

Migration and Climate Refugees

In what ways are climate refugees different from political refugees?

It was September 8, 2017, two days after Hurricane Irma devastated the island nation of Barbuda, and the island's entire population of 1,800 was leaving behind homes, livestock, and livelihoods to evacuate to an uncertain future in neighboring Antigua. Irma's 185 mile-an-hour winds had damaged an estimated 90% of Barbuda's structures and taken out the infrastructure for all communications, power, and water, rendering the island uninhabitable (Figure 5.C). Prompted by the threat of a Category 4 hurricane on the heels of Irma, the prime minister ordered a complete evacuation, and for the first time in modern history, the island was devoid of people.



▲ **Figure 5.C** An Island Home Destroyed in One Day

Barbuda's pristine beaches and tropical climate had once made it a popular tourist destination. In less than a few hours, the force of Hurricane Irma had rendered it uninhabitable.

Though the Barbudan people experienced a devastating hardship, they found refuge in Antigua, a neighboring island of their sovereign nation of Barbuda and Antigua. The migration of the Barbudan population constituted an "internal displacement," similar to the migration from Louisiana to Texas in the aftermath of Hurricane Katrina. According to the United Nations, global displacement due to climate has averaged 21.5 million people per year over the past decade: more than twice that of displacement due to conflict and violence! Most of those displaced people either return home eventually, as did most of the Barbudan population, or they remain internally displaced, as did 100,000 New Orleans, Louisiana residents when they permanently settled in Houston, Texas after Hurricane Katrina. However, a very large subset of people displaced by climate emergencies are forced to emigrate beyond country borders to seek safety.

What happens when refugees cross international borders in the wake of a climate crisis? This new category of immigrants, termed *climate refugees*, comprise "people forced to flee their homes due to climate-related crises: including flooding, drought, wildfires, storms and sea level rise," according to the World Economic Forum. Climate crises are often compounded with related hardships, including shortages of critical resources such as food and clean drinking water, which can push people from their homes and across international borders seeking refuge. Because climate refugees have no legal status under international law, they are particularly vulnerable to human rights violations and exploitation, as their citizenship benefits end when they step across the border. Traditional refugees, who seek asylum from persecution due to race, religion, nationality, membership in a particular social group or political opinion, are granted international protection by the United Nations in accordance with a 1951 Refugee Convention. Climate refugees do not fit this 1951 definition and therefore are not granted any special protections. Like traditional refugees, however, climate refugees face untold challenges, having left behind an uninhabitable homeland.

What do climate refugees have to do with environmental justice? In many cases, countries most heavily impacted by climate change are those who contribute the fewest emissions. Take Bangladesh, for example. This southeast Asian nation is extremely vulnerable to climate change due to its low elevation (two-thirds of the country is less than 5 m above sea level), and its dense population (15 million people live in the coastal region). Displacement due to flooding and cyclones is increasing, and projections of sea level rise suggest that 11% of the country will be underwater by 2050. But are they contributing to their own demise by adding to climate change? The per capita ecological footprint of Bangladesh is 0.8 gha: less than 10% that of the typical American at 8.1 gha. Clearly, the country is disproportionately feeling the impacts of the emissions of the world's wealthiest countries.

What does the future hold for such refugees? The number of climate refugees is likely to continue to increase. The Ecosystem Threat Register, developed by Australia's Institute for Economics and Peace, predicts that 1.2 billion people could be displaced by climate change impacts by 2050. The United Nations has begun to recognize that its 1951 refugee definition is inadequate to deal with the intensifying push factor of climate change. In 2018, the UN adopted the Global Compact on Safe, Orderly and Regular Migration, which observed that climate was responsible for large-scale migration of people and suggested that governments should assist climate refugees with visas and relocation options if return to their home countries was not possible. Greater clarity and stronger protections will be needed to contend with this growing environmental justice issue.

Environmental Justice & You

- What challenges might internally displaced people face after a climate disaster? How might this differ for climate refugees who must cross international borders to safety?
- List several challenges that might be associated with pre-emptively relocating people who live in areas vulnerable to the effects of climate change? How might these be resolved?
- Do you think that wealthy nations that emit disproportionately more of the world's greenhouse gases have any added responsibility to take in climate refugees? Explain.
- Immigration is a hot button issue in many countries. What are some of the consequences of immigration for the host country? Identify both positive and negative consequences. What might be some of the consequences of emigration for the country losing its people?
- Climate models predict even more displacements in the future. How can the world prepare for this special new category of immigrant in the least disruptive manner? Discuss options for climate change mitigation and adaptation that might help.

Black Birders Week

Why do we need a Black Birders Week?

It happened early afternoon on Memorial Day, in New York City’s Central Park in 2020. A Black bird-watching enthusiast, Christian Cooper, was reported to local authorities by a White woman who stated that he was threatening her life when he asked her to put her dog on a leash. The exchange, posted on Twitter, eventually garnered over 40 million views. One of those viewers was then graduate student Corina Newsome at Georgia Southern University (GS). She and her colleagues sprang into action to organize the first ever Black Birders Week. At the time, Corina was conducting research on seaside sparrows for her master’s degree in Biology at GS and had firsthand knowledge of the barriers that have traditionally kept under-represented groups from pursuing careers in environmental fields (Figure 8.A). She and her co-organizers were compelled to use the Central Park incident as a rallying cry to begin to educate the birding community and break down racial barriers.



▲ **Figure 8.A Black Birders Week**
Corina Newsome, one of the organizers of Black Birders Week, conducted research on seaside sparrows along the Georgia coast for her master’s degree. Her thesis was titled “Predation Threat in a Variable Landscape: Connecting Predation Risk to Nesting Success for the Seaside Sparrow.”

Black Birders Week was a virtual event, hosted primarily on Twitter. The goals of the event, as stated by Corina, were to

- 1. counter the narrative that the outdoors are not the place Black people should be,
- 2. educate the birding and broader outdoor-loving community about the challenges Black birders specifically face, and
- 3. encourage increased diversity in birding and conservation.

The first Black Birders Week ran from May 31 to June 5, 2020. It included themed days of virtual activities and livestreamed panels ranging from #PostABird to #AskABlackBirder to #BirdingWhileBlack. It brought people from around the world together in a virtual community to celebrate and support diversity in nature-based activities and professions and to push back against the racism that keeps under-represented groups out. The event struck a chord in the broader community and gained further visibility in 2021.

Corina Newsome was hired by Georgia Audubon as their Community Engagement Manager in 2020, where she has continued with her work of opening doors into nature for under-represented communities. The issue she and her colleagues identified, “that the outdoors are not the place Black people should be,” is representative of the broader challenges that our National Park Service faces in promoting the use of public parks and wild spaces. In 2020, U.S. National Parks hosted 237 million visitors and, as has been true historically, these visitors were disproportionately White. In fact, a 2014 study showed that fewer than 1% of park visitors were Black as compared to 13% of the US population as shown by the 2010 U.S. Census. Hispanics were also under-represented: making up just 7% of park visitors and 16% of the US population. A 2020 report on participation in outdoor activities conducted by the Outdoor Industry Association also suggests that adults who were not exposed to outdoor recreation as children were far less likely to participate in outdoor activities as an adult.

Environmental Justice & You

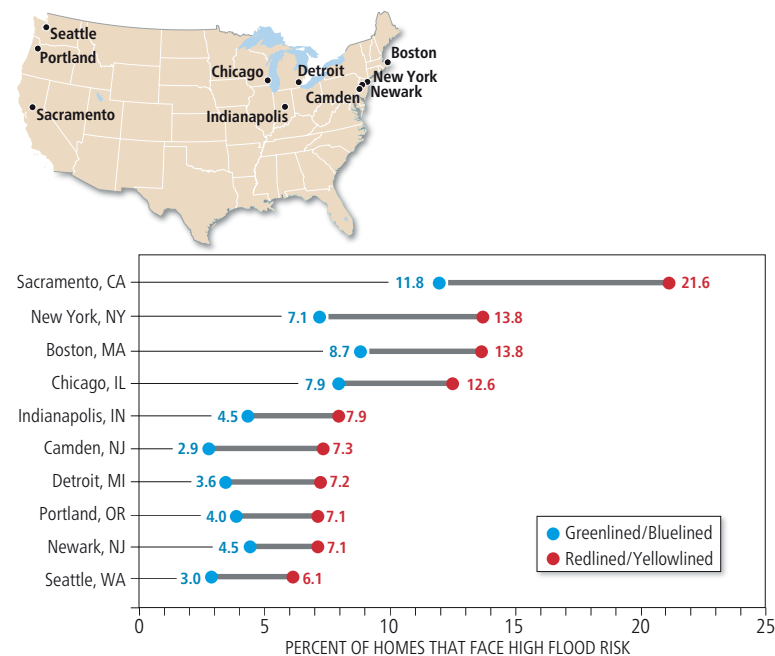
- An absence of role models working in a particular field can make it difficult for people in under-represented groups to imagine themselves in those roles. Can you think of some examples of fields that are lacking in diversity? Do you have a role model that looks like you? Did this play a role in your academic path?
- Do you think that role models are important for encouraging participation in outdoor activities generally? Why or why not?
- Environmental scientists see the value of biodiversity in natural communities. In what ways can supporting and recruiting *human* diversity benefit conservation?
- Propose several steps that might be taken to enhance diversity in the field of conservation. Do you think that efforts like Black Birders Week can help to achieve this goal? Why or why not?

Assessing Flooding Risk in the Face of Climate Change

What does the impact of underinvestment in U.S. cities look like as climate change accelerates?

Climate change has resulted in an increase of rainfall and flooding and a higher frequency and intensity of storms in certain areas of the United States. Coupled with sea-level rise, these changes have exposed significant vulnerabilities in areas already prone to flooding, such as coastal communities, but also inland along bodies of water that cannot absorb the sudden influx of water from these events.

While the effects of a supercharged storm or hurricane affects everyone in its range, some communities have been made more vulnerable to flooding than others. A recent study of large cities in the United States found that 8.4% of neighborhoods in areas that had been yellow- or redlined in the 1930s (see Module 2.4) were at high risk of flooding relative to 6.9% of those in blue- and greenlined communities. Essentially there is a 1.5% gap overall in flood risk between such neighborhoods. Several U.S. cities show an even greater gap: Sacramento, New York City, Boston, and Chicago range from 4.8% to 9.8% in discrepancies for flood risk among neighborhoods of high and low investment, as mapped out in the 1930s (Figure 9.C).



▲ **Figure 9.C Top Ten Cities with Greatest Share of Homes Put at Risk by Yellow- and Redlining**

Redfin, a real estate brokerage firm, analyzed flood risk data from the First Street Foundation and noted a higher risk for homes that were located in yellow- and redlined areas.

Data from: First Street Foundation and Home Owners' Loan Corporation

Why is this an environmental justice issue? Today, 58% of households in red- and yellowlined neighborhoods are non-White as compared with 40% in blue- and greenlined neighborhoods. So 90 years later, property values are still higher in the communities that were deemed desirable for investment in the 1930s, and as a consequence, they have received infrastructure upgrades that make them more resilient in the face of periodic flooding. Flooding mitigation can be as simple as the installation of curbs and gutters that separate streets from homes and funnel floodwaters away from personal property, as well as underground storm drains that replace the open ditches that once received the overflow during periods of flooding. In addition, investment in trees and greenspace allows for more rapid uptake of floodwaters through the natural process of transpiration, as root systems absorb the water. The non-White neighborhoods that did not receive these upgrades suffer greater consequences from climate-induced flooding.

The environmental justice impacts of climate-induced flooding along U.S. coasts are particularly stark: Hurricane Katrina heightened awareness of these inequities in 2005. Black communities experienced significantly more costly damage from Hurricane Katrina: four of seven New Orleans zip codes that endured the costliest flood damage were composed of 75% or more Black residents. See [Figure 9.D](#) to see what the yellow- and redlining of New Orleans looked like in the 1930s.



▲ **Figure 9.D Assessing Financial Risk in New Orleans**
This map shows how the Federal Home Loan Bank Board assessed the investment risks for the city of New Orleans in the 1930s. Clearly, the areas most in need of mitigation against flooding of the Mississippi River were least likely to get financial aid.

In ways that we are now beginning to document and recognize, historical racism has resulted in environmental injustices that are growing more apparent with climate change. In his first week in office in 2021, President Joe Biden signed an executive order to combat climate change. It included an environmental plan that will begin to mitigate some of these environmental justice disparities. The plan, dubbed Justice40, directs 40% of spending on climate change mitigations including clean energy and infrastructure to disadvantaged neighborhoods. So instead of focusing protection on just the highest-value properties, the plan will also invest in the most vulnerable communities. An “Environmental Justice Scorecard” will record actions of federal agencies toward this initiative and will thus provide transparency and accountability moving forward.

Environmental Justice & You

- Consider your hometown. Have you noticed an increased intensity in storms in recent years with flooding in places that have not flooded before? What areas are vulnerable to flooding during storms? Why?
- Does your neighborhood experience flooding during heavy rain? What kinds of flood control measures are in place to mitigate flooding?
- Do you think that Justice40 is enough to erase historical racism when it comes to the environment? What other measures might be helpful?
- What other impacts of climate change might be subject to racial disparities? Explain.

Credit Where Credit Is Due

What are the environmental and financial consequences of racial discrimination in agriculture?

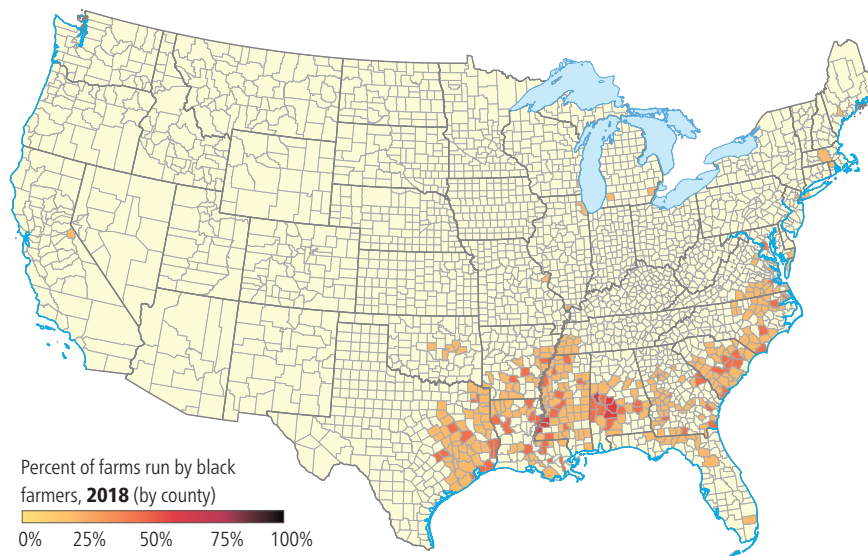
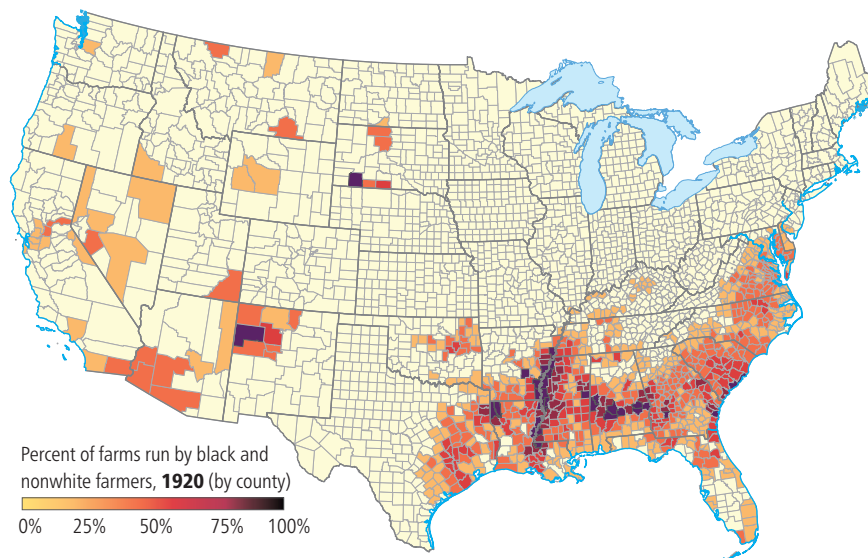
The Reconstruction that followed the Civil War opened up opportunities for management and even ownership of farmland by former slaves in the southeastern United States. But these opportunities also presented formidable challenges. Poor farming practices and cultivation of single crops like cotton and tobacco severely reduced soil fertility in most places. Furthermore, Black farmers often managed land as sharecroppers, paying excessive rents to White landowners. By 1900, Black families managed nearly 50% of the farmland in many southern states, but farming for these folks was still a precarious enterprise at best. Black farmers usually could not afford mineral fertilizer for their land, and they were subjected to social and economic barriers as Reconstruction policies were displaced by Jim Crow racism.

This situation was first and foremost on the mind of George Washington Carver when he joined the faculty of the newly formed agricultural school at Alabama’s Tuskegee Institute (Figure 12.A). Carver’s name is most often associated with the development of the peanut as a commercial crop, but that was just part of a much bigger agenda aimed at making farming truly sustainable. He encouraged Black farmers to look at their land as an intricate system that could provide most of their daily needs and decrease their dependency on others. Because peanut plants fix nitrogen, they required little fertilizer. Agricultural waste could be composted and tilled into soils further increasing fertility. Cover crops could reduce soil erosion and provide additional sources of food and income. By investing in their land, Black families were investing in themselves.



▲ **Figure 12.A** George Washington Carver
Carver gave Black famers a means of staying on their land, by having them replace cotton and tobacco crops with peanuts. He even provided a list of 300 ways to use them.

Despite Carver’s efforts, discrimination, the Great Depression, and competition from large corporate farms were too often insurmountable barriers. In 1920, there were nearly 950,000 black run farms in the United States; today, there are fewer than 35,000 (Figure 12.B). But there is growing interest in reversing this trend. A growing number of nonprofit conservation organizations, such as the Black Family Farm Trust, are providing guidance and financial assistance to Black landowners. Organic farming is particularly well-suited to small acreage farms and provides an ideal market niche that is attracting people of color back to the land.



▲ **Figure 12.B A Long Row to Hoe**

(A) County level census data from 1920 show close to 1 million farms run and maintained by Black farmers. The majority of those were located in the South, while in the West, many non-White farmers were Native American or Asian. (B) Today less than 2% of the nation's farms are run by Black farmers, largely concentrated in the South.

Data from: USDA National Agricultural Statistics Service Information. <https://www.nass.usda.gov/>

In late 2020, the Justice for *Black Farmers Act* was proposed by Senators Cory Booker, Elizabeth Warren, and Kirsten Gillibrand. This bill would permit Black farmers to reclaim as many as 160 acres apiece through federal land grants. It attempts to redress the long injustices associated with U.S. Department of Agriculture's policies that discriminated against Black farmers by withholding payments and loans.

Environmental Justice & You

- Why were large amounts of fertilizer required for crop production in many parts of the Southeast following the Civil War?
- How does the issue of credit availability for farmers relate to racial justice?
- Explain the role of each of the JEDI principles in the history of farm management by people of color in the southeastern United States.

What's in a Name?

If an organism’s common or scientific name derives from a xenophobic or racist term, does it affect how you think about that organism?

Figure 13.29 shows the photo of the gypsy moth, an invasive species that has caused much damage to forests in the northeast United States. The text and caption have now been changed to identify this pest by its scientific name, *Lymantria dispar*, addressing an ethical issue that is quite common in scientific literature.

The Entomology Society of America (ESA), as part of its Better Common Names Project, has removed this moth’s common name from its website and will no longer sanction its use in any of its publications going forward. Why? Because the word gypsy is readily associated with the Roma and should not be applied in a dehumanizing way to a destructive moth/caterpillar. The ESA does recognize the value of having common names to promote public engagement, so it will work with the public and scientific community to find a new name, one that does not violate the principles of diversity, equity, and inclusion.

The problem of using racist or xenophobic terms in names can also be found in the scientific names applied to species. Consider how many of these names were determined. It is the legacy of Western society that much of the early work done in scientific naming was done by White Christian men, who have been historically recognized as experts. Meanwhile, the deep, long-standing knowledge of Black, Indigenous, and other people of color for the flora and fauna of their lands was ignored or exploited. Hence ethically compromised researchers or historical figures have the honor of having species named after them. For example, 18th century botanist John Bartram named a tree he discovered in Georgia *Franklinia altamaha* in honor of his good friend Benjamin Franklin and the Altamaha River where it was found. This is beginning to change.

Recently, a new orchid species, a member of the *Epidendrum* family, was discovered in the Guiana Highlands of Venezuela and Brazil. The honor of naming the new species was given to the Indigenous people who live in the region. Members of the Pemón Arekuna community of Paruima were asked to name the orchid by the researcher who discovered it, Mateusz Wrazidlo, a PhD student who studies in Poland. They chose the name *Epidendrum katarun-yariku*. In their Indigenous language, “katarun” means high, and “yariku” means flower (Figure 13.A). The name “high flower” aptly suits this species found only on the summits and in the upper foothills of the table-top mesas known as tepui.



▲ **Figure 13.A A Meaningful Name**
Shown in the foreground is a photo of the newly discovered orchid, *Epidendrum katarun-yariku*. It was named by the Indigenous people who share its home near the Acopan Tepui in Venezuela, shown in the background.



Environmental Justice & You

- Naming pests, parasites or infectious diseases for a particular place can be harmful, racist, and xenophobic. Can you give some examples of this problem? (*Hint:* Think of common names for viruses.)
- How would you name an organism that is in some way considered dangerous?
- What is the significance of including Indigenous people and using their language for this newly discovered species?
- How can the process of naming flora and fauna, including microorganisms, shape perceptions and advance justice?

Opting in to Community Solar

Who gets to share in the “free” energy supplied by the sun?

We often hear about the benefits of using solar power in the news (and this text). If you live in a region where the major electricity provider has a large proportion of renewable energy in the power mix, then you already have a lower carbon footprint from electricity. However, that is not the case for most people in the United States or the world.

Many people are obligated to get their electricity from fossil fuels, which, if they are environmentally minded, might cause them great concern. For a long time, the only meaningful solution to this problem was installing solar panels on one's home, often referred to as rooftop solar. It's not difficult to see why this becomes an issue of equity, given that a large proportion of people in the United States do not own their own homes. There are also many practical reasons why installing rooftop solar might be difficult, for example:

- A person lives in a large apartment/condo complex where an individual cannot install solar panels.
- A person might move frequently, so installing solar panels is impractical.
- A person does not own their home and a landlord may not support it.
- A person lives in a location where shade from buildings or trees prevents them from installing solar panels.
- A person may find that the upfront cost of installing solar panels is too high.

There is a new solution, gaining in popularity, which can help address this inequity. “Opt-in solar,” also referred to as community solar, enables people to get their electricity from solar regardless of their situation. In most states electricity providers must buy the power produced by solar panels that are connected to the local electricity grid. So people in communities or private businesses can work to promote solar projects that do not need to go on a residential roof. For example, a solar farm the size of several football fields may be built outside of a city or town (Figure 15.A). The solar power generated is then sold to the power company that supplies the community with electricity. Interestingly, this can be profitable because it is often cheaper to generate electricity with solar power than with fossil fuels.



▲ **Figure 15.A Community Solar**

Opting in to obtain electricity from a local solar farm is one way a person can “divest” from using fossil fuels.

To participate in this type of community solar, interested individuals must choose to opt in. Opting in means that they are committing to “getting their power” from the solar farm. Unlike rooftop solar, participants do not directly get that solar power, but their energy company does. End users still pay for their electricity, but they are reducing their carbon footprint by bringing renewable energy, instead of fossil fuels, into the energy mix. The cost to the consumer of these programs can vary, but many of them are cost neutral or even reduce the cost of electricity for the user.

Environmental Justice & You

- Check your local electricity suppliers, do they provide an option to opt into solar energy? What options are offered in your area?
- Would you support a community solar project even if you could not opt in?
- Can you think of other programs, similar to community solar, that could help promote environmental justice?

The Heat Gap: Disparities in Urban Heat Island Effect Across Racial and Socioeconomic Lines

Why is the urban heat island effect more extreme for low-income communities and communities of color?

Among weather-related hazards, extreme heat has resulted in the highest number of fatalities in the United States over the past few decades. Urban areas are particularly vulnerable to the effects of extreme heat due to proportionally large areas of heat-absorbing asphalt and concrete in the absence of cooling natural vegetation (Figure 16.A). Hence, urban areas are demonstrably hotter than neighboring vegetated areas (1–7 °F during the day and 2–5 °F during the night), exhibiting the heat island effect.



▲ **Figure 16.A Living in a World of Hard Top**
People who live and work in large cities, such as in New York City, are exposed to higher temperatures than their rural counterparts. Lack of vegetation can raise the temperature by more than 10 °F.

But scientists have recently determined that temperature disparities exist even within cities: in all but 6 of the 175 large cities studied, communities of color were exposed to higher temperatures than their White counterparts. The heat island effect in specifically Black communities was more than double that of White neighborhoods. Furthermore, when controlling for income, the disparity persisted: Black communities of equal income were still hotter than White communities.

Higher heat exposure may be uncomfortable, but it also results in worse health outcomes. Another recent study showed that the disparities in the urban heat island effect translate into higher rates of hospitalization during periods of intense heat and concurrent high air pollution. Residents of lower-income zip codes checked in to the hospital for heat-related illnesses at a significantly higher rate than those from higher income zip codes on days exhibiting combined high heat and air pollution. Higher temperatures are hence strongly correlated with more extreme illness.

So what underlies these disparities in the first place? Tree cover is one-third lower in communities of color than in White communities and 41% lower in neighborhoods of high poverty than low poverty. But why are trees so important? They provide multiple benefits, including cooling shade, flood control through transpiration and redistribution of water, CO₂ uptake, and pollution control. Urban neighborhoods without trees are as much as 7 °C (12.6 °F) hotter than adjacent neighborhoods (Figure 16.B).



▲ **Figure 16.B Urban Heat Islands Differentiated by Demographics**
The amount of vegetation in New York City maps to different surface temperatures and to differing demographics.
Data from: NASA and U.S. Census Bureau 2010.

Why do some neighborhoods have more trees than others? As described in Module 2.4, an effort to provide financial support to struggling cities in the 1930s led to the development of city maps drawn to indicate which neighborhoods were most desirable for investment. Banks were more likely to lend money for purchase and upkeep of homes and neighborhoods considered “safe” for development. Often, central city neighborhoods inhabited primarily by people of color and immigrants were “redlined,” meaning that they were deemed of low investment value. Consequently, banks did not lend money to invest in these neighborhoods and insurance coverage was denied. This deprived redlined neighborhoods of resources to maintain their trees and greenspaces, which we now know would lessen the heat island effect.

One of the challenges with documenting and remediating the disparities of the urban heat island effect is that the widely available satellite temperature measurements indicate surface temperature rather than air temperature, so they are not of a fine enough scale to pinpoint the neighborhoods that need remediation. Furthermore, the expense of deploying the extensive array of sensors required to document the problem in cities across the United States is prohibitive. Recently, NOAA (the National Oceanographic and Atmospheric Administration) has begun supporting networks of community volunteers in many cities across the United States to monitor temperatures on particularly hot days. These volunteers drive or bike through city neighborhoods with special temperature and humidity sensors to document variations on a street-level scale. This information can then be translated into fine-scale maps of the heat island effect, which can inform city planning efforts as to where to plant more trees and create new greenspaces. This will ultimately help protect citizens by determining neighborhoods experiencing the most extreme heat.

Environmental Justice & You

- Did you have trees and green space in the neighborhood in which you were raised? What value do you ascribe to them? Why?
- Urban trees increase property value but require some maintenance. How would you encourage low-income communities to invest in planting and maintaining trees?
- Often safety and vegetation are perceived as in direct conflict with each other; trees and greenspace are thought to obstruct views and to provide hiding places for criminal activity. How might you counter this argument against greenspace?
- In what ways might climate change further exacerbate the inequity of urban heat island effects?

The New Faces of the Climate Movement

How will young people face the unprecedented challenges created by a changing climate?

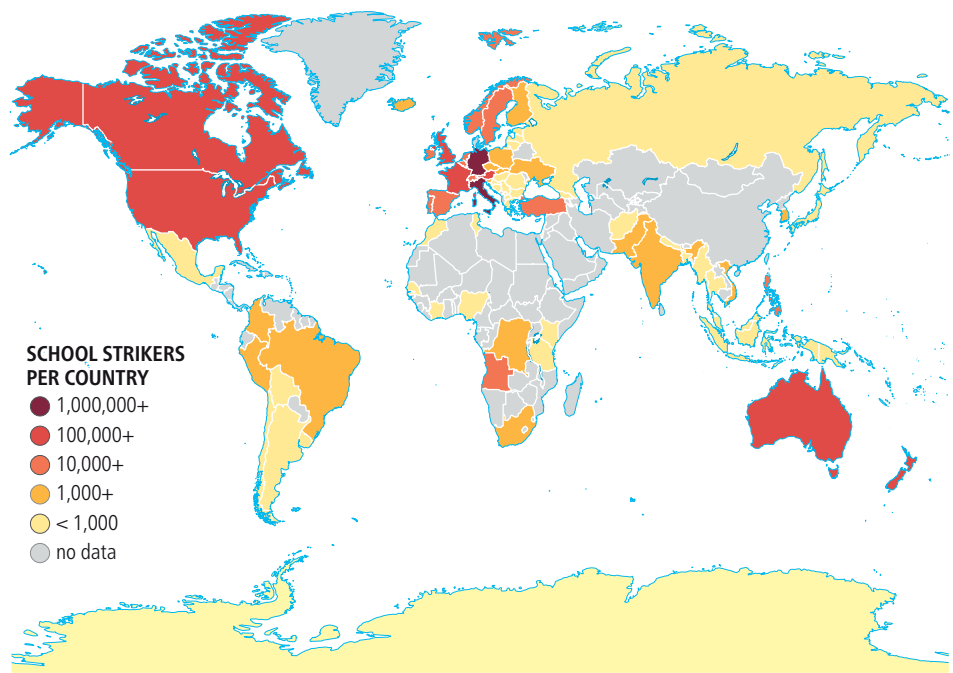
It is one the most wrenching ethical failures of modern societies and governments that it is the youngest generations who will be faced with solving the problems of an earth whose changing climate presents them with few good options to address a badly damaged environment. The most readily recognized face of what has become a global youth climate movement is Greta Thunberg, who at age 15 began taking days off from school to strike outside the Swedish Parliament. She held up a sign that read Skolstrejk för klimatet (School Strike for Climate). Thunberg posted a photo of her first strike day on Instagram and Twitter, with other social media accounts quickly taking up her cause ([Figure 19.A](#)).



▲ **Figure 19.A** Greta Thunberg

At fifteen, Greta Thunberg became one of the most recognized faces of what would become a global youth climate movement.

Inspired by her tenacity and passion, other students joined, striking in their local communities under the banner Fridays for Future. By the time Thunberg addressed the 2018 United Nations Climate Change Conference, student strikes were taking place every week somewhere in the world (Figure 19.B).



▲ **Figure 19.B Friday For Future**
School children make their presence felt.
Data from: <https://fridaysforfuture.org/what-we-do/strike-statistics/list-of-countries/>

In 2019, in a series of 4,500 strikes across over 150 countries, children came together to strike on two Fridays in September, the 20th and 27th. This Global Youth Climate Strike, made to coincide with the United Nations Global Climate Summit in New York, remains one of the largest climate strikes in history. Some of the faces of those who participated are shown in [Figure 19.C](#).



▲ **Figure 19.C Hope for the Future**
This series of images came from a single day of strikes, September 20, 2019. It's estimated that around 6 million people participated in 6,000 global events over the course of the week.

Environmental Justice & You

- What does achieving justice mean in the global context of climate change? How does it incorporate the principles of JEDI?
- How would you expect the issues of students from different countries and continents to vary?