

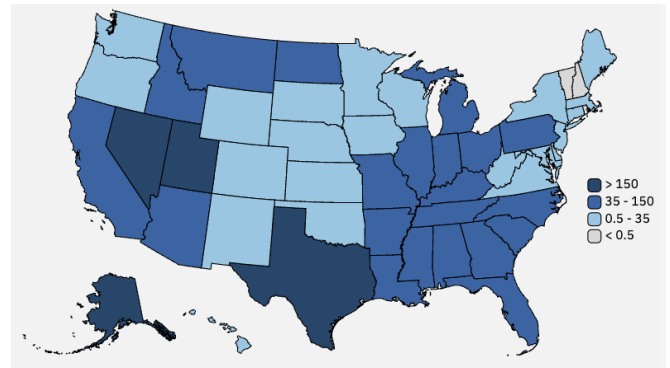
Environmental Justice

Environmental Justice (EJ) means the just treatment and meaningful involvement of all people in environmental decisions, ensuring full protection from disproportionate environmental and health hazards, and equitable access to a healthy, sustainable, and resilient environment.¹ Inspired by the Civil Rights movement, EJ became widespread in the 1980s at the intersection of environmentalism and social justice.² Environmental injustice is experienced through heightened exposure to pollution and corresponding health risks, limited access to adequate environmental services, and loss of land and resource rights.³ EJ and sustainability are interdependent—both are essential for an equitable environment.⁴

Built Environment

- Shifting urban demographics, lax permitting standards, and exclusionary zoning laws have concentrated racial and ethnic minorities in areas with higher levels of environmental degradation and reduced institutional support.³ Residents of degraded areas often cannot relocate due to sociocultural ties, financial constraints, and lack of land ownership.³
- People of color make up 42% of the U.S. population, but represent 57% of those living in counties with unhealthy levels of air pollution, and 53% of those in counties with the worst air quality.^{5,50}
- Drinking water contaminated by PFAS is a widespread public health concern. Community water systems (CWS) with detectable PFAS served Hispanic/Latino populations at rates 1.5–2 times higher than CWS without PFAS.⁶
- The Toxic Release Inventory (TRI) supports emergency planning and provides information about toxic releases.⁸ In 2010, 45% of those living within 2 mi of toxic waste facilities were people of color, compared to 28% further away.⁷ In 2022, 50% of those living within 1 mi of hazardous waste sites targeted for EPA cleanup were people of color.¹⁰
- Negative environmental factors compound social and economic conditions, leading to higher rates of chronic health issues—asthma, diabetes, and hypertension—in minority and low-income communities.¹¹ Minorities in the U.S. face an increased risk for infection, hospitalization, and death from COVID-19 compared to non-Hispanic white persons.¹²
- Due to uneven distribution, minority/low-income communities have far less access to green spaces than white affluent areas and fewer resources to maintain the ones they do have.¹⁵
- Availability of cheap land in disadvantaged urban centers has driven gentrification—raising property values¹³ and often leading to displacement, as well as social, economic, and cultural stress.^{3, 14}

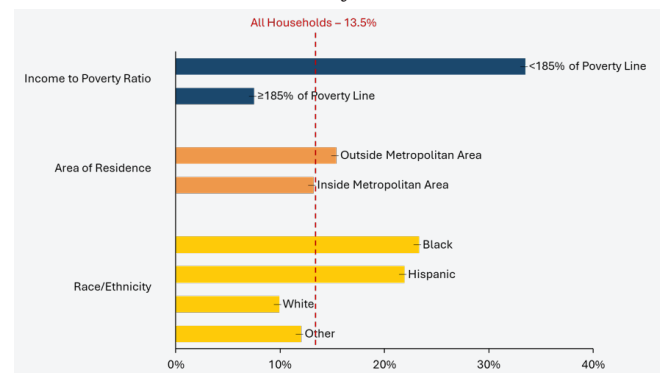
Toxic Release in the U.S. by State, 2022 (M lbs)⁹



Food

- In 2023, 13.5% of U.S. households experienced food insecurity, with rates consistently higher among Black and Hispanic households and in rural compared to urban areas.¹⁶
- Food-insecure households reported needing an additional \$22.37/person weekly to meet basic food needs. This totals \$32.2B annually across 47M people, an 8% increase from 2022.⁵¹ In 2022, the average U.S. household spent 13% of income on food; low-income families spent about 31%.¹⁸
- Limited access to nutritious food and irregular eating patterns lead to higher rates of obesity.¹⁷ Hispanic and Black children have higher obesity rates than White and Asian children.¹⁹
- 18% of the U.S. population has limited supermarket access due to poor transportation and uneven distribution of stores.²⁰

Prevalence of Food Insecurity in the U.S. 2022¹⁶



Energy

- Power plants and fuel extraction operations place a significant environmental burden on neighboring communities. Minority and low-income communities are disproportionately affected by these facilities and rarely included in decision-making.²¹
- In 2000, the average income of people living within 3 mi of a coal power plant was 15% below the national average.²² In 53% of power plant communities, the share of low-income residents exceeds the national average.⁵²
- Households self-identified as Black, Hispanic, or multiracial experience energy insecurity at disproportionately higher rates than households self-identifying as White or Asian.²³

- U.S. clean energy tax credits have been less accessible to low-income households due to affordability barriers.^{24, 25, 26} In 2023, taxpayers earning under \$50k received just 6% of residential clean energy credits and 9% of energy efficiency home improvement credits, while taxpayers earning over \$200k received 27% and 23% respectively.²⁷

Hydropower and Dams

- Dams threaten vulnerable populations such as indigenous people, by causing food insecurity, increased morbidity, and the loss of land and water access, jobs, and housing.²⁸
- Dam construction often displaces low income communities due to financial pressure from wealthier groups or investors.²⁸

Energy Poverty

- Globally, 685M people live without electricity, 80% of them live in sub-Saharan Africa. 2.1B people still use polluting fuels for cooking, largely in sub-Saharan Africa and Asia.²⁹
- Energy poverty stems from inequalities in income, energy prices, housing, and efficiency.³⁰ Low-income households spend 3 times as much of their income on energy than higher-income households, despite using less energy.³¹ Nearly 37M U.S. families suffer from energy poverty,³¹ leaving them vulnerable during periods of intense heat or cold.³⁰

Materials

Mining

- Roughly 3% of U.S. oil and NG reserves, 15% of coal reserves, and 37-55% of uranium reserves are on Indigenous land.³
- The U.S. imports more than 50% of its non-fuel minerals critical to construction, electronics, and energy generation.³²
- Artisanal and small scale mining accounts for 15-20% of global mineral and metal production, often using unsafe working conditions (e.g., child labor) and bad environmental practices (e.g., high mercury emissions).³³

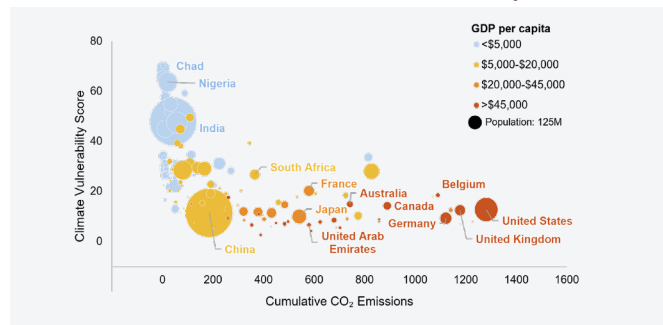
Electronic Waste

- In 2022, 62B kg of e-waste were generated globally; only 22% was recycled.
- E-waste accounts for just 5% of landfill volume but contributes 70% of landfill toxicity.³⁶ 800M kg of uncontrolled e-waste and used electronics was exported to low-income countries with informal dismantling practices, posing major health risks due to toxic exposure.³⁴
- The Americas, primarily the U.S., were responsible for 388M kg of these exports.³⁴ Up to 29% of the 40M computers retired in the U.S. were exported in 2010.³⁵
- 13M women and 18M children globally work in the informal labor sector to manage e-waste, exposing them to toxins.³⁷ Increased DNA damage and increases in still and premature births were found in those living in e-waste recycling towns.³⁹

Climate

- Though wealthy, developed nations like the U.S. continue to emit larger amounts of GHG per capita, developing nations experience the worst effects of climate change⁴ due to their limited resources and ability to adapt.⁴⁰
- People living in low-income communities, or closer to the coast and small island nations, are more vulnerable to climate change threats, such as flooding, severe storms, sea level rise, and storm surges.⁴⁰

Cumulative CO₂ Emission and Vulnerability⁴¹⁻⁴⁶



- Indigenous populations that rely on subsistence farming practices for food have limited options for adapting to climate change threats.⁴⁰
- Areas with poor healthcare infrastructure will be the least able to cope with catastrophic effects of climate change such as heat waves, droughts, severe storms, and outbreaks of waterborne diseases.⁴⁷

Solutions

- The U.S. Justice40 Initiative set a national goal in 2021 for disadvantaged communities to receive 40% of the benefits provided by federal investments in climate change and clean energy.⁴⁸
- The Inflation Reduction Act (IRA) provides resources for disadvantaged communities to reduce pollution, expand clean transit, increase access to affordable clean energy, and strengthen resilience to climate change.⁴⁹
- In 2025, the White House rescinded prior climate and environmental justice initiatives, including the IRA and the Justice40 initiative.³⁸
- Individuals can engage in and support bottom-up research models that address community environmental concerns and advocate for incorporating local knowledge alongside scientific observations.²¹
- Find Environmental Justice Data and Grant information here:
 - [Environmental Data and Governance Initiative](#)
 - [U.S. Climate and Economic Justice Screening Tool](#)
 - [Global Atlas of Environmental Justice](#)