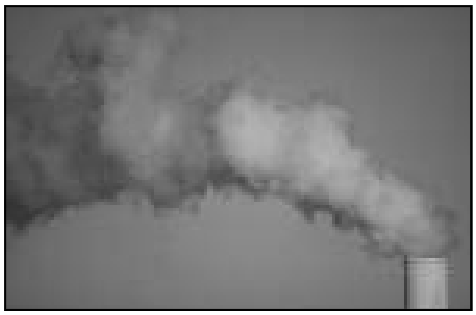
What is Environmental Justice?
Environmental Justice is the unbiased treatment and significant involvement of people of all races, incomes, and cultures with respect to the development, execution, and enforcement of environmental laws, regulations, and policies. The term environmental justice is often used interchangeably with the term environmental equity, which refers to the equal distribution of environmental effects, such as pollution and contamination, across all groups, as well as equitable policies and processes to reduce differences in those who endure environmental problems. Such unbiased treatment implies that no group should shoulder a disproportionate share of negative environmental impacts. Ecology can be used in conjunction with other sciences to identify cases or potential cases of environmental injustice and classify areas of risk. It is also useful in determining solutions and utilizing study results to influence policy making. Once policies or management practices are implemented, ecological monitoring ensures their effectiveness.

Ecological Society of America

How are people affected by unjust environmental practices?
Unjust environmental practices predominantly influence lower income communities and those composed primarily of ethnic, social, and racial minorities. These groups are often faced with the burden of environmental hazards, which many times result in lasting health problems. Landfills, chemical and power plants, and waste dumping sites are usually located in or near low-income areas where the citizens are less likely to fight against the intrusion than are citizens of wealthier areas. These areas subsequently have higher levels of air, water, and soil pollution. Residential and occupational exposure to hazardous substances from these sources causes higher rates of birth defects, cancer, asthma, diabetes, cardiovascular disease, and many other health issues. Because these affected communities are usually poorer, access to quality health care can be limited, worsening the problem.

Despite the disproportionate distribution of risk, all Americans are faced with a certain degree of environmental injustice. Information is frequently withheld from citizens concerning the "health" of their town or county in order to maintain high property values. Often people will suffer from chronic illness without considering the possibility that the source of their sickness is external (ie: air, water).



Why does Environmental Injustice occur?
Economics – Residents of low-income communities do not have the means to purchase property in unaffected areas or move out of polluted neighborhoods.
Lack of Civic Empowerment – Minority and low-income community members are often unaware of policy decisions affecting them and how to access the political system. They lack the resources, such as time and money, which would enable them to take political action. Technology and other resources to prevent and combat the effects of environmental risks are also scarce.
Communication & Cultural Barriers – Language and cultural barriers may prevent effective participation in the decision making process, as those who don't speak English may be unaware of opportunities and unable to communicate their ideas effectively.

Milestones in Environmental Justice

1964 U.S. Congress passes the Civil Rights Act, 1964. Title VI prohibits use of federal funds to discriminate based on race, color, and national origin.

1969 Ralph Abascal of the California Rural Legal Assistance files a suit on behalf of six migrant farm workers that ultimately resulted in the ban of the pesticide DDT.

Congress passes the National Environmental Policy Act.

1970 The United States Public Health Services acknowledges that lead poisoning was disproportionately impacting African Americans and Hispanic children.

1971 The President's Council on Environmental Quality annual report acknowledges racial discrimination adversely affects urban poor and the quality of their environment.

1979 Linda McKeever Bullard files *Bean v. Southwestern Waste Management, Inc.* lawsuit on behalf of Houston's Northeast Community Action Group; this is the first civil rights suit challenging the site choice for a waste facility.

1982 The state of North Carolina decides to build a toxic waste landfill in Warren County, a predominantly African-American area. Five hundred demonstrators come together to protest the waste site and attract national attention. This demonstration and public outcry spark the Environmental Justice movement.

1983 The U.S. General Accounting Office conducts a study of the states in The Environmental Protection Agency's (EPA) Region IV "to determine the correlation between the location of hazardous waste landfills and the racial and economic status of the surrounding counties." The report finds that 3 out of 4 landfills in the region were located in or near predominantly minority communities.

1987 A study conducted by the United Church of Christ Commission on Racial Justice, finds that race is the most significant factor in determining the placement of hazardous facilities nationwide.

What role does Ecology play in Environmental Justice?

As scientists are now studying urban ecology, the ecology of cities and surrounding areas, rather than solely focusing on pristine or "undisturbed" ecosystems, there exists great opportunity to contribute to environmental justice. Because humans have transformed the land to provide food, shelter, and products for use, and have therefore had a large impact on the environment, assessing impacts of environmental decisions requires an understanding of ecological processes and principles. Ecology allows us to test the abilities of ecosystems to deal with disturbances, including pollution and other anthropogenic hazards. Current ecological studies focus on our changing environment as well as the causes behind and the consequences of these changes. Many ecologists study the relationship between "indicator" and "keystone" species and their habitats, as these species allow researchers to assess the health and sustainability of an environment. Combining these studies with chemical testing and sociological research can help ecologists predict or identify potential risks that environmental hazards have on ecosystems as well as on the humans that inhabit them.

A sample is taken from a watershed to test the effects of a nearby farm on water quality.

The biological and physical composition of the environment can determine the actions or steps needed to resolve problems. Ecological processes are affected by time, location, frequency and severity of disturbance, species interactions, and local abiotic factors. Understanding their role in the function, stability, and resilience of an ecosystem helps to gauge the gravity of the problem and contributes to developing solutions to environmental challenges. When environmental problems are studied using ecological principles, environmental impact statements can be formed; these statements are useful in directing policy and management decisions. The National Environmental Policy Act of 1969 requires that environmental impact statements are prepared as evaluations of the effects government actions can have on the environment, including its occupants. Ecological research can also be used to devise solutions to existing environmental problems, as well as monitor the effectiveness of policies and management schemes once they are initiated.

Milestones in Environmental Justice

1990 The Clean Air Act is passed by U.S. Congress.

EPA forms the environmental Equity Work Group which aims to find sources of and solutions for environmental inequities among different social groups. This eventually grows to form the Office of Environmental Equity (1992), which later becomes the Office of Environmental Justice.

1992 *The National Law Journal* conducts a study which finds that the EPA sites in minority communities are lower on the national priorities action list and that polluters in those neighborhoods paid 54% lower fines than polluters in white communities.

Mid to late 1990s Because of increased voter apathy, divisional politics and a conservative Congress lead to a change in American environmental policies. "Regulatory reform" was the code-word for trying to rollback some of the environmental policies made over the past twenty years. During 1995 and 1996, community leaders, national advocacy groups, and environmentalists try to prevent the relaxation of these environmental laws.

1991 The First National People of Color Environmental Leadership Summit is held in Washington, D.C.

Early to mid 1990s There is a noted increase in grassroots activism – community members use various studies and data developed as a result of those studies to advocate their causes in local, state, and federal governments. Activists take these numbers and results to corporations and companies in defense of their community members' health and well-being.

1994 With the signing of Presidential Executive Order 12898, President Bill Clinton directs each federal agency to develop an Environmental Justice strategy "for identifying and addressing…disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

2000 EPA issues a landmark memorandum: "Statutory and Regulatory Authorities under Which Environmental Justice Issues May be Addressed in Permitting".

2001 EPA Administrator issues a memorandum on the integration of environmental justice into all Agency policies, programs, and activities.

2002 The Second People of Color Environmental Leadership Summit convenes in Washington, DC.

Ecologists whose work is relevant to Environmental Justice are involved in:

- Examining patterns of urban development and their ecological effects
- Understanding the value of ecosystems and the use of natural resources to human prosperity and health
- Identifying causes of and remedies for pollution
- Restoring and conserving degraded ecosystems
- Developing guidelines for effective and sustainable land management
- Developing new environmental technologies that integrate ecology, economics, environmental justice, technology, social science, and education

All of these efforts have an impact on how communities are affected, and they provide the scientific basis for developing non-discriminatory environmental policy decisions.

An ecologist samples bottom sediments for invertebrates, which are a good indicator of ecosystem health.

International Environmental Injustice

Although environmental injustice has been discussed mainly on a domestic level, there are numerous cases of *global* environmental injustice. Millions of metric tons of hazardous wastes are shipped to undeveloped countries to be disposed. Moreover, the effects of these pollutants are intensified as the recipient countries lack the resources to efficiently and correctly manage them and the public health problems they cause. In addition to the disposal of waste, minorities are often exposed to other risks, including air pollution and nuclear testing, of which the short and long-term effects are extremely hazardous. Environmental justice strives to institute mechanisms that regulate waste trade, chemical testing, and exposure to other pollutants, and inform the recipients about both the hazards and the measures needed to prevent problems from occurring.

Does your neighborhood have a pollution problem?

Check out www.scorecard.org and the pollution locator to figure out what is in your backyard.

Other websites that provide information on Environmental Justice:

Environmental Justice Resource Center at Clark Atlanta University
www.ejrc.cau.edu

The Environmental Protection Agency Environmental Justice Homepage
www.epa.gov/compliance/environmental justice

Ecojustice Network
www.igc.org

Environmental Justice Fund
www.ejfund.org

U.S. Long Term Ecological Research Network
www.lternet.edu

Community Coalition for Environmental Justice
www.ccej.org/ej.shtml

Environmental Defense
www.environmentaldefense.org

World Resources Institute
population.wri.org

Working Group on Environmental Justice
www.ecojustice.net

A student helps sort aquatic insects to be used in biological monitoring of water quality.

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