 759–787.  
<https://doi.org/10.1080/00220380500145289>
- Galway, L. P., Corbett, K. K., & Zeng, L. (2012). Where are the NGOs and why? The distribution of health and development NGOs in Bolivia. *Globalization and Health*, 8, 38.  
<https://doi.org/10.1186/1744-8603-8-38>
- Girard, D. (2019, December 17). PROTEC17 members host first Climate Justice Summit. *PROTEC17*. <https://www.protec17.org/2019/12/17/protec17-members-host-first-climate-justice-summit/>
- Giving Compass. *SVPI's New CEO Sudha Nandagopal on Power, Priorities, and Philanthropy*. (2019, August 22). Giving Compass. <https://givingcompass.org/article/svpis-new-ceo-sudha-nandagopal/>
- Got Green. *Who We Are*. (2016). Got Green. <https://gotgreenseattle.org/home/who-we-are/>
- Got Green and Puget Sound Sage. (2016). *Our People, Our Planet, Our Future*.  
[https://gotgreenseattle.org/wp-content/uploads/2016/03/OurPeopleOurPlanetOurPower\\_GotGreen\\_Sage\\_Final1.pdf](https://gotgreenseattle.org/wp-content/uploads/2016/03/OurPeopleOurPlanetOurPower_GotGreen_Sage_Final1.pdf)
- GreenNetworkPlan\_FullDocument\_Reduced\_2018\_0926.pdf*. (2018). Dropbox.  
[https://www.dropbox.com/s/szs9d0elvotosp1/GreenNetworkPlan\\_FullDocument\\_Reduced\\_2018\\_0926.pdf?dl=0](https://www.dropbox.com/s/szs9d0elvotosp1/GreenNetworkPlan_FullDocument_Reduced_2018_0926.pdf?dl=0)
- Hardy, R. D., Milligan, R. A., & Heynen, N. (2017). Racial coastal formation: The environmental injustice of colorblind adaptation planning for sea-level rise. *Geoforum*, 87, 62–72. <https://doi.org/10.1016/j.geoforum.2017.10.005>
- Hughes, S. (2020). Principles, drivers, and policy tools for just climate change adaptation in legacy cities. *Environmental Science & Policy*, 111, 35–41.  
<https://doi.org/10.1016/j.envsci.2020.05.007>
- IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. *World Meteorological Organization, Geneva, Switzerland*, 32 pp.
- Jammulamadaka, N., & Varman, R. (2010). Is Ngo Development Assistance Mistargeted? An Epistemological Approach. *Critical Review*, 22(2–3), 117–128.  
<https://doi.org/10.1080/08913811.2010.508630>
- Jurjonas, M., Seekamp, E., Rivers, L., & Cutts, B. (2020). Uncovering climate (in)justice with an adaptive capacity assessment: A multiple case study in rural coastal North Carolina. *Land Use Policy*, 94, 104547. <https://doi.org/10.1016/j.landusepol.2020.104547>
- Kennedy, Sarah. *Baltimore's "Adopt A Lot" program helps residents convert vacant lots into usable green spaces*. *Yale Climate Connections*. (2019, October 29). Yale Climate Connections. <https://yaleclimatemediainforum.org/2019/10/baltimore-program-helps-residents-convert-vacant-lots-into-usable-green-spaces/>
- Kiefer, Paul Faruq. (2020, August 30). *New Climate Justice for Black Lives Collective Holds First Rally on Beacon Hill*. South Seattle Emerald.

- <https://southseattleemerald.com/2020/08/30/new-climate-justice-for-black-lives-collective-holds-first-rally-on-beacon-hill/>
- Kim, H., Marcouiller, D. W., & Woosnam, K. M. (2018). Rescaling social dynamics in climate change: The implications of cumulative exposure, climate justice, and community resilience. *Geoforum*, 96, 129–140. <https://doi.org/10.1016/j.geoforum.2018.08.006>
- King County Climate Action Team (eds.). (2020). *King County 2020 Strategic Climate Action Plan*. King County, Washington. <https://your.kingcounty.gov/dnrp/climate/documents/2020-SCAP-Full-Plan.pdf>
- Klinsky, S., & Mavrogianni, A. (2020). Climate justice and the built environment. *Buildings and Cities*, 1(1), 412–428. <https://doi.org/10.5334/bc.65>
- Koch, D.-J., Dreher, A., Nunnenkamp, P., & Thiele, R. (2009). Keeping a Low Profile: What Determines the Allocation of Aid by Non-Governmental Organizations? *World Development*, 37(5), 902–918. <https://doi.org/10.1016/j.worlddev.2008.09.004>
- Koch, Dirk-Jan and Ruben, Ruerd. (2008). Spatial clustering of NGOs: An evolutionary economic geography approach [Working paper]. Utrecht : UU, Economic Geography. Papers in Evolutionary Economic Geography (PEEG); 08.14. <https://repository.ubn.ru.nl/bitstream/handle/2066/73443/73443.pdf>
- Larson, Samantha. (2016, May 26). *Meet the Northwest's environmental justice champions* | *Crosscut*. Retrieved March 11, 2021, from <https://crosscut.com/2016/05/meet-the-northwests-environmental-justice-champions>
- Leading with Equity in the 2020 Strategic Action Plan*. (2020, August 31). King County. <https://kingcounty.gov/services/environment/climate.aspx>
- Legislative Advocacy*. (n.d.). South Seattle Climate Action Network. <http://www.southseattleclimate.org/project/livingcommunities/>
- Maryland, H. C. for I. J. and C. N. S. at M. C. of J., University of. (2019, September 3). *Code Red: Baltimore's Climate Divide*. <https://cnsmaryland.org/interactives/summer-2019/code-red/behind-scenes.html>
- Mayor and City Council of Baltimore vs. BP et al. (2018). Circuit Court for Baltimore City. [http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2018/20180720\\_docket-24-C-18-004219\\_complaint.pdf](http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2018/20180720_docket-24-C-18-004219_complaint.pdf)
- McGee, Max. *Baltimore Students Hold Climate Strike At Inner Harbor, City Hall* – *CBS Baltimore*. (2019, September 20). <https://baltimore.cbslocal.com/2019/09/20/baltimore-students-expected-to-walk-out-of-school-gather-at-inner-harbor-for-climate-strike/>
- McManus, P., Shrestha, K. K., & Yoo, D. (2014). Equity and climate change: Local adaptation issues and responses in the City of Lake Macquarie, Australia. *Urban Climate*, 10, 1–18. <https://doi.org/10.1016/j.uclim.2014.08.003>
- McCoy, Maria. (2020, December 16). *In Seattle, Corporations Must Pay Their Fair Share to Support Climate Justice—Episode 119 of Local Energy Rules*. Institute for Local Self-Reliance. <https://ilsr.org/seattle-jumpstart-tax-ler-119/>
- NAACP Environmental and Climate Justice Program*. (n.d.). NAACP. <https://www.naacp.org/environmental-climate-justice-about/>
- NAACP Launches Climate Initiative at Maryland Carey Law* | *Maryland Carey Law*. (2019, March 21). <https://www.law.umaryland.edu/News-and-Events/News-Item/NAACP-Climate-Initiative.php>

- Nancy, Gilles and Yontcheva, Boriana. (2006). Does NGO Aid Go to the Poor? Empirical Evidence from Europe. International Monetary Fund Working Paper. <https://www.imf.org/external/pubs/ft/wp/2006/wp0639.pdf>
- Nicholas, P. K., & Breakey, S. (2017). Climate Change, Climate Justice, and Environmental Health: Implications for the Nursing Profession. *Journal of Nursing Scholarship*, 49(6), 606–616. <https://doi.org/10.1111/jnu.12326>
- Nonviolent Direct Action and the Struggle for Climate Justice: A Perspective from 350 Seattle - Climate Change Resources*. (2019, June 21). <https://350.org/nvda-reflection-resource-guide/>
- Osborne, K. (2021). *Baltimore Environmental Equity Partnership*. Baltimore Environmental Equity Partnership. Retrieved March 11, 2021, from <http://www.baltimoreenvironmentalequity.org/>
- Our Platform*. (n.d.). Peoples Climate Movement. <https://peoplesclimate.org/platform/>
- Projected Climate Changes—Utilities* | *seattle.gov*. (n.d.). Seattle Public Utilities. <http://www.seattle.gov/utilities/protecting-our-environment/community-programs/climate-change/projected-changes>
- Puget Sound Sage. *About Us*. (n.d.). Puget Sound Sage. <https://www.pugetsoundsage.org/about-us/>
- Rice, J. L., Cohen, D. A., Long, J., & Jurjevich, J. R. (2019). Contradictions of the Climate-Friendly City: New Perspectives on Eco-Gentrification and Housing Justice. *International Journal of Urban and Regional Research*, 44(1), 145–165. <https://doi.org/10.1111/1468-2427.12740>
- Roberts, Paul. *Seattle Chamber sues over city's new 'JumpStart' payroll tax on big businesses*. (2020, December 8). The Seattle Times. <https://www.seattletimes.com/seattle-news/seattle-chamber-sues-over-citys-new-jumpstart-payroll-tax-on-big-businesses/>
- Rogerson, B. and Narayan, M.M. *Resilience Hubs Can Help Communities Thrive—And Better Weather Disasters*. (2020, June 22). <https://pew.org/2UTg7Ti>
- Roper, Mark. *Baltimore neighborhood identified as “ground zero” for local effects of climate crisis*. (2019, September 3). <https://www.wmar2news.com/news/region/baltimore-city/baltimore-neighborhood-identified-as-ground-zero-for-local-effects-of-climate-crisis>
- Russillo, Jack. (2021, January 18). *HEAL Act, “The Cornerstone of Any Environmental Policy,” Makes Its Way Through Legislature*. South Seattle Emerald. <https://southseattleemerald.com/2021/01/18/heal-act-the-cornerstone-of-any-environmental-policy-makes-its-way-through-legislature/>
- Savage, Karen. (2020, November 17). Oil Companies Ask Supreme Court to Send All Climate Cases to Federal Court. *The Climate Docket*. <https://www.climatedocket.com/2020/11/17/supreme-court-climate-cases-jurisdiction-baltimore/>
- Seattle Climate Walkout*. (2019). The Action Network. <https://actionnetwork.org/events/seattle-climate-walkout>
- SEATTLE CITY COUNCIL - Record No: Res 31712*. (2016, October 3). <http://seattle.legistar.com/LegislationDetail.aspx?ID=2840707&GUID=8A368256-EA69-4186-8AA9-1C86DC6A92AB&Options=&Search&FullText=1>
- Seattle Foundation. *About Us*. (n.d.). Seattle Foundation. <https://www.seattlefoundation.org/aboutus>

- Seawright, J. and Gerring, J. Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. (2008).  
<https://journals.sagepub.com/doi/10.1177/1065912907313077>
- Shue, H. (2014). *The Many Faces of Climate Justice: An Essay Series on the Principles of Climate Justice Share Benefits and Burdens Equitably*.  
<https://www.mrfcj.org/pdf/faces-of-climate-justice/Sharing-the-Benefits-and-Burdens.pdf>
- Simmons, Daisy. *What is “climate justice”?* *Yale Climate Connections*. (2020, July 29). Yale Climate Connections. <https://yaleclimateconnections.org/2020/07/what-is-climate-justice/>
- Sokol, K., McGarity, T., Shapiro, S., & Flores, D. *Climate Justice: State Courts and the Fight for Equity*. (2019). <http://progressivereform.org/our-work/energy-environment/climate-justice-state-courts-and-fight-equity/>
- Solutions: Policy*. (2020, April 13). 350 Seattle. <https://350seattle.org/solutions-policy/>
- Sopariwala, Afrin. *Conversations on Climate Justice – Matt Remle*. (2017, February 15). Front and Centered. <https://frontandcentered.org/conversations-on-climate-justice-matt-remle/>
- South Seattle Climate Action Network. *About SSCAN*. South Seattle Climate Action Network. (n.d.). <http://www.southseattleclimate.org/welcome/>
- “Status.” *Disaster Preparedness and Planning Project (DP3) -2018 Status*. (2018). Baltimore Office of Sustainability. <https://www.baltimoresustainability.org/wp-content/uploads/2018/10/2018-DP3-Status-Report.pdf>
- Sustainable Communities (SC) Designation*. (2016, January 7). Department of Planning. <https://planning.baltimorecity.gov/planning-communities>
- Strategy Areas*. (2018, July 30). King County. <https://kingcounty.gov/elected/executive/equity-social-justice/strategic-plan/equity-strategic-plan/area.aspx>
- Sustainable Communities (SC) Designation*. (2016, January 7). Department of Planning. <https://planning.baltimorecity.gov/planning-communities>
- UAW Local 4121 . Climate Justice*. (n.d.). <https://www.uaw4121.org/get-involved/working-groups/climate-justice/>
- U.S. Census Bureau QuickFacts: Baltimore city, Maryland (County)*. (n.d.). <https://www.census.gov/quickfacts/fact/table/baltimorecitymarylandcounty/AGE295219>
- UW Climate Impacts Group, UW Department of Environmental and Occupational Health Sciences, Front and Centered and Urban@UW. (2018). *An Unfair Share: Exploring the disproportionate risks from climate change facing Washington state communities*. A report prepared for Seattle Foundation. University of Washington, Seattle.
- van der Heijden, J. (2019). Studying urban climate governance: Where to begin, what to look for, and how to make a meaningful contribution to scholarship and practice. *Earth System Governance, 1*, 100005. <https://doi.org/10.1016/j.esg.2019.100005>
- Venn, A. (2019). 24—Social justice and climate change. In T. M. Letcher (Ed.), *Managing Global Warming* (pp. 711–728). Academic Press. <https://doi.org/10.1016/B978-0-12-814104-5.00024-7>
- Virtual Civic Boot Camp: Climate Justice. (2020). *Fremont, Seattle*.  
<https://fremont.com/event/virtual-civic-boot-camp-climate-justice-5-29/>
- Wetter, Margaret. *Racial Justice is Climate Justice*. (2020, August 24). sustainable BALLARD.  
<https://www.sustainableballard.org/racial-justice-is-climate-justice/>

- WysockS. *Seattle awards nearly \$350,000 for environmental justice projects*. (2018, December 19). Greenspace Blog. <https://greenspace.seattle.gov/2018/12/seattle-awards-nearly-350000-for-environmental-justice-projects/#sthash.HwBvotoE.tGwHHZmw.dpbs>
- Yuen, T., Yurkovich, E., Grabowski, L., & Altshuler, B. (2017). *EQUITABLE, COMMUNITY-DRIVEN CLIMATE PREPAREDNESS PLANNING*. [https://www.urbanwaterslearningnetwork.org/wp-content/uploads/2019/07/usdn\\_guide\\_to\\_equitable\\_community-driven\\_climate\\_preparedness-high\\_res.pdf](https://www.urbanwaterslearningnetwork.org/wp-content/uploads/2019/07/usdn_guide_to_equitable_community-driven_climate_preparedness-high_res.pdf)