

Environmental Racism

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ABSTRACT

Environmental racism is the disproportionate impact of environmental policies, laws, and practices on certain racial or ethnic groups (people of color and marginalized communities), often resulting in unequal access to natural resources, exposure to pollution, and denial of environmental justice. This encompasses policies, practices, or directives that result in the placement of toxic waste sites, polluting industries, and other environmentally hazardous activities in areas predominantly inhabited by racial or ethnic minorities. This issue is evident worldwide, affecting various communities in different ways. This paper examines the various issues surrounding environmental racism, the causes, effects and the possible solutions to enhance healthy environment to man.

KEYWORDS: *Environmental racism, environment, pollution, natural resources, environmental policies, environmental laws, racial or ethnic groups, environmental justice*

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INTRODUCTION

Environmental racism (also called ecological racism or ecological apartheid) refers to the disproportionate impact of environmental hazards on people of color or marginalized communities, as shown in Figure 1. It is a form of racism leading to negative environmental outcomes such as landfills, incinerators, and hazardous waste disposal disproportionately impacting communities of color, violating substantive equality [1-4]. Internationally, it is also associated with “extractivism” – which places the environmental burdens of mining, oil extraction, and industrial agriculture upon indigenous peoples and poorer nations largely inhabited by people of color [1]. This term highlights the systemic inequities in the distribution of environmental benefits (such as clean air and water) and burdens (such as toxic waste, pollution, and climate-related disasters). These inequities are often the result of historical and structural inequalities linked to race, class, and political power.

The concept of environmental racism emerged prominently in the 1980s, particularly following a study by the United Church of Christ Commission for

Racial Justice (1987) [5], which found that race was the most significant factor in the location of hazardous waste sites in the United States. This finding brought national attention to the pattern of environmental injustices affecting minority communities, especially Black, Indigenous, and Latino populations [6]. Environmental racism manifests in various ways, which include:

- The placement of polluting industries and landfills in communities of color [7].
- Inadequate access to clean water and sanitation in indigenous poor rural areas [8].
- Higher exposure to air pollution and climate change risks for marginalized urban populations [9].

Environmental justice movements have emerged in response, demanding equitable treatment and meaningful involvement of all people, regardless of race or income, in environmental decision-making processes. These grassroots movement, which are often led by the affected communities themselves, aim to combat the structural inequalities embedded in

environmental policies and practices, as shown in Figures 2 and 3.

Understanding environmental racism is crucial not only for promoting social and ecological justice but also for addressing the root causes of broader environmental degradation and climate injustice globally, as shown in Figures 4 and 5.

This concept highlights the intersection of environmental issues and social justice, emphasizing that environmental policies and practices often perpetrate racial and economic disparities.

HISTORY

The timeline for environmental justice advocacy began around the time of the civil rights movement of the 1960s. For example, unfair treatment and environmental justice were key messages in the Memphis sanitation workers' strike. Environmental justice came to national consciousness in 1982, when a Black community in North Carolina was designated as a site for waste known to have carcinogenic compounds. The same year, civil rights leader Benjamin Chavis coined the term "environmental racism," emphasizing the realities of environmental hazards and how they disproportionately affect communities of color [10].

The history of environmental racism is long and complex spanning centuries. The term "environmental racism" was coined in 1982 by Benjamin Chavis, previous executive director of the United Church of Christ (UCC) Commission for Racial Justice, in response to the dumping of hazardous polychlorinated biphenyl waste in Warren County PCB Landfill, North Carolina (his home town).

Early Beginnings:

- The history of environmental racism in North America dates back around 500 years to the arrival of the Europeans and their displacement of Native Americans from their land.
- The environmental justice movement gained momentum in the 1970s and 1980s, influenced by the American Civil Rights Movement [11].
- Some Key Events and Milestones:
- Warren County PCB Landfill (1982): The dumping of hazardous waste in Warren County, North Carolina, sparked widespread protests and led to the coining of the term "environmental racism."
- United Church of Christ Study (1987): A study by the UCC Commission for Racial Justice found a strong correlation between the location of toxic waste facilities and racial and socioeconomic

characteristics of surrounding communities, as shown in Figure 6.

- Environmental Justice Movement: The movement gained momentum in the 1990s, with grassroots organizations and campaigns bringing attention to environmental racism in policy-making and advocating for greater inclusion of non-white voices in decision-making processes – with reference to the work of Robert Bullards on environmental justice.
- Some Global Examples:
- Export of Hazardous Waste: A major concern has been the export of hazardous waste from developed countries to developing nations, with examples including the dumping of electronic waste in China and toxic waste in African countries.
- Global Agreements: International agreements such as the Basel Convention and the Bamako Convention have been adopted to regulate the transboundary movement of hazardous waste and protect vulnerable communities [11].
- The Niger Delta region in Nigeria where oil extraction activities have led to severe environmental degradation and human rights abuses, as shown in Figure 7.

The six examples of environmental racism in America are [12]:

1. Flint, Michigan
2. Warren County, North Carolina
3. Detroit, Michigan
4. Cancer Alley, Louisiana
5. Belle Glade, Florida
6. Bronx, New York

Impact and Legacy:

- Health Disparities: This has led to significant health disparities in communities of color, including increased rates of asthma, cancer, and other diseases.
- Economic Inequality: It has also perpetuated economic inequality, with communities of color often facing limited economic opportunities and investment due to environmental degradation [10].

THEORY OF ENVIRONMENTAL RACISM

Environmental racism occurs because of social, economic, and political factors. For example, unfair practices like redlining, where certain neighborhoods or areas are marked on a map, have harmed communities of color, forcing individuals and families to live in areas with few resources and more environmental dangers [10].

Causes of environmental racism: Some the factors which lead to environmental racism include:

- Lack of affordable land
- Lack of political power to fight corporations
- Lack of representation
- Lack of accountability
- Lack of mobility, and
- Poverty.

Cheap land is sought by corporations and governmental bodies. Due to this, communities that cannot effectively resist these corporations and governmental bodies and cannot access political power are unable to negotiate just costs [13]. The communities with minimized socio-economic mobility cannot relocate. In addition, the lack of financial contributions also reduces the communities' ability to act both physically and politically.

Chavis defined environmental racism in five categories:

1. Racial discrimination in defining environmental policies.
2. Discriminatory enforcement of regulations and laws.
3. Deliberate targeting of minority communities as hazardous waste dumping sites.
4. Official sanctioning of dangerous pollutants in minority communities, and the
5. Exclusion of people of color from environmental leadership positions [4].

The minority communities most often do not have the financial means, resources, and political representation to oppose hazardous waste sites [14, 15]. Known as locally unwanted land uses (LULUs), these facilities that benefit the whole community often reduce the quality of life of minority communities [16]. However, these neighborhoods also may depend on the economic opportunities the site brings and are reluctant to oppose its location at the risk of their health [4].

Some examples of environmental racism: Some of the examples of racial inequality due to environmental hazards are:

- Water contamination – This according to Environmental Health, water contamination disproportionately affects low-income communities of color, as some minority communities lack piped water and rely on wells or shared water systems that may supply them with contaminated water. This leads to illnesses from waterborne diseases to cancer, as well as others. Water issues are at the forefront of issues of injustice, as evidenced by Flint, Michigan – an environmental racism case study. Another

example is that of Camp Lejeune, a military base in North Carolina, where between August 1953 and December 1987, Camp Lejeune water supply was contaminated with carcinogenic chemical. These chemicals are known to cause:

- Parkinson's disease
- Cancers of the bladder, esophagus, kidneys, and liver.
- Multiple myeloma
- Female infertility
- Miscarriage
- Birth defects, such as cleft palates
- Neurobehavioral complications.

Higher rates of air pollution: High air pollution contributes to many diseases, as well as deaths from lung cancer, respiratory infections, strokes, pulmonary disease, and others as reported by the World Health Organization (WHO).

Lead Poisoning: Children of color are more likely to suffer from lead poisoning. As per the Public Health Post, the blood vessels of lead in non-Hispanic Black children are almost double those found in white children. Lead poisoning can cause many health conditions and medical problems, including anemia, weakness, kidney damage, and brain damage, according to the Centers for Disease Control and Prevention (CDC). Extremely high lead exposure can cause death.

Exposure to Hazardous Waste and Industrial Facilities: According to the Center for Effective Government, more Blacks, Latinos, and people in poverty live close to industrial facilities with toxic chemicals. Communities close to hazardous facilities are likely to suffer the greatest impact in the event of an explosion or leak of toxic substances. People of color effectively live closer to "ticking time bombs," such as toxic waste processing plants and industrial facilities than other population groups. There are other cases like natural disasters e. g. hurricanes and climate change that can affect minority communities disproportionately – highlighting the importance of environmental justice [17, 18].

CHALLENGES FACING ENVIRONMENTAL RACISM

Some of the challenges facing environmental racism include [19]:

1. Disproportionate Exposure: Marginalized communities face higher levels of pollution and environmental hazards, such as toxic waste facilities and contaminated water.
2. Health disparities: Communities of color experience increased rates of respiratory illnesses, cancer, and developmental issues due to

proximity to industrial sites and waste facilities, e.g. where Black children are more exposed to lead than children of other racial groups, contributing to higher body burdens of toxins.

3. **Lack of Representation:** People of color are often excluded from environmental leadership positions and decision-making processes, perpetuating environmental injustices.
4. **Systemic and Institutionalized:** In this case, environmental racism is embedded in policies, laws and practices that concentrate environmental harms along racial lines. Discriminatory zoning, inadequate regulatory enforcement, and unequal infrastructure investment contribute to this issue.
5. **Intersectional Vulnerabilities:** Environmental racism intersects with socioeconomic factors, such as poverty and housing discrimination, to create unique vulnerabilities in marginalized communities.
6. **Global Impact:** Environmental racism affects not only local communities but also has global implications, such as the export of hazardous waste to developing nations and the environmental burdens of extractivism on indigenous peoples.

SOLUTIONS TO CHALLENGES TO ENVIRONMENTAL RACISM

Finding solutions to environmental racism requires a multi-faceted approach that involves policy reforms, community engagement, and technological innovations. Some of the feasible solutions include [4, 20, 21]:

1. **Policy Reforms:** This is by strengthening environmental regulations and enforcing laws to prevent discriminatory practices. For example, the Justice40 Initiative aims to direct 40% of federal environmental program benefits to marginalized communities.
2. **Community Engagement:** Supporting grassroots activism and community-led initiatives to raise awareness and push for change. This would involve participatory design and auditing of environmental algorithms to ensure they align with community values.
3. **Technological Innovations:** Need to leverage technology to identify hotspots, gather community data, and model the effects of policies i.e. the use of sensors, GIS mapping, and citizen science initiatives to empower communities.
4. **Environmental Justice Offices:** Establishing offices focused on environmental justice, like

those in the 14 US states, to advise policymakers on the impact of policies on minority populations.

5. **Litigation and Civil Rights Law:** This is the use of civil rights law to challenge discriminatory environmental decisions and policies, and enforcing federal environmental statutes like the Clean Air Act and Clean Water Act.
6. **Inclusive Decision-making:** This ensures diverse representation in environmental decision-making processes to create more equitable solutions.
7. **Education and Awareness:** This has to do with educating the public about environmental racism and its impacts on marginalized communities, and promoting communal practices that address these injustices.
8. **Community Monitoring:** This is involving local stakeholders in systematically observing and assessing environmental conditions to support sustainability initiatives.
9. **Participatory Design:** Community members are to be involved in the design and testing of environmental apps and platforms to ensure usability and relevance.
10. **Contestability Mechanisms:** This entails establishing clear pathways for communities to challenge algorithmic decisions they deem unfair or inaccurate.
11. **Investing in Infrastructure:** investing in affordable broadband infrastructure and digital literacy training in underserved areas to support community engagement.

CONCLUSION

Environmental racism is a pervasive issue that disproportionately affects marginalized communities, particularly communities of color, with environmental hazards, pollution, and lack of access to natural resources. The history of environmental racism is complex and deeply rooted in systemic and institutionalized practices that perpetuate inequality and discrimination. There is the urgent need to work together to create a more just and equitable society that prioritizes the health, well-being, and environmental quality of all communities, regardless of race or socioeconomic status. More information about environmental racism can be found in the books in [22-24], and also from the following related journals:

- *Journal of Public Health Policy and Planning*
- *New England Journal of Medicine*
- *Environmental Health Perspectives*
- *Frontiers in Epidemiology*

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Figure 1. Environmental racism

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifMOAtkJQ_z2v1RNgUrkYErUdyFtg:1749565185574&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AlljpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPltxGfm59wttyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_r a6lCkyw3EIRaisLfSQbmocMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKEwiA7ZabhueNAxVqxzgGHSCOKcsQtKgLegQIEhAB&biw=1036&bih=539&dpr=1#vhid=QbsLLyefxjiqMM&vssid=mosaic



Figure 2. Climate justice

Source: https://en.wikipedia.org/wiki/Climate_justice



Figure 3. Environmental justice

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifNHrEOMGfnQEduS1X00kv0IF8JUNg:1749565563549&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AlljpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPltxGfm59wttyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_r a6lCkyw3EIRaisLfSQbmocMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKewiUyrTPheNAxXp1AIHHSqgBtIQtkgLegQIFBAB&biw=1036&bih=539&dpr=1#vhid=8Ggy8pLBKQp4UM&vssid=mosaic



Figure 4. Climate change

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifNHrEOMGfnQEduS1X0Okv0IF8JUNg:1749565563549&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AIjppHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJIPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPitxGfm59wttyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_ra6lCkyw3EIRaisLfSQbmocMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKewiUyrTPheNAXp1AIHHSqgBtIQtKgLegQIFBAB&biw=1036&bih=539&dpr=1#vhid=JW1H7VlSnM-mHM&vssid=mosaic



Figure 5. ExxonMobil climate change denial

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifNHrEOMGfnQEduS1X0Okv0IF8JUNg:1749565563549&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AIjppHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJIPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPitxGfm59wttyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_ra6lCkyw3EIRaisLfSQbmocMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKewiUyrTPheNAXp1AIHHSqgBtIQtKgLegQIFBAB&biw=1036&bih=539&dpr=1#vhid=S01-Lkd2oITUFM&vssid=mosaic



Figure 6. Race (human categorization)

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifNHrEOMGfnQEduS1X0Okv0IF8JUNg:1749565563549&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AIJpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJIPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPItxGfm59wttlyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_ra6lCkyw3EIRaisLfSqbmcMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKEwiUyrTPheNAxXp1AIHHSqgBtIQtkgLegQIFBAB&biw=1036&bih=539&dpr=1#vhid=kBBFtCGGYr-XnM&vssid=mosaic



Figure 7. Exploitation of natural resources

Source: https://www.google.com/search?sca_esv=ea7b27f3c7f5bbf6&sxsrf=AE3TifNHrEOMGfnQEduS1X0Okv0IF8JUNg:1749565563549&q=images+on+environmental+racism+by+wikipedia&udm=2&fbs=AIJpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tmWITc7uy4KleJIPgyyGM1YJJNzu26A7UQjdzW_3QjQoz5M3kGxMbPItxGfm59wttlyL3pmrgM03Xbwv9VB3RKvniElRiYhWGQ9rELH1qGyhROZuVJ5kG_xWVwRgiFu_ra6lCkyw3EIRaisLfSqbmcMWUE3uRXJQ9bd8IrMWqoY3vmYZoNKsiRzY0UNw&sa=X&ved=2ahUKEwiUyrTPheNAxXp1AIHHSqgBtIQtkgLegQIFBAB&biw=1036&bih=539&dpr=1#vhid=Fk9HhZaZ8fM3oM&vssid=mosaic