Environmental Justice

Environmental Justice (EJ) is defined as the equal treatment and involvement of all people in environmental decision making. Inspired by the Civil Rights movement, EJ became widespread in the 1980’s at the intersection of environmentalism and social justice. 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. EJ and sustainability are interdependent and both necessary to create an equitable environment for all.

Built Environment

- The changing demographics of urban areas, loose permitting requirements, and exclusionary zoning laws have funneled racial and ethnic minorities into areas with a greater degree of environmental degradation and reduced support.
- When urban areas were developing across the country, zones reserved exclusively for residential purposes were often expensive. Meanwhile, mixed-use zones were more affordable but allowed residential and industrial buildings to be built side by side. This led to a higher population density in areas closer to environmental hazards.
- Residents of environmentally degraded areas do not or cannot move because of a lack of financial resources, ownership of current land, and sense of place.
- The Toxic Release Inventory (TRI) was created in 1986 under the Emergency Planning and Community Right-to-Know Act to support emergency planning and publicize information about toxic releases.
- On average, people of color comprise 56% of the population living in neighborhoods with TRI facilities, compared to 30% elsewhere.
- Availability of cheap land in urban centers has led to gentrification, an increase in property values that often makes the area unaffordable to existing (generally lower-income) residents. This leads to displacement as well as social, economic, and cultural stress.
- Green spaces improve the physical, social, and economic well-being of a community by providing places to exercise, socialize, and organize, while supporting stable community development.
- Due to uneven distribution patterns, minority and low income communities have far less access to green spaces than white, affluent communities and have limited resources to maintain the green spaces they do have.

Food

- In 2017, 11.8% of U.S. households experienced food insecurity at some point during the year – reducing their access to adequate food for an active, healthy lifestyle.
- In 2017, rates of food insecurity were higher than the national average for Black and Hispanic households and higher in rural versus urban areas.
- Food prices are higher and food quality is poorer in areas with higher rates of poverty.
- The average U.S. household in 2017 spent about 14% of its income on food; low-income families spent more than 30%.
- Hispanic and Black children have higher obesity rates than White children.
- In 2017, about 54.4 million people (17.7% of total U.S. population) had low access to a supermarket due to limited transportation and uneven distribution of supermarkets.
- A case study in Detroit found that households in poor Black communities were on average 1.1 miles farther from a supermarket than the poorest White neighborhoods.

Energy

- The presence of power plants and mining operations for fuel resources places a significant environmental burden on neighboring communities. Minority and low-income communities are directly and disproportionately affected by polluting facilities and are rarely included in discussions and decision-making processes regarding such facilities.
- The average income of residents living within three miles of a coal power plant in 2000 was over $3,000 less than the national average. A case study found that energy-efficient bulbs are less available and more expensive in higher poverty urban areas.

Hydropower and Dams

- Dams threaten vulnerable populations through loss of land and water access, jobs and homes; food insecurity; increased morbidity.
- Dam construction often displaces low income communities because they are incentivized by wealthier ones and private investors to build.
- Environmental concerns associated with hydropower include fish mortality, water quality impairment, alteration of natural landscapes and destruction of sacred Indigenous sites.

Fuel Poverty

- Nearly 16.2 million American homes suffer from fuel poverty, the inability to access or pay for adequate energy services. This makes them vulnerable to detrimental health effects during periods of intense heat or cold.
- Fuel poverty results from income inequality and inequalities in energy prices, housing, and energy efficiency.
- Low-income households spend twice as much of their gross income on energy costs than the national average, despite consuming less energy.
Materials

Mining
• Roughly 3% of the country’s oil and natural gas reserves, 15% of coal reserves and between 37-55% of uranium reserves are located on Indigenous land. These resources and their associated land are sometimes taken away from Indigenous people once they are discovered.2
• The U.S. imports more than 90% of the elements critical to advanced energy generation, transmission and storage.53
• Since 2004, metal mining in Peru has boosted economic growth by 6% yearly. Local, often low-income communities continue to protest against mining operations due pollution concerns. The government of Peru is ambivalent due to the economic benefits of keeping the mines open.44
• Artisanal and small scale mining (ASM) accounts for 15-20% of global production of minerals and metals. ASM often utilizes unsafe working conditions and irresponsible environmental practices, such as use of child labor and high mercury emissions.44

Electronic Waste
• In 2016, around 45 metric tons (MMT) of e-waste were generated, with Asia being the largest contributor.76
• Improper recycling and recovery procedures can lead to exposure to carcinogenic and toxic materials, which often occur in developing nations where recycling regulations to limit worker exposure are lax or nonexistent.20
• A review conducted by researchers at the University of Queensland found increased DNA damage in those living in e-waste recycling towns, along with increases in still and premature births.27
• An estimated 6-29% of the 40 million computers used in the U.S. were exported in 2010.46 The International Trade Commission found that the U.S. exported 7% of its used electronics by value in 2011.49

Climate
The World Health Organization estimates that climate change will cause an additional 250,000 deaths per year between 2030 and 2050.27
• Though wealthy, developed nations like the U.S. emit larger concentrations of GHG per capita, developing nations experience the worst effects of climate change relative to wealthier countries due to their limited resources and ability to adapt.4-39
• Low-income communities are more likely to be exposed to climate change threats (e.g., flooding, storms, and droughts) due to inadequate housing and infrastructure.39
• People living closer to the coast and small, island nations are more vulnerable to severe storms, sea level rise, and storm surges as a result of climate change.29
• Indigenous populations that rely on subsistence farming practices for food have limited options for adapting to climate change threats.29
• Areas with poor healthcare infrastructure - often in developing nations - 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.29

Solutions
• In 1994, President Bill Clinton signed an executive order for all government organizations to create strategic plans to address EJ and outline the consequences for failing to consider possible environmental injustices.35
• The EPA launched EJSCREEN in 2015, making data on environmental and demographic characteristics across the country accessible to the public. EJSCREEN also assists federal agencies in complying with the 1994 EJ Executive Order by displaying existing environmental injustice impacts on areas open to development.30
• The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) was passed in 1980 to control hazardous areas open to development.30
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• The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) was passed in 1980 to control hazardous sites. As of July 2019, 413 sites from the Superfund National Priorities List have been remediated, over 1100 sites remain on the list.30
• As of 2017, the EPA’s EJ program has granted over $26 million to community projects and organizations in over 1,400 communities focusing on clean air, healthy water, land revitalization, and environmental health.38
• Use the Environmental Justice Atlas website to learn about and spread awareness on an expanse of EJ issues.37
• Engage in and support bottom-up models of research that are responsive to the environmental concerns of communities rather than the interests of large, corporate funders. Advocate for the inclusion of local knowledge in research in addition to observations obtained from scientific methods.46

33. U.S. EPA (2016) “How was EJSCREEN Developed?”