

Promoting Environmental Justice

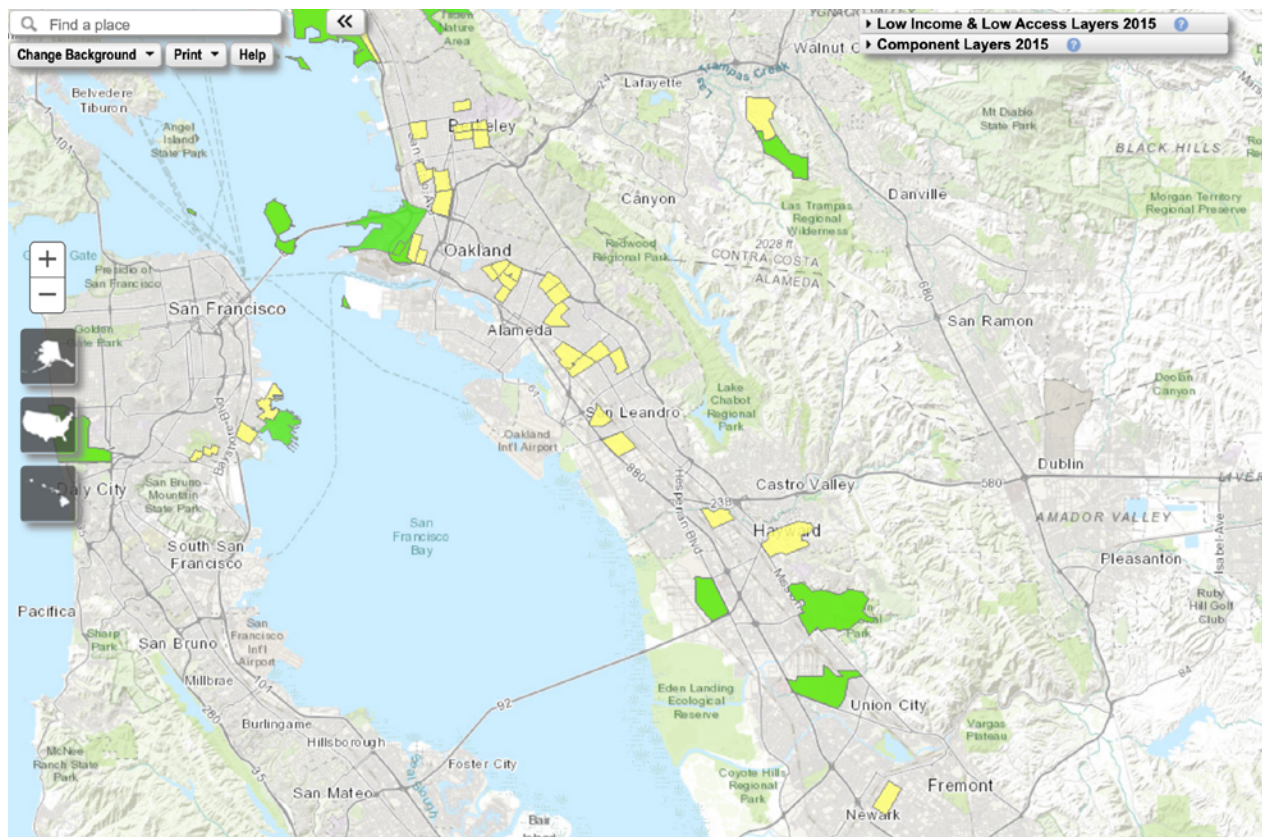
HIGH SCHOOL READINGS

Environmental risks and impacts disproportionately affect low-income communities and Black, Indigenous, people of color, and ethnic minorities around the world. **Environmental justice** is a global movement that recognizes that environmental, health, and racial and social justice issues are connected. Environmental justice seeks to ensure equal protection from environmental hazards and equal participation in decision-making. The U.S. Environmental Protection Agency (EPA) defines environmental justice as: “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

Environmental injustice manifests in many ways, in both urban and rural communities, all around the world, and for a variety of reasons. Poor urban planning, racism, government and business policies and practices, and unsustainable energy extraction and production all contribute to and uphold environmental injustice. With more urbanization, more populations displaced from climate-fueled events, and wealthier nations consuming more resources per capita, how can we advance environmental justice and create a more just and sustainable world?

Food Deserts

In many neighborhoods around the world, people lack access to healthy and affordable food. These places are called [food deserts](#). Studies show they are most often located in low-income areas, both urban and rural, and in neighborhoods with predominately Black and Hispanic households.¹ There are many ways to define a food desert.



USDA's "Food Mapping Atlas", showing food desert locations in the U.S. Photo from U.S. Department of Agriculture.

In the U.S., the government looks at the distance to a supermarket, the number of supermarkets in an area, household access to a vehicle, and household income, which can determine if one can afford healthy food. Studies have found that there are more fast-food restaurants, convenience stores, and high-calorie food options in lower-income neighborhoods.²

This lack of access to healthy food puts people at greater risk for many health issues, including obesity, diabetes, and cardiovascular diseases.³ [Discriminatory housing policies](#) have shaped U.S. cities, directly influencing where supermarkets are, or are not placed. However, many food activists point out that policymakers focus too much on big supermarkets and outside interventions as solutions. They say this thinking ignores the role and potential of ethnic food markets in supplying communities with healthy and culturally appropriate foods.⁴ [Solving the food desert problem](#) must not only address affordability or distance to stores, but understand culture, language, and community social ties and needs to ensure solutions serve and benefit the community. [Urban populations have increased rapidly](#) in the past several decades, as more people move to cities. Creating inclusive and sustainable cities means addressing food deserts.

Use [this mapping tool](#) by the USDA to locate food deserts throughout the U.S. and [listen to Toni's story](#) (3 minute video) from Washington, D.C.

1 [Brooks, K. \(2014\)](#). Research shows food deserts more abundant in minority neighborhoods. John Hopkins Magazine.

2 [Hilmers, A., Hilmers, D., & Dave, J. \(2012\)](#). Neighborhood disparities in access to healthy foods and their effects on environmental justice. American Journal of Public Health, 102(9), 1644-1654.

3 [Story, M., Kaphingst, K., Robinson-O'Brien, R., & Glanz, K. \(2008\)](#). Creating healthy food and eating environments: Policy and environmental approaches. Annual Review of Public Health, 29, 253-272.

4 [Joassart-Marcelli, P., Rossiter, J.S., & Bosco, F.J. \(2017\)](#). Ethnic markets and community food security in an urban "food desert". Environment and Planning A, 49(7), 1642-1663

[Bukenya, J. \(2018\)](#). The importance of ethnic food stores in identifying food deserts: A case study of Huntsville, Alabama. Journal of Food Distribution Research, 49(1), 56-62.

Climate Migrants

Climate change not only makes certain parts of the world less livable, but disproportionately impacts vulnerable communities and nations with fewer resources.¹ Over 68 million people were forcibly displaced in 2017, more than at any time in human history.² **Approximately one-third were displaced** from “sudden onset” environmental events, like floods, hurricanes, or fires. Many people also migrate from the impacts of “slow onset” events, such as desertification, ocean acidification, changing rain patterns, sea-level rise, or biodiversity loss.

These climate-fueled events destabilize peoples’ living conditions, livelihoods, and food security. It is difficult to estimate how many people may be displaced by climate change because **the links between migration and environmental causes are complex**, and may also involve individual, economic, social, and political causes. The majority of the world’s climate migrants are **internally displaced**, meaning they stay within their country’s borders. Just over 143 million people in Sub-Saharan Africa, South Asia, and Latin America could be displaced within their own country by 2050, according to the World Bank’s estimates.³ Other countries face the displacement of entire populations, mostly due to rising sea levels, like the Pacific island nation of Kiribati. **Displacement and migration can be a greater burden on female migrants** as well as **LGBTQI+ climate migrants**, who often face discrimination, violence, and stigmas. This can make accessing temporary shelters, relief resources, and recovery more difficult or impossible in sudden onset events. While the phrase “climate refugees” is often used when discussing these populations, **people fleeing environmental causes** can’t legally become refugees under international refugee law.



Displaced people fleeing Sindh
stream into Balochistan.
Photo by the Climate Vulnerable
Forum on Flickr (CC BY 2.0)

As climate change impacts people who are often the least equipped to adapt, the world must address the unique challenges faced by climate migrants, and their origin and destination locations. **Many of the most vulnerable places** are also where population growth is expected to grow rapidly in the coming decades, which can strain resources and create challenges to disaster response. **Listen to the stories** of a community in the Indian Sundarbans, one of the most vulnerable areas to climate change in the world.

1 Nazrul Islam, S. & Winkel, J. (2017). DESA Working Paper No. 152. Department of Economic & Social Affairs, United Nations.

2 Podesta, J. (2019, July 25). The climate crisis, migration, and refugees. Brookings Institute.

3 Rigaud, K., de Sherbinin, A., Jones, B., Bergmann, J., Clement, V., Ober, K., Schewe, J., Adamo, S., McCusker, B., Heuser, S., & Midgley, A. (2018). Groundswell: Preparing for international migration. The World Bank.

Placement of Hazardous Waste Sites

Hazardous waste is anything dangerous or potentially harmful to human health. It can be solid, liquid, or gas. Hazardous waste sites include many places: manufacturing facilities, oil refineries, processing plants, and mines. They also include places that treat, store, or dispose of hazardous material, such as waste transfer stations, landfills, or incinerator sites. **Hazardous waste sites are most likely to be placed** within or near communities of color and low-income neighborhoods. In the U.S., 70 percent of **Superfund toxic sites** on the National Priorities List are located within one mile of federally assisted housing.



Displaced people fleeing Sindh stream into Balochistan. Photo by the Climate Vulnerable Forum on Flickr (CC BY 2.0)

These areas are often referred to as **“sacrifice zones”** ¹, communities that shoulder the burden of exposure to these toxins. These waste sites pollute air, land, and water, and are linked to health risks like cancer and heart disease.² From **“Cancer Alley”**, impacting Black communities in Louisiana, to **toxic waste sites in close proximity to Roma communities in Europe**, this problem exists all over the world, where discrimination, racism, and poor urban planning result in the placement of toxic sites within these communities. The modern-day environmental justice movement grew from efforts to address this problem, starting with activists like **Hazel Johnson** (“the Mother of the Environmental Justice Movement”) working to clean up the Southeast Side of Chicago over 40 years ago to **students today taking action** against a planned waste management facility near their school. You can see the map of **National Priority Superfund Sites here** or explore placement of waste management sites on the **EPA’s EJ Screen map here**.

1 Lerner, S. (2011). Sacrifice Zones: The front lines of toxic chemical exposure in the United States. Environmental Health Perspective, 119(6), A266.

2 Brender, J., Maantay, J., & Chakraborty, J. (2011). Residential proximity to environmental hazards and adverse health outcomes. American Journal of Public Health, 101, S37- S57 AJPH.2011.300183

Effects of the Fossil Fuel Industry

While use of renewable energy is increasing, most of the world's energy still comes from fossil fuels: coal, natural gas, and oil. As the world population grows, so does the demand for energy to sustain current lifestyles. Along with ecosystem destruction and rising greenhouse gas emissions, fossil fuel extraction and use are linked with numerous negative social and health impacts.

Hydraulic fracturing (also called “fracking”) is a process of extracting natural gas or oil from “unconventional reservoirs” deep inside the ground, most often shale rock. However, it can pollute local water sources, and most active fracking wells are in low-income areas.¹ Refining oil and burning coal also contribute to



Oil drilling in North Dakota.

Photo By Tim Evanson on Flickr (CC BY-SA 2.0)

outdoor (ambient) air pollution that is linked to cancer, strokes, and a variety of cardiovascular diseases.² Concentrations of toxic air, especially with very fine particulate matter (PM 2.5) that causes health problems, is more often found in communities of color and low-income areas.³ Drilling for oil can also harm local community health, as students from

UCLA spotlighted [when they interviewed Los Angeles residents](#) who live near these wells.

Strong domestic support for fossil fuels in many countries continues their use. As population growth and urbanization increase demand for energy, re-imagining our energy production system will require bold thinking, activism, and policy changes that address economic, social, and environmental issues to ensure environmental justice for communities disproportionately impacted by the industry's operations.

Explore the [Blockadia Map](#) to locate and learn about communities resisting fossil fuel sites around the world. Opposition to the proposed construction of the Dakota Access Pipeline, which would cross under multiple U.S. states and Cheyenne River Sioux Tribe and Standing Rock Sioux Tribe land and water resources, is ongoing, [with recent victories for opponents to the pipeline.](#)

1 [U.S. Environmental Protection Agency. \(2016\).](#) Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States (Final Report). U.S. Environmental Protection Agency, Washington, DC. EPA/600/R-16/236F;

[Ogneva-Himmelberger, Y., & Huang, L. \(2015\).](#) Spatial distribution of unconventional gas wells and human populations in the Marcellus Shale in the United States: Vulnerability analysis. *Applied Geography*, 60, 165-174.

2 Word Health Organization (2018, May 2). Ambient (outdoor) air pollution.

3 [Mikati, I., Benson, A., Luben, T., Sacks, J., & Richmond-Bryant, J. \(2018\).](#) Disparities in distribution of particulate matter emission sources by race and poverty status. *American Journal of Public Health*, 108(4), 480-485.

Redlining

Redlining is the discriminatory practice of denying home loans or insurance to entire neighborhoods deemed “risky” investments due to racially motivated reasons. From the 1930s to the 1960s, the U.S. government used color-coded maps to guide these lending and housing decisions, labeling neighborhoods as “risky” and marking them red. Neighborhoods with “inharmonious” racial groups (non-white or immigrant residents) were categorized as such. While redlining was banned in 1968, the **damage was already done, solidifying segregated neighborhoods** with lower home values. This made it extremely difficult for people to build wealth, since **lower home values meant less wealth accumulation from the property’s value.** Consequently, people living in redlined areas were less likely to be able to afford to move to neighborhoods with higher home values. Redlining impacted Black households in particular and contributed to the racial wealth gap we see today. Redlined neighborhoods were often zoned for industry-polluting sites and major highways, further decreasing home values while polluting the local air, land, and water, and harming community health. Today, **redlined neighborhoods also face higher burdens** of extreme heat, which is only increasing due to climate change.¹ Many often also lack green spaces, such as public parks, squares, or tree-lined streets, which impact community well-being and property values.² Today, the majority of the U.S. population lives in urban areas, and urbanization is expected to increase throughout the world. As urban populations increase, think about how we ensure **inclusive and sustainable cities** that address the problems caused by redlining and the discrimination that sustained it.



Use the [**Mapping Inequality**](#) tool to see redlined neighborhoods in different U.S. cities. Then, watch or listen to Stephen DeBerry's compelling TED Talk (6 minutes), [**"Why the 'wrong side of the tracks' is usually the east side of cities"**](#).

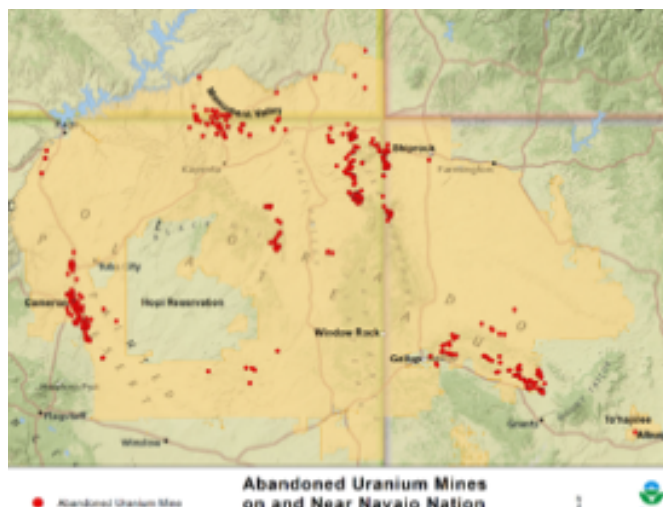
A HOLC security map of Philadelphia showing redlined neighborhoods. Photo courtesy of The National Archives.

1 [Hoffman, J., Shandas, V., & Pendleton, N. \(2020\).](#) The Effects of historical housing policies on resident exposure to intra-urban heat: A Study of 108 US urban areas. *Climate*,8(1), 12.

2 [Weaver, B. \(2019, March 19\).](#) Redlining and green space in Durham, NC. Nicolas School for Environment. Duke University.

Mistreatment of Indigenous Peoples and Land

Indigenous Peoples' relations to the land encompass diverse spiritual and cultural identities, beliefs, histories, and traditions. Across the world, colonialism, governments, and corporations have forced Indigenous Peoples from their ancestral lands, violated treaties, and destroyed sacred sites in order to extract natural resources and secure land for industrial expansion.



We see this with [decades of uranium mining and contamination](#) of Diné (Navajo) water in the U.S. Southwest, [ongoing oil-drilling bids, deforestation and destruction of Mapuche](#) land in Chile, and much more. These actions not only disrespect and violate Indigenous sovereignty, culture, and history, but have severe health consequences.

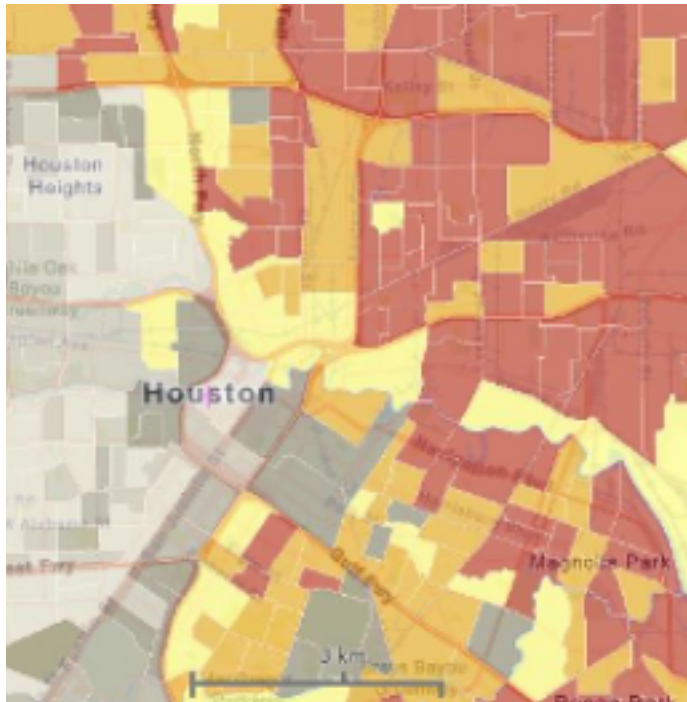
[Indigenous food sovereignty](#) is another movement addressing problems from land exploitation, agricultural practices, and economic policies that have impacted Indigenous food security and culture.

[There are over 476 million distinct and diverse Indigenous Nations and communities around the world,](#) making up 6 percent of the global population. Many of which have been resisting and organizing against the forces and legacy of colonialism for centuries. Today, it is a global movement, from [Lyla June's food sovereignty activism in the U.S.,](#) to the [Uru Eu Wau Wau tribe defending their land](#) from the Brazilian government. [Listen to Chase Iron Eyes,](#) a member of the Oglala Sioux Tribe, speak about Native American land rights and history. As the world population grows, more natural resources taken from the earth will be needed to support the current demand for food, energy, and goods. How can we safeguard the rightful land, water, culture, and sovereignty of Indigenous Peoples while amplifying their voices and movements for justice?

Environmental Racism

Environmental racism reinforces environmental injustice. **Race is the most determining factor** (over class) when it comes to harmful environmental impacts and disparities. Whether it's **farmworkers continually exposed to toxic pesticides** from the agribusiness industry, **Roma communities living in degraded conditions** in Europe, or predominately Black neighborhoods **made vulnerable to hurricanes and flooding along the Gulf Coast in the U.S.**, environmental racism impacts the health and lives of communities of color around the world. The COVID-19 pandemic has further highlighted the impacts of environmental racism. **Air pollution puts communities at a higher risk of death from COVID-19**, and air pollution is more concentrated in Black, Indigenous, and other communities of color, with Black Americans exposed to 1.5 times more harmful PM 2.5 particulates.¹

A variety of stakeholders uphold these systems of power, and solutions will also require **institutional, or systemic**, level changes. Politicians and policymakers, urban planners, developers, corporations, academic research institutions, community members, voters, students, and activists all have a role in undoing environmental racism. A growing global population increases the demand for energy and raw materials needed to sustain current lifestyles. The impacts from these industries, like air pollution from oil refineries, coupled with environmental racism, like discriminatory urban planning, have disproportionately harmed communities of color.



Use the [**EPA's EJ Screen Tool**](#) to map environmental injustices in different U.S. cities. You can view community demographic data by neighborhood and related environmental risks.

U.S. EPA's [**"Environmental Justice Screening and Mapping Tool"**](#)

Photo: U.S. Environmental Protection Agency