



Online Ethics Center  
FOR ENGINEERING AND SCIENCE

# Environmental Justice Subject Aid

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## Description

A short guide to some key resources and readings on the topic of environmental justice.

## Body

### Environmental Justice

One approach to understanding the meaning of “environmental justice” is to consider the intersection of environmental issues and social justice. Local communities may call for environmental justice when they feel unfairly or overly burdened by pollution in their air, water, soil, workplaces, homes, or green spaces, and when they believe their voices are not heard or adequately represented in decision making about these arenas. Historically, the environmental justice movement emerged in U.S. communities of color who used goals and tactics similar to those in the Civil Rights movement to fight against environmental discrimination, primarily in the disproportionate location of potentially toxic facilities and waste sites close to low-income, minority communities. These decisions often involve science, engineering, and technology, particularly in assessing benefits and harms to communities, environments, and economic and social interests and in providing

recommendations for achieving more environmentally and socially just outcomes.

**The U.S. Environmental Protection Agency (EPA) provides the following definition <https://www.epa.gov/environmentaljustice> (Accessed October 18, 2016):**

“Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

“EPA has this goal for all communities and persons across this nation. It will be achieved when everyone enjoys: the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.”

See also [Social Justice](#), [Social Responsibility](#).

## Subject Overviews

**Figueroa, Robert M. 2005. Environmental Justice. *Encyclopedia of Science, Technology, and Ethics*. Carl Mitcham, Editor in Chief, v2: 665-69. USA: Thomson-Gale.**

This entry reviews the historical emergence of the social movement for environmental justice in the US. It describes the emerging field of studies of environmental racism and of environmental privilege, and the implications of technological disasters for environmental justice. It ends with a summary of the types of ethical issues that arise when the varied sources of environmental injustice are identified.

**Lawson, Bill E. 2008. "The value of environmental justice." *Environmental Justice* 1, 3: 155-158.**

Environmental justice, at least, entails preserving the environment as a global entity, but also making those persons who feel, have felt, have been, or are victims of environmental crimes and atrocities feel as if they are part of the

solution as full members of the human community and not just the environmental dumping ground for the well-off.

**Miller, Jeffrey F., Cliff I. Davidson, Deborah A. Lange, and Meredith L. Meyer Grelli. 2011. "Brownfields and Environmental Justice: Income, Education, and Race." *Environmental Justice* 4, 2: 121-124.**

Brownfields are parcels of chemically contaminated land that are not redeveloped due to the expense of cleanup. Correcting any environmental injustice associated with brownfields can involve redevelopment efforts that account for economic disparities. Since economic conditions in communities with brownfields that have received funding from the United States government are significantly worse than in the nation as a whole, there may be an opportunity to right this environmental injustice by choosing to remediate brownfields in economically depressed areas in ways that address both environmental risk and the economic health of communities in those areas.

**Boone, Christopher G. 2008. "Environmental justice as process and new avenues for research." *Environmental Justice* 1,3: 149-154.**

Environmental justice is too often interpreted as a state rather than a process. This can lead to erroneous conclusions about the role of race and privilege in the distribution of environmental dis-amenities. Toxic facilities are concentrated disproportionately in Latino neighborhoods in Los Angeles and in white neighborhoods in Baltimore. However, these seemingly contradictory results are both the legacies of decades of racist practices and white privilege. Explanation in environmental justice research should therefore focus on fairness of process in addition to outcome. Promising new avenues for research can build on theories, data, and methods from fields including land use law, industrial and housing location theory, hazards and vulnerability, political ecology, public health, and ecology. Environmental justice research should attend to the distributive and procedural justice of environmental amenities, social variables beyond race and class, and analyses at the household scale. Finally, environmental justice should be heralded for its ability to humanize science as a galvanizing force for change.

**Ottinger, Gwen. 2013. *Refining Expertise: How Responsible Engineers Subvert Environmental Justice*. New York: New York University Press.**

The struggles over health and pollution in a small Louisiana town where primarily Black citizens live next door to an oil refinery suggest how engineers committed to responsibility can actually undermine environmental justice. Residents and their advocates collected scientific data to prove their argument the refinery was making them sick, in contrast with the company's scientific claims that it was not. They eventually reached a settlement that addressed many of their grievances, except their concerns about health, and stopped conducting their own scientific data. Company employees, the majority of whom were white, portrayed themselves and their company as responsible by appealing to local ideas about good citizens, nice communities, and moral companies. This framing of social responsibility made it difficult for residents to challenge the company and its claims to scientific expertise. This approach to industrial facilities dealing with concerned communities can undermine grassroots campaigns, environmental justice activism, and efforts to democratize science.

## **Policy or Guidance**

**The Environmental Protection Agency Environmental Justice website is at <https://www.epa.gov/environmentaljustice>. Accessed July 12, 2016**

This website provides the definition of environmental justice for EPA policy. It contains a great variety of information about EPA activities and programs in environmental justice as well as access to the EPA environmental listserv and blog.

**Coble, Yank, Christine Coussens and Kathleen Quinn, Editors; Roundtable on Environmental Health Sciences, Research, and Medicine; Board on Population Health and Public Health Practice; Institute of Medicine. 2009. *Environmental Health Sciences Decision Making: Risk Management, Evidence, and Ethics: Workshop Summary*. Washington, DC: National Academies Press. <http://www.onlineethics.org/34416.aspx>**

Environmental health decision making can be a complex undertaking. Policy makers often grapple with how to make appropriate decisions when the research is uncertain. The challenge is to make the right decision with the best available data in a transparent process. This workshop was convened to inform the Roundtable on Environmental Health Sciences, Research, and Medicine about emerging issues in risk management, "weight of evidence," and ethics that influence environmental health decision making. The workshop, summarized in this volume, included an overview of the principles underlying decision making, the role of evidence and challenges for vulnerable populations, and ethical issues of conflict of interest, scientific integrity, and transparency.

**The National Academies of Science, Engineering and Medicine. 2005. *Assessment of the Scientific Information for the Radiation Exposure Screening and Education Program*. DC: National Academies Press <http://www.onlineethics.org/34552.aspx>**

The Radiation Exposure Compensation Act (RECA) was set up by Congress in 1990 to compensate people diagnosed with specified cancers and chronic diseases that could have resulted from exposure to nuclear-weapons tests at various U.S. test sites. Eligible claimants generally included those satisfying specified residence or exposure criteria. The Health Resources and Services Administration (HRSA) oversees the screening, education, and referral services program and asked the National Academies to review it. The report recommends Congress should establish a new science-based process called "probability of causation/assigned share" (PC/AS) to determine eligibility for compensation and, because fallout may have been higher for people outside RECA-designated areas, apply it to all residents of the continental US, Alaska, Hawaii, and overseas US territories who have been diagnosed with specific RECA-compensable diseases and who may have been exposed, even in utero, to the radiation. However, since the risks of radiation-induced disease are generally low at the exposure levels of concern, in most cases it is unlikely that exposure to radioactive fallout was a substantial contributing cause of cancer. [Chapter 8 discusses the Ethical Framework](#) within which the legislation, policies, and recommendations reside. It discusses the ethics of compensation as providing rectifying and distributive justice – the duty to ameliorate or restore a loss, to compensate for the effects of a loss, to

promote equity, and to answer claims from causation or probable causation - and the ethics of medical and compensational screening.

## **Bibliography**

### **Social Justice, Climate Change & Engineering Education Bibliography**

<https://onlineethics.org/cases/climate-change-engineered-systems-and-society/social-justice-climate-change-engineering>

Researchers at the University of Virginia Science, Technology, and Society program compiled this bibliography about social justice, climate change, and engineering education as part of an NSF supported Climate Change Educational Partnership planning project. It has many entries and most are annotated. It was compiled in 2012 and added to the OEC in 2014. Accessed July 11, 2016.

### **Yale Forum on Religion & Ecology - Environmental Justice: An Annotated Bibliography** <http://uuministryforearth.org/files/GP1-Yale-EnvironmentalJusticeAnnotations.pdf>

The Unitarian Universalist Association provides an extensive annotated bibliography, through its affiliate - UU Ministry for Earth. The bibliography was compiled by the Yale Forum on Religion & Ecology and focuses on the theological, spiritual and ethical aspect of human values and activities that affect the health and sustainability of the living earth. Accessed July 11, 2016.

### **NIEHS - Advancing Environmental Justice: Annotated Bibliography**

[https://www.niehs.nih.gov/research/supported/assets/docs/a\\_c/advancing\\_environmental\\_justice](https://www.niehs.nih.gov/research/supported/assets/docs/a_c/advancing_environmental_justice)

The National Institute of Environmental Health Sciences annotated bibliography, published in 2014, focused on the following themes in environmental justice: Capacity building and the value of community engagement; Identifying communication approaches and increasing cultural competency; Informing decision- and policy-makers; Recognizing social stress, including mental and behavioral health issues. NIEHS indicates that it intends to update the document.

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## **Notes**

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