



## The Disproportionate Impacts of Climate Change on Communities of Color in Washington State

July 20<sup>th</sup>, 2016

By Jacques Colon

### Summary

There are immediate and discreet threats from climate change that are likely to disproportionately impact communities of color and people with lower incomes. There are also much deeper foundational threats to our communities from climate change that stem from economic and social opportunity gaps that have persisted and compounded over generations.

- Communities of color and people with lower incomes are on the frontlines of climate impacts happening now like drought and increased temperatures that reduce air quality, cause illness and create hazards for workers in fields like construction, farms and fishing.
- Communities of color and people with lower incomes have less ability to adapt to climate change, which acts as a threat amplifier to social and economic disparities.
- The legacy and persistence of discriminatory housing, education and employment create conditions where communities of color live and work in neighborhoods and jobs that are least protected from extreme climate related events.

### The immediate impacts of climate change disproportionately impact people with low incomes and communities of color.

Climate change threatens human health and well-being from increased extreme weather events, wildfire, decreased air quality, threats to mental health, illnesses transmitted by food and water, and diseases spread by carriers such as mosquitoes and ticks.<sup>1</sup> We are already experiencing increases in our average temperature and sea levels in Washington State. We are seeing heavier rainfall in winter and drier summers. In the future, with climate change, temperatures are projected to rise another 3.5°F (2°C) by mid-century and 5.9°F (3.3°C) by late century. Residents will likely face water shortages from early snowmelt, more frequent very hot days, increases in the numbers of “bad air days”, and increased flood risks.<sup>2</sup>

According to the Washington State Department of Ecology, “heat-related illnesses and mortality are likely to increase when temperatures exceed thresholds of 100 degrees, especially without air conditioning and when nighttime temperatures remain high. Higher summer temperatures are likely to result in more smog in urban areas” which aggravate respiratory conditions.<sup>3</sup> These respiratory conditions will also be caused or exacerbated by heat waves, air pollutants from industry, automotive emissions, increased pollen production, and forest fire particles. “As temperatures rise, Seattle, Spokane and other urban areas come closer to violating Clean Air Act standards.” *ibid*

Based on the information about the increased risks of heat waves, air pollutants from power plants, and auto emissions, who will suffer these consequences most? We know from research done in Washington State that communities of color are disproportionately burdened by air pollutants and auto emissions.<sup>4</sup> We also know that there are higher rates of respiratory conditions in people of color, especially Native American and Black communities in Washington.<sup>5, 6, 7, 8</sup> Additionally, many natural resources such as shellfish and salmon are affected by ocean acidification, and those that rely most on those resources are often indigenous, other people of color, and people with lower incomes. For example, as described in the National Climate Assessment, one of the key threats to Native Americans is “*increased food insecurity due to reduced availability of traditional foods*”.<sup>9</sup>

When coupling these disparities with larger inequities of wealth and access to resources, we conclude that communities of color in Washington will suffer a greater proportion of the negative consequences of a changing climate.

## **The long-term impacts of climate change are more likely to more negatively impact communities of color and people with low incomes.**

Communities impacted by systemic racism and communities with lower incomes and wealth have fewer resources to prepare for climate impacts, including less ability to escape or relocate in extreme events. Hurricane Katrina demonstrated how vulnerable certain groups of people are to extreme weather events. Many of the New Orleans residents, who were killed, injured, or had difficulty evacuating and recovering from the storm, were people with low incomes or were people of color.

It is true that the main climate change-related threats we face in Washington will affect everyone in the state in some way (wildfires, flooding, extreme heat, drought, ocean acidification, to name just a few upstream impacts). However, different communities are positioned differently because of their race, jobs, or wealth, and thus have different

capacity to adapt to these threats. The disproportionate impacts communities of color face are just beginning to enter the public conversation, but are well documented.

For example, indigenous people in the Pacific Northwest face numerous challenges and potential consequences from climate change, including substantial threats to the systems that have supported their way of life for millennia.<sup>10</sup> According to the U.S. National Climate Assessment<sup>11</sup>:

*The peoples, lands, and resources of indigenous communities in the United States, including Alaska and the Pacific Rim, face an array of climate change impacts and vulnerabilities that threaten many Native communities. The consequences of observed and projected climate change have and will undermine indigenous ways of life that have persisted for thousands of years. Key vulnerabilities include the loss of traditional knowledge in the face of rapidly changing ecological conditions, increased food insecurity due to reduced availability of traditional foods, changing water availability, Arctic sea ice loss, permafrost thaw, and relocation from historic homelands... Climate change impacts on forests and ecosystems are expected to have direct effects on culturally important plant and animal species, which will affect tribal sovereignty, culture, and economies.*

## **The legacy and persistence of institutional discrimination increases the risk of harm in extreme weather events for communities of color.**

Recent climate modeling results indicate that "extreme" weather events may become more common. Rising average temperatures produce a more variable climate system. What can we expect with weather changes? Localized events could include:

- windstorms
- heat waves, droughts
- storms with extreme rain or snow, and
- dust storms.

In addition to the disproportionate harm directly caused by these events, much of the damage caused may be related to things like historical zoning practices, whereby disenfranchised communities were funneled to the highest risk areas. Other factors that may affect how a community suffers from localized weather events are how much discretion someone's job gives them to take days off, or how much money someone has available to evacuate or invest in weatherization. Some communities are more vulnerable to those effects than others, and those differences are much more complicated than simple geographic vulnerability. The adaptive capacity of those affected differs across social and economic lines.

Factors like race, geography, income, and play a large role in determining how severely the effects of climate change are felt. Those already suffering from the effects of racial and income inequities live in systematically under-resourced neighborhoods, created by policies such as redlining and racially restrictive housing covenants, local-levied public education, and the disproportionate siting of sources of toxic pollution. For example, redlining was a common practice in the mid-20th century whereby the Federal Housing Authority, banks, and lenders would rate neighborhoods for desirability and adjust economic opportunities such as loan rates accordingly. One of the factors considered when making these ratings was whether there were non-white residents in the neighborhood. If there were, then the neighborhood would be deemed less desirable and receive higher interest rates, etc. As a result of this, many neighborhoods enlisted strategies such as racially restrictive covenants to prevent people of color from residing in those neighborhoods.<sup>12</sup>

These practices created racially segregated housing, education, employment, and opportunity. Communities of color have been less resourced in terms of systems of employment, including benefits such as paid sick leave, maternity leave, health care, etc. They have also been less resources in terms of transportation, housing, education, insurance, banking, and more. Each of these factors contribute to the protective factors we have at our disposal to prevent and respond to the consequences of any crisis, including those exacerbated by climate change.

*Our People, Our Planet, Our Power*,<sup>13</sup> a community-based participatory research project by Got Green and Puget Sound Sage, reports how frontline communities are less likely to have the resources they need to adapt to climate change.

Why are some communities, which we call frontline communities, more affected than others? Individuals, families, and communities are either vulnerable to or resilient against the threats faced from climate change based on a number of different factors. These factors include social connections (or social isolation), social capital, economic stability, quality of infrastructure, quality of housing, access to transportation, and more.<sup>ibid, 14, 15</sup> Combined, these factors create the adaptive capacity of a community to any threat or emergency.

Community roundtables conducted for the 2016 *Our People, Our Planet, Our Power* report discussed Hurricane Katrina. Participants at those roundtables “identified that the poorest neighborhoods lacked the resources to evacuate (not having cars or access to adequate public transportation), nor was there support from the broader government to rebuild their communities.”

*Front and Centered Report:*

The Disproportionate Impacts of Climate Change on Communities of Color in Washington State

Climate change is often referred to as a threat multiplier (or amplifier) because it increases the frequency and/or intensity of existing threats such as flooding and extreme heat events. Through both data and anecdotal evidence, people in Washington are talking more and more about how things like the weather have changed or become more extreme since their childhoods. According to *Our People, Our Planet, Our Power*, “we have already witnessed the worst heat waves, droughts, and wildfires in Eastern Washington of our lifetimes.”

The idea of adaptive capacity to deal with amplified threats is supported by many of the findings of the report. For example, “access to healthy, affordable food is a pre-existing vulnerability in our communities.” Other issues impacting most neighborhoods included lack of public transportation, pests and insects, exposure to mold, and exposure to toxic chemicals. These overlapping hazards increase vulnerability to climate impacts. One example in the report is how increased extreme heat days contribute to worsening respiratory problems like asthma, which may be worse for folks exposed to more diesel exhaust and/or poor indoor air quality.

Another factor to consider when thinking about how different communities are able to adapt is employment. The report points out that “economic sectors like agriculture and tourism, which in many places predominantly employ people of color and low-income people, will be hard-hit by climate change.”

Climate is happening now and there are immediate and discreet threats facing all people of Washington. But disproportionately it is impacting the health, homes and jobs of communities of color and people with lower incomes. Over the long term, climate change will compound discrimination and disparities that exist along racial and economic lines, dangerously amplifying inequities that exists for people of color in Washington State.

*Front and Centered (formerly Communities of Color for Climate Justice) is a statewide coalition of organizations and groups rooted in communities of color and people with lower incomes; we’re on the frontlines of economic and environmental change. As thought leaders and organizers our agenda and strength is built with our grassroots community. We work together to build power and capacity for a Just Transition that centers equity and is led by people of color.*

**Sources:**

1. U.S. Global Change Research Program, *2014 National Climate Assessment* (2014). <http://nca2014.globalchange.gov/report>.
2. United States Environmental Protection Agency, *Climate Impacts in the Northwest* (2016). <https://www3.epa.gov/climatechange/impacts/northwest.html>
3. Washington State Department of Ecology, *Facing Climate Change: What's Happening in Washington State* (2016). [http://www.ecy.wa.gov/climatechange/warming\\_more.htm#humanhealth](http://www.ecy.wa.gov/climatechange/warming_more.htm#humanhealth)
4. National Equity Atlas (2016). <http://nationalequityatlas.org/>.
5. Tacoma-Pierce County Health Department. *2015 Health Equity Assessment*, (2015). <http://www.tpchd.org/files/library/f0fee2b5bf1a197f.pdf>.
6. Washington State Department of Health, *Mortality and Life Expectancy*, (2013). <http://www.doh.wa.gov/Portals/1/Documents/5500/GHS-MLE2013.pdf>.
7. King County Hospitals for a Healthier Community, *Life Expectancy at Birth in King County, 2008-2012 Average*. [http://www.kingcounty.gov/healthservices/health/data/~/\\_media/health/publichealth/documents/indicators/LifeExpectancy/LifeExpectancy.ashx](http://www.kingcounty.gov/healthservices/health/data/~/_media/health/publichealth/documents/indicators/LifeExpectancy/LifeExpectancy.ashx)
8. King County Hospitals for a Healthier Community, *Current Asthma among Children in King County, 2009-2013 Average*. [http://www.kingcounty.gov/healthservices/health/data/~/\\_media/health/publichealth/documents/indicators/ChronicIllness/CurrentAsthmaAmongChildren.ashx](http://www.kingcounty.gov/healthservices/health/data/~/_media/health/publichealth/documents/indicators/ChronicIllness/CurrentAsthmaAmongChildren.ashx)
9. U.S. Global Change Research Program, *2014 National Climate Assessment: Indigenous Peoples* (2014). <http://nca2014.globalchange.gov/report/sectors/indigenous-peoples>.
10. Gautam, M. R., K. Chief, and W. J. Smith, Jr. *Climate change in arid lands and Native American socioeconomic vulnerability: The case of the Pyramid Lake Paiute Tribe* (2013). *Climatic Change*, 120, 585-599,
11. U.S. Global Change Research Program, *2014 National Climate Assessment: Indigenous Peoples* (2014). <http://nca2014.globalchange.gov/report/sectors/indigenous-peoples>.
12. Tacoma-Pierce County Health Department. *2015 Health Equity Assessment*, (2015). <http://www.tpchd.org/files/library/f0fee2b5bf1a197f.pdf>.
13. Got Green and Puget Sound Sage, *Our People, Our Planet, Our Power* (2016). [http://gotgreenseattle.org/wp-content/uploads/2016/03/OurPeopleOurPlanetOurPower\\_GotGreen\\_Sage\\_Final1.pdf](http://gotgreenseattle.org/wp-content/uploads/2016/03/OurPeopleOurPlanetOurPower_GotGreen_Sage_Final1.pdf).
14. Gautam, M. R., K. Chief, and W. J. Smith, Jr. *Climate change in arid lands and Native American socioeconomic vulnerability: The case of the Pyramid Lake Paiute Tribe* (2013). *Climatic Change*, 120, 585-599,
15. U.S. Global Change Research Program, *2014 National Climate Assessment: Indigenous Peoples* (2014). <http://nca2014.globalchange.gov/report/sectors/indigenous-peoples>.
16. U.S. Department of Health and Human Services, *Community Resilience* (2015). <http://www.phe.gov/Preparedness/planning/abc/Pages/community-resilience.aspx>.
17. Morton, M. and Lurie, N, *Community Resilience and Public Health Practice* (2013). *Am J Public Health*. 103(7): 1158–1160. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682626/>.