



ENVIRONMENTAL JUSTICE: THE INTERSECTION OF CHEMICAL AND ENVIRONMENTAL LAW WITH ISSUES OF SOCIAL JUSTICE AND EQUITY, INCLUDING THE DISPROPORTIONATE IMPACT OF POLLUTION ON LOW INCOME AND MINORITY COMMUNITIES

Paluck Sharma

Assistant Professor, Faculty of Law, Kalinga University, Naya Raipur, Chhattisgarh
paluck.sharma@kalingauniversity.ac.in

Article History: Received: 02.04.2023 Revised: 20.05.2023 Accepted: 22.06.2023

Abstract

This paper explores the concept of environmental justice, which addresses the intersection of chemical and environmental law with issues of social justice and equity. It focuses on the disproportionate impact of pollution on low-income and minority communities. Environmental justice seeks to rectify the historical and ongoing environmental inequalities experienced by marginalized populations, who often bear a heavier burden of environmental pollution and its associated health risks. This paper highlights the need for comprehensive legal frameworks that incorporate environmental justice principles and offers recommendations for fostering more equitable and sustainable practices..

Key words: environmental justice, chemical and environmental law, social justice, equity, pollution, low-income communities, minority communities, disproportionate impact.

1 Introduction

Environmental justice is a critical concept that addresses the intersection of chemical and environmental law with issues of social justice and equity. It recognizes that marginalized communities, particularly those with low-income and minority populations, often bear a disproportionate burden of environmental pollution and its associated health risks (Bullard, 1994; Pastor et al., 2002).

1.1 Background and Significance of Environmental Justice

Environmental justice has its roots in the civil rights movement of the 1960s and 1970s, when communities of color and low-income communities began to

challenge discriminatory practices in the siting of hazardous waste facilities and other environmental hazards (Bullard, 1990; Mohai & Saha, 2015). These struggles highlighted the need to address the unequal distribution of environmental benefits and burdens, leading to the emergence of the environmental justice movement.

1.2 Definition of Environmental Justice and Its Key Principles

Environmental justice can be defined as the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, in the development, implementation, and enforcement of environmental laws,

regulations, and policies (U.S. Environmental Protection Agency [EPA], 2019). The key principles of environmental justice include equity, democracy, empowerment, and the right to a healthy and sustainable environment (Bullard, 1994; EPA, 2019).

1.3 Overview of the Disproportionate Impact of Pollution on Low-Income and Minority Communities

Studies have consistently shown that low-income and minority communities are disproportionately burdened by environmental pollution (Bullard, 1993; Morello-Frosch & Jesdale, 2006). For example, research has demonstrated higher exposure to air pollutants, toxic waste sites, and industrial facilities in these communities (Bullard & Wright, 2009; Saha et al., 2017). The cumulative effects of multiple pollution sources contribute to increased health disparities and socioeconomic challenges in these communities.

2 Historical Context of Environmental Injustices

2.1 Historical Overview of Environmental Inequalities and Discrimination

The historical context of environmental injustices reveals a pattern of environmental inequalities and discrimination experienced by marginalized communities. Studies have documented the systemic biases and discriminatory practices that have perpetuated environmental burdens in low-income and minority neighborhoods (Bullard, 1990; Faber et al., 2012). For example, Bullard's seminal work on environmental racism highlights how race and socioeconomic factors have influenced the siting of hazardous facilities in African American communities (Bullard, 1990). Similarly, Faber et al. (2012) analyze the historical legacy of discriminatory land-use policies and their impact on environmental disparities.

2.2 Case Studies Highlighting Significant Environmental Justice Struggles

Several case studies illustrate the significant environmental justice struggles faced by communities impacted by pollution. One notable example is the case of the Love Canal neighborhood in Niagara Falls, New York, where toxic waste was buried, leading to widespread health issues and displacement of residents (Gibbs, 1993). Another significant case is the activism surrounding the Shell Chemical Plant in Norco, Louisiana, which demonstrated the adverse health effects and socioeconomic disparities resulting from industrial pollution (Bullard, 1993).

2.3 Linking Systemic Racism and Environmental Injustice

Scholarship has highlighted the connection between systemic racism and environmental injustice, emphasizing how social and economic factors intersect with environmental burdens (Bullard, 1994; Pellow, 2000). Bullard (1994) explores the ways in which historical inequities, discriminatory policies, and power imbalances contribute to environmental disparities. Pellow (2000) delves into the role of racial and class inequalities in shaping environmental decision-making processes and policy outcomes.

3 Chemical and Environmental Laws

3.1 Overview of Existing Chemical and Environmental Regulations

An overview of existing chemical and environmental regulations provides insights into the legal framework governing pollution and its implications for environmental justice. Numerous laws and regulations have been enacted to address environmental concerns, such as the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act (RCRA) (U.S. EPA, 2021). These regulations aim to control pollution, protect public health, and safeguard the environment.

3.2 Critique of the Adequacy of Current Laws in Addressing Environmental Justice Concerns

Critiques of the adequacy of current laws highlight their limitations in effectively addressing environmental justice concerns. Research has shown that existing regulations often fail to adequately protect vulnerable communities from disproportionate environmental burdens (Bullard et al., 2007; Mohai et al., 2009). For example, Bullard et al. (2007) argue that environmental laws and policies tend to overlook the cumulative impacts of multiple pollution sources on marginalized communities. Mohai et al. (2009) analyze the distribution of toxic waste facilities and find that low-income and minority populations are more likely to be exposed to hazardous sites, suggesting systemic inequities within the regulatory framework.

3.3 The Need for Intersectional Approaches in Legal Frameworks

Scholars and activists emphasize the need for intersectional approaches within legal frameworks to address environmental justice concerns comprehensively. Intersectionality acknowledges the interconnected nature of social identities and experiences, including race, class, and gender, in shaping environmental injustices (Bullard, 1994; Collins, 2015). Incorporating intersectionality into legal frameworks can help recognize and address the unique challenges faced by different communities (Bullard, 1994; Schlosberg, 2013).

4 Disproportionate Impact on Low-Income and Minority Communities

4.1 Examination of the Factors Contributing to Disproportionate Impacts

An examination of the factors contributing to disproportionate impacts reveals the complex interplay of social, economic, and political factors. Bullard (1993) explores the role of race, class, and power in

determining the siting of hazardous facilities in marginalized communities. Morello-Frosch and Jesdale (2006) analyze the influence of residential segregation and discriminatory land-use practices in concentrating environmental hazards in low-income and minority neighborhoods.

4.2 Health Consequences and Economic Burdens on Affected Communities

The health consequences and economic burdens borne by affected communities are significant indicators of the disproportionate impact of pollution. Studies have documented higher rates of respiratory illnesses, cancer, and other health disparities in communities exposed to pollution (Bullard & Wright, 2009; Saha et al., 2017). Furthermore, low-income and minority communities often face economic hardships due to decreased property values, limited job opportunities, and increased healthcare costs associated with environmental pollution (Bullard & Wright, 2009; Pastor et al., 2002).

4.3 Case Studies Illustrating the Connection between Environmental Pollution and Social Inequity

Case studies provide compelling evidence of the connection between environmental pollution and social inequity. For instance, the case of Flint, Michigan, highlights the intersection of race, poverty, and environmental contamination through the lead-contaminated water crisis (Mohai & Saha, 2015). Another notable case study is that of Cancer Alley in Louisiana, where predominantly African American communities are disproportionately impacted by industrial pollution (Bullard & Wright, 2009). These case studies underscore the systemic injustices experienced by marginalized communities.

5 Environmental Justice Movements and Advocacy

5.1 Overview of Grassroots Movements and Community Organizations

An overview of grassroots movements and community organizations reveals the important role they play in environmental justice advocacy. Bullard (1993) discusses the emergence of grassroots organizations, such as the West Harlem Environmental Action (WE ACT) and the Southwest Organizing Project (SWOP), which have been instrumental in mobilizing communities and addressing environmental injustices. These organizations empower affected communities to advocate for their rights and work towards environmental equity.

5.2 Role of Activism in Raising Awareness and Driving Policy Change

The role of activism in raising awareness and driving policy change is crucial in the environmental justice movement. Through protests, demonstrations, and public campaigns, activists draw attention to the disproportionate impacts of pollution on marginalized communities (Bullard, 1994; Faber et al., 2012). Their efforts have led to important policy reforms and increased accountability of industries and regulatory agencies (Bullard, 1994; Mohai & Saha, 2015).

5.3 Success Stories and Ongoing Challenges Faced by Environmental Justice Advocates

Success stories in environmental justice advocacy demonstrate the transformative potential of community-led initiatives. For example, the case of the Altgeld Gardens public housing project in Chicago showcases the community's successful fight against environmental hazards and the subsequent establishment of sustainable redevelopment plans (Pastor et al., 2002). However, ongoing challenges persist, including the need for sustained funding and resources, addressing the root causes of environmental injustices, and ensuring meaningful community participation in decision-making processes (Bullard et al., 2007; Faber et al., 2012).

6 Integrating Environmental Justice into Policy and Practice

6.1 Strategies for Incorporating Environmental Justice Principles into Chemical and Environmental Laws

Strategies for incorporating environmental justice principles into chemical and environmental laws have been proposed by scholars and practitioners. Schlosberg (2007) discusses the importance of integrating equity considerations into policy frameworks, emphasizing the need for environmental decision-making processes that address social and economic disparities. Additionally, Bullard et al. (2007) advocate for the adoption of cumulative impact assessments to better account for the combined effects of multiple pollution sources on vulnerable communities.

6.2 Recommendations for Improving the Participation and Representation of Affected Communities

Improving the participation and representation of affected communities in decision-making processes is crucial for advancing environmental justice. Collins (2015) highlights the significance of community engagement and suggests the implementation of inclusive practices that value the local knowledge and experiences of affected populations. Mohai and Saha (2015) propose the creation of community advisory boards and other mechanisms to ensure the meaningful involvement of marginalized communities in environmental decision-making.

6.3 Collaborative Approaches Involving Government, Industry, and Communities

Collaborative approaches involving government, industry, and communities are essential for addressing environmental justice concerns. Pellow (2000) emphasizes the importance of partnerships between regulatory agencies, industry stakeholders, and community

organizations to foster dialogue, transparency, and shared decision-making. Such collaborations can lead to the development of innovative solutions and policies that better address the needs and concerns of affected communities.

7 International Perspectives on Environmental Justice

7.1 Comparative Analysis of Environmental Justice Movements and Policies across Countries

A comparative analysis of environmental justice movements and policies across countries provides insights into the global nature of environmental injustices. A study by Agyeman and Evans (2004) compares environmental justice movements in the United States, United Kingdom, and South Africa, highlighting the similarities and differences in their approaches to addressing environmental inequities. The analysis reveals the importance of understanding the local context and tailoring strategies to the specific challenges faced by different countries.

7.2 Lessons Learned from International Initiatives and Best Practices

International initiatives and best practices offer valuable lessons for advancing environmental justice globally. Schlosberg and Carruthers (2010) examine case studies from different countries to identify effective strategies for promoting environmental justice. They emphasize the significance of participatory approaches, equitable access to resources, and the recognition of indigenous rights in achieving environmental justice outcomes.

7.3 The Importance of Global Collaboration in Addressing Environmental Justice Issues

Global collaboration is crucial for addressing environmental justice issues that transcend national boundaries. Walker (2012) highlights the need for international cooperation to address global environmental challenges and ensure the

protection of vulnerable communities. Collaborative efforts can involve knowledge sharing, policy exchange, and coordinated actions among governments, non-governmental organizations, and grassroots movements to foster environmental justice on a global scale.

8 Conclusion

Environmental justice, at the intersection of chemical and environmental law with issues of social justice and equity, sheds light on the disproportionate impact of pollution on low-income and minority communities. Throughout this paper, we have explored the historical context of environmental injustices, the existing chemical and environmental laws, the disproportionate impacts on marginalized communities, and the role of grassroots movements and advocacy in driving change. We have also examined the need for integrating environmental justice principles into policy and practice, as well as the importance of international perspectives and collaboration in addressing these issues.

References:

1. Agyeman, J., & Evans, B. (2004). 'Just sustainability': The emerging discourse of environmental justice in Britain? *Geographical Journal*, 170(2), 155-164.
2. Schlosberg, D., & Carruthers, D. V. (2010). Indigenous struggles, environmental justice, and community capabilities. *Global Environmental Politics*, 10(4), 12-35.
3. Walker, G. (2012). Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes. *Environmental Impact Assessment Review*, 32(1), 1-6.

4. Bullard, R. D., Mohai, P., Saha, R., & Wright, B. (2007). Toxic wastes and race at twenty: Why race still matters after all of these years. *Environmental Law Reporter*, 37(6), 10263-10277.
5. Collins, P. H. (2015). Intersectionality's definitional dilemmas. *Annual Review of Sociology*, 41, 1-20.
6. Mohai, P., & Saha, R. (2015). Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice. *Environmental Research Letters*, 10(6), 065001.
7. Pellow, D. N. (2000). Environmental inequality formation: Toward a theory of environmental injustice. *American Behavioral Scientist*, 43(4), 581-601.
8. Schlosberg, D. (2007). *Defining environmental justice: Theories, movements, and nature*. Oxford University Press.
9. Bullard, R. D. (1993). *Confronting environmental racism: Voices from the grassroots*. South End Press.
10. Bullard, R. D. (1994). Environmentalism and the politics of equity: Emergent trends in the Black community. *Environmental Ethics*, 16(3), 239-258.
11. Bullard, R. D., Mohai, P., Saha, R., & Wright, B. (2007). Toxic wastes and race at twenty: Why race still matters after all of these years. *Environmental Law Reporter*, 37(6), 10263-10277.
12. Faber, D., Krieg, E. J., & McCarthy, D. (2012). Unequal exposure to ecological hazards: Environmental injustices in the Commonwealth of Massachusetts. *Environmental Health Perspectives*, 120(3), 364-371.
13. Mohai, P., & Saha, R. (2015). Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice. *Environmental Research Letters*, 10(6), 065001.
14. Pastor, M., Sadd, J., & Hipp, J. (2001). Which came first? Toxic facilities, minority move-in, and environmental justice. *Journal of Urban Affairs*, 23(1), 1-21.
15. Bullard, R. D. (1993). *Confronting environmental racism: Voices from the grassroots*. South End Press.
16. Bullard, R. D., & Wright, B. (2009). *Environmental justice for all: Community perspectives on health and research needs*. Toxicology and Environmental Health Sciences, 1(1), 1-2.
17. Mohai, P., & Saha, R. (2015). Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice. *Environmental Research Letters*, 10(6), 065001.
18. Morello-Frosch, R., & Jesdale, B. M. (2006). Separate and unequal: Residential segregation and estimated cancer risks associated with ambient air toxics in US metropolitan areas. *Environmental Health Perspectives*, 114(3), 386-393.
19. Pastor, M., Sadd, J., & Hipp, J. (2001). Which came first? Toxic facilities, minority move-in, and environmental justice. *Journal of Urban Affairs*, 23(1), 1-21.
20. Saha, R., Mohai, P., & Wright, B. (2017). Hidden stories of environmental racism: White and black disparities in cancer risks from air pollution in 10 US counties. *Race and Social Problems*, 9(2), 99-110.

21. Bullard, R. D., Mohai, P., Saha, R., & Wright, B. (2007). Toxic wastes and race at twenty: Why race still matters after all of these years. *Environmental Law Reporter*, 37(6), 10263-10277.
22. Collins, P. H. (2015). Intersectionality's definitional dilemmas. *Annual Review of Sociology*, 41, 1-20.
23. Mohai, P., Pellow, D., & Roberts, J. T. (2009). Environmental justice. *Annual Review of Environment and Resources*, 34, 405-430.
24. Schlosberg, D. (2013). Theorising environmental justice: The expanding sphere of a discourse. *Environmental Politics*, 22(1), 37-55.
25. U.S. Environmental Protection Agency (EPA). (2021). Laws & regulations. Retrieved from <https://www.epa.gov/laws-regulations>
26. Bullard, R. D. (1990). *Dumping in Dixie: Race, class, and environmental quality*. Westview Press.
27. Bullard, R. D. (1993). *Confronting environmental racism: Voices from the grassroots*. South End Press.
28. Bullard, R. D. (1994). Environmentalism and the politics of equity: Emergent trends in the Black community. *Environmental Ethics*, 16(3), 239-258.
29. Faber, D., Krieg, E. J., & McCarthy, D. (2012). Unequal exposure to ecological hazards: Environmental injustices in the Commonwealth of Massachusetts. *Environmental Health Perspectives*, 120(3), 364-371.
30. Gibbs, L. K. (1993). *Love Canal: My story*. State University of New York Press.
31. Pellow, D. N. (2000). Environmental inequality formation: Toward a theory of environmental injustice. *American Behavioral Scientist*, 43(4), 581-601.
32. Bullard, R. D. (1990). *Dumping in Dixie: Race, class, and environmental quality*. Westview Press.
33. Bullard, R. D. (1993). *Confronting environmental racism: Voices from the grassroots*. South End Press.
34. Bullard, R. D. (1994). Environmentalism and the politics of equity: Emergent trends in the Black community. *Environmental Ethics*, 16(3), 239-258.
35. Bullard, R. D., & Wright, B. (2009). Environmental justice for all: Community perspectives on health and research needs. *Toxicology and Environmental Health Sciences*, 1(1), 1-2.
36. Mohai, P., & Saha, R. (2015). Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice. *Environmental Research Letters*, 10(6), 065001.
37. Morello-Frosch, R., & Jesdale, B. M. (2006). Separate and unequal: Residential segregation and estimated cancer risks associated with ambient air toxics in US metropolitan areas. *Environmental Health Perspectives*, 114(3), 386-393.
38. Pastor, M., Sadd, J., & Hipp, J. (2001). Which came first? Toxic facilities, minority move-in, and environmental justice. *Journal of Urban Affairs*, 23(1), 1-21.
39. Saha, R., Mohai, P., & Wright, B. (2017). Hidden stories of environmental racism: White and black disparities in cancer risks from air pollution in 10 US counties. *Race and Social Problems*, 9(2), 99-110.
40. U.S. Environmental Protection Agency. (2019). What is

Environmental Justice? Retrieved
from

<https://www.epa.gov/environmental-justice/what-environmental-justice>