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2 Environmental Justice

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6 Industrial civilization yields costs and benefits.
7 Costs include environmental degradation and hazards
8 to health; benefits include technology and material
9 comfort.

10 Environmental justice is the equitable, or ethical, dis-
11 tribution across the population of the costs and benefits of
12 industrialization. Environmental injustice is the unethical
13 distribution of the costs and benefits of industrialization
14 based on some morally arbitrary attribute such as race,
15 nationality, gender, or socioeconomic status. Distribution
16 can be analyzed both domestically and globally. Defining
17 “ethical” in the context of environmental justice is the
18 purview of political philosophy.

19 Demography

20 Social, political, and economic dynamics result in the
21 collocation of industrial operations and low-income resi-
22 dential areas (see Fig. 1) at disproportionately higher rates
23 than middle-class and affluent communities. Evidence is
24 abundant. Altgeld Gardens, a low-income, predominantly
25 black community of Chicago, is ringed by toxic waste
26 incinerators, steel mills, landfills, sewage treatment plants,
27 and chemical and manufacturing plants. The toxins
28 released from these facilities are deleterious to residents’
29 health. The collocation of industry and habitation dates to
30 racist zoning policies of the 1920s. Houston placed all of
31 its landfills constructed between the 1920s and the 1980s
32 and six of its eight incinerators in African-American
33 neighborhoods. Zip code 90058, one of the most polluted
34 in the USA, is centered in Los Angeles’ largest Latino and
35 African-American neighborhoods. The one-square-mile
36 community is home to gigantic toxic waste incinerators
37 and waste dumps. Noxious factories expose employees
38 and residents to polychlorinated biphenyls (PCBs), asbes-
39 tos, lead, and pesticides.

Social scientists attribute the differential distribution 40
of industrial sites to corruption, corporations’ deliberate 41
targeting of low-income communities, municipalities’ 42
decisions to zone areas near low-income communities for 43
industrial development, and poor communities’ inability 44
to match the legal and political power of large corpora- 45
tions. In the 1980s, a private consulting firm recommended 46
to the California Waste Management Board that major 47
industrial facilities be sited in lower-income neighbor- 48
hoods, because middle- and upper-income communities 49
resist noxious facility siting with greater effectiveness. 50

51 Environmental Racism

52 Since the publication of a seminal report by the US Gen-
53 eral Accounting Office in 1983, industrial siting has been
54 associated with race. The United Church of Christ Com-
55 mission for Racial Justice identified race as the most sig-
56 nificant variable associated with the location of hazardous
57 waste sites in 1987. Five years later, two investigative
58 reporters named race as the common denominator in
59 Environmental Protection Agency (EPA) enforcement of
60 federal environmental law: penalties levied against indus-
61 tries for violating environmental laws were 46% higher in
62 white communities than minority communities, and
63 vacated toxic waste sites in minority areas took 20% longer
64 to be placed on the Superfund clean-up priority list than
65 sites in white communities. In this context, civil rights
66 leader Benjamin Chavis used the phrase “environmental
67 racism” in hearings before the US Congress in 1993.

68 Additional demographic data, however, suggest that
69 the common denominator of environmental injustice is
70 socioeconomic status, not race: some poor communities
71 that shoulder a disproportionate share of the costs of
72 industrialization are white. For example, when a leak of
73 methyl isocyanate at a Union Carbide plant in Bhopal,
74 India, killed 4,000 people, attention quickly shifted to
75 a similar Union Carbide plant in Kanawha Valley, West
76 Virginia, which is predominantly Caucasian and low
77 income. After the disaster in India, Kanawha Valley resi-
78 dents accused Union Carbide and EPA officials of
79 obstructing investigation of community health hazards.

80 For these reasons, the term “environmental injustice”
81 is more inclusive than “environmental racism.”



Environmental Justice. Fig. 1 The collocation of heavy industry and residence, Bytom, Poland (Photograph by Christopher Pillitz. Reprinted with permission of Getty Images)

History

The environmental justice movement has drawn inspiration from different sources. In Europe, the movement arose from Marxian critiques of class hierarchies; in non-Western nations, from critiques of colonialism; and in the USA, from the civil rights movement with precursors in the urban environmentalism of the 1920s. In the tradition of grass-roots activism, the mostly African-American community of Warren County – the poorest in North Carolina – mobilized in 1982 to fight a proposed PCB disposal site. In contrast, mainstream North American environmentalism, with its emphasis on natural resource conservation and wilderness preservation, was slow to acknowledge environmental justice as a serious ethical issue.

The legal foundation of environmental justice in the USA is the Civil Rights Act of 1964 Title VI, which forbids discrimination in any program receiving funding from the federal government. During the 1990s, the EPA investigated allegations of environmental discrimination under the Civil Rights Act, and in 1993 Congress passed the Environmental Equal Rights Act, the Environmental Health Equity Information Act, and the Environmental Justice Act. In 1994, President Bill Clinton signed an executive order on environmental justice.

Causality Between Low-Income Settlement and Industrialization

Research on the causal linkages between industrial siting and the intentional exploitation of the poor is

inconclusive. Although studies have found that low income, high minority demographics, and preponderance of rental property are common characteristics of heavily industrialized areas, not all researchers pinpoint poverty as antecedent to industrialization. These researchers have found no definite temporal ordering of low-income settlement with industrialization or industrialization with low-income settlement. These researchers instead relate the co-occurrence of the two with a third factor – the area itself. A piece of land suitable for industrial activity may simply be less attractive for housing: a boggy area with railroad and barge infrastructure would be unattractive to middle-class and affluent families as a place of residence.

Other researchers, however, discern a direct causal connection between low-income settlement and industrialization. There is a higher incidence of industrial siting in traditionally low-income areas than the relocation of persons of low socioeconomic status to areas with preexisting industrial development. More simply put, low-income communities attract industrial development to a greater degree than industrialized areas attract low-income tenants.

Epidemiology

Epidemiological data on the connection between industrialization and hazards to health are also inconclusive, although research has linked cancer to anthropogenic pollution. The Industrial Corridor of the Mississippi River, a heavily industrialized 85-mi. stretch of

138 petrochemical plants and oil refineries between Baton
139 Rouge and New Orleans, is a notable case. The EPA's
140 Toxic Release Inventory has reported that known carcin-
141 ogens are released into the environment along the Indus-
142 trial Corridor.

143 A study of 20 parishes (counties) along the Industrial
144 Corridor found a statistically significant correlation
145 between rectal cancer and drinking river water. Another
146 study established that people who were not employed by
147 the petrochemical industry but who lived within 1 mi. of
148 a petrochemical facility were four times more likely to die
149 of lung cancer than people not employed by the petro-
150 chemical industry living 2–4 mi. away. St. Bernard Parish
151 in metropolitan New Orleans has an abnormally high
152 incidence of cancer, especially lung cancer. In 1997, the
153 cancer death rate was 18% above the average in Louisiana
154 and 22% above the national average.

155 Other research casts doubts on causal connections
156 between industrialization and ill health. A study funded
157 by the State of Louisiana under the auspices of the Loui-
158 siana Tumor Registry concluded that the prevalence of
159 cancer along the Industrial Corridor is normal. Public
160 health officials have suggested that the higher incidence
161 of cancer around New Orleans might be caused by lifestyle
162 rather than environmental contamination: many residents
163 of the Industrial Corridor smoke tobacco and savor
164 a Cajun diet laden with fat. Health habits are important
165 enough for some public health officials to be reluctant to
166 draw definitive correlations between cancer and pollution,
167 and enough for other officials to disregard environmental
168 factors altogether.

169 **Ethical Theory and Environmental Justice**

170 Environmental justice is a problem for practical ethics.
171 Practical ethics is reasoning aimed at action, namely,
172 improving the human condition. The primary elucidations
173 of theories of environmental justice and injustice
174 are based in standard Utilitarian and Deontological
175 moral theory. (Utilitarianism and Deontology are
176 both anthropocentric. The elaboration of nonanthro-
177 pocentric environmental justice is beyond the scope of
178 this entry.)

179 Utilitarian environmental policy combines a free-
180 market political economy with an ontology of private
181 property. Adherents of Utilitarian environmental policy
182 believe that the public good is maximized when market
183 mechanisms work in concert with private property rights.
184 Thwarting the logic of market mechanisms exacerbates
185 socioeconomic inequity. Regulations induce corporations
186 to move operations, which depresses, rather than stimu-
187 lates, local economies. An economist familiar with the

Industrial Corridor has said bluntly: "Poverty kills a lot
188 more people than [a polluted] environment does." 189

190 The failure of Utilitarian environmental policy to
191 address environmental injustice is apparent when its fun-
192 damental assumptions are viewed *seriatim*. First, the
193 ontology of private property is suspect in the light of
194 regulatory reality. Two proponents of free-market envi-
195 ronmental policy reject the notion that environmental
196 injustice poses a problem for the ontology of private
197 property. Using the example of a landfill, they point out
198 that third parties (neither the landfill owner nor those
199 paying to dispose of their trash) have legal resources
200 should they be negatively affected by waste seepage. This
201 conclusion is logically weak because many landfills do not
202 succeed in sequestering their contents securely, and third
203 parties suffer harm as a result. Private property owners
204 routinely escape accountability for violations of environ-
205 mental law. For example, near Charleston, West Virginia,
206 drinking water contains arsenic, barium, lead, and man-
207 ganese at levels – sometimes exceeding federal regulations
208 by 1,000% – that cause organ failure. A local professor of
209 biology has observed that the chemicals flowing out of
210 water taps are the same as the chemicals that coal compa-
211 nies are pumping into the ground, yet no mining corpo-
212 ration has been cited or fined.

213 The ontology of private property is itself ecologically
214 unsound. Private property and political boundary lines
215 are artificial human constructions which pose no barrier
216 to pollution. Take, for example, the metropolitan area that
217 encompasses El Paso, Texas, and Ciudad Juarez, Chihua-
218 hua. Trucks registered in the USA emit 15 ppm of sulfur,
219 whereas Mexican trucks emit up to 500 ppm of sulfur.
220 Because El Paso and Ciudad Juarez share the same atmo-
221 spheric conditions, lax Mexican environmental regula-
222 tions negatively affect US citizens. Noxious pollutants
223 disperse by the law of osmosis and do not recognize legal
224 boundaries; noxious pollutants do not stop spreading at
225 a chain-link fence.

226 Utilitarian environmental policy also suffers from the
227 problem of classical Utilitarianism: the interests of
228 a majority may easily trump the interests of a minority,
229 even to the point of "legally" violating fundamental
230 human rights. Consider ExxonMobil in Indonesia. 230
231 ExxonMobil's development of natural gas resources in
232 the Aceh province of Sumatra has displaced Acehnese
233 from ancestral homelands. Although ExxonMobil makes
234 hundreds of millions of dollars in profit annually from its
235 Aceh operations, most Acehnese have seen no noticeable
236 improvement in their standards of living. Aceh villagers
237 have complained about the growing disparity between the
238 rich and the poor. In 2001 ExxonMobil hired elements of

239 the Indonesian military to serve as a private security detail
240 to suppress discontent, expressed by locals through van-
241 dalism of ExxonMobil property. In June, the International
242 Labor Rights Fund filed a lawsuit in the USA against
243 ExxonMobil on behalf of Acehnese villagers, alleging that
244 ExxonMobil aided and abetted Indonesian soldiers in
245 kidnapping, torture, rape, and murder by providing
246 a garrison where the abuses purportedly took place and
247 by providing construction equipment for digging mass
248 graves.

249 An environmental policy that is complicit in violations
250 of human rights in the name of profit maximization fails
251 to secure environmental justice.

252 An alternative ethical theory for articulating guiding
253 principles of environmental justice is based on the moral
254 philosophy of Deontology. Deontological environmental
255 policy is rooted in a moral philosophy of intrinsic
256 human value that respects autonomy and the right to
257 self-determination. Fundamental human rights cannot
258 be transgressed for other ends. These inviolable human
259 rights are codified internationally in the *Universal*
260 *Declaration of Human Rights*.

261 American philosopher John Rawls sketches a Deonto-
262 logical political philosophy that recognizes the intrinsic
263 value and inviolable rights of humankind's most disad-
264 vantaged. Rawls posits two fundamental principles of jus-
265 tice. The first is that persons have equal rights to basic
266 liberties. The second is that social and economic inequal-
267 ities are justified only if (a) those inequalities result from
268 a political process open to all, including those most nega-
269 tively affected, and (b) those inequalities are to the ben-
270 efit of everyone, including those most negatively affected.
271 Inequalities between the advantaged and disadvantaged
272 are justified if and only if the most disadvantaged benefit,
273 because those people would be worse off without the
274 inequity. For example, it might benefit the most disadvan-
275 taged to live in a society that pays medical doctors much
276 more than an average wage for the common good of
277 quality health care.

278 In terms of environmental justice, if the distribution of
279 the costs and benefits of industrialization diminishes
280 the liberty of a certain group of persons – the poor in
281 a developed nation or an indigenous group in a developing
282 nation – then the first principle has been violated. If the
283 benefits of industrialization are not shared by all, then the
284 first part of the second principle has been violated. If those
285 affected by industrialization are excluded from participa-
286 tion in the political process that determines the distribu-
287 tion of the costs and benefits of that industrialization, then
288 the second part of the second principle has been violated.

On the Rawlsian model, environmental injustice 289
occurs when a social group bears a disproportionate bur- 290
den of the costs of industrialization in comparison to 291
a wider population, and that group would be better off 292
without industrialization. Environmental justice is the 293
situation where a social group bears a disproportionate 294
burden of the costs of industrialization, yet that group 295
benefits more from an industrial economy than an agrar- 296
ian one and is thus materially better off. 297

Deontological environmental justice asserts that 298
the ethical distribution of the costs and benefits of indus- 299
trialization should never violate basic human rights, 300
which include, but are not limited to, access to nutritious 301
food, clean water, shelter, education, health care, and 302
intrahuman relationships. 303

In summary, because Deontology is a non- 304
consequentialistic ethical theory that enjoins the duty to 305
respect the intrinsic value of individuals, Deontological 306
environmental policy succeeds where Utilitarian environ- 307
mental policy fails. 308

Environmental Justice and Global Climate Destabilization 309

Given the latest surge of globalization, driven by the rise of 311
multinational corporations, it is essential to consider envi- 312
ronmental justice in the global context. A robust conception 313
of environmental justice rooted in Deontology includes the 314
right to participate in the political process regarding the 315
distribution of the costs and benefits of industrialization. 316
These two dimensions of environmental justice – participa- 317
tion and distribution – are no better illustrated than by the 318
issue of global climate destabilization. 319

Within the scientific community there is general con- 320
sensus that the atmosphere of the Earth is warming due to 321
anthropogenic causes related to the combustion of fossil 322
fuels – the engine of industry – and that climatic viciss- 323
tudes will amplify in the future as a result. The predicted 324
globally destabilized climate will produce searing droughts 325
and catastrophic floods and a sea-level rise of 20 ft or more. 326

The ideal of justice involves not only the distribution 327
of the economic costs and benefits of industrialization but 328
also access to participation in the political process of 329
determining the distribution of those costs and benefits. 330
The prospect of global climate destabilization brings to the 331
fore environmental justice in both its distributive and its 332
participatory dimensions. First, the world's impoverished 333
stand to bear the brunt of global climate destabilization 334
though they have not benefited from the technology and 335
wealth generated by industrial activity. Second, the people 336
most likely to suffer from global climate destabilization 337
have had the least participation in public policy decisions 338

339 concerning the global political economy – a violation of
340 the second part of Rawls’ second principle of justice.

341 Island nations are particularly vulnerable. A study by
342 the US National Oceanic and Atmospheric Administra-
343 tion identifies the Marshall Islands as one such “innocent
344 victim” of global warming. The Maldiv Islands, whose
345 highest point is only 8 ft, could be entirely obliterated. The
346 rich industrialized nations most responsible for global
347 climate destabilization sit at middle latitudes where effects
348 are predicted to be less severe. Moreover, industrialized
349 nations have already spent billions of dollars mitigating
350 anticipated negative consequences for themselves.

351 If an indigenous people’s homeland is rendered
352 uninhabitable by global climate destabilization, then that
353 people’s right to a traditional lifestyle has been crippled –
354 a violation of Rawls’ first principle of justice. Further,
355 those people would have been better off without industri-
356 alization – a violation of the first part of Rawls’ second
357 principle of justice. Following this logic the Inuit have
358 rightly cast the issue of global climate destabilization as
359 a human rights issue.

360 Some inequality in the distribution of the costs and
361 benefits of industrialization is ethical. Within a global
362 context, inequalities are justified if constitutive social
363 groups of nations that shoulder a disproportionate share
364 of the costs of industrialization (in the form of local
365 environmental degradation and health threats) are none-
366 theless better off with industrialization than without.

367 Related Topics

- 368 ▶ Autonomy
- 369 ▶ Basic Needs

- ▶ Basic Rights 370
- ▶ Borders 371
- ▶ Colonialism 372
- ▶ Duties 373
- ▶ Environmental Racism 374
- ▶ Global Justice 375
- ▶ Marxism 376
- ▶ Positive and Negative 377
- ▶ Quality of Life 378
- ▶ Rawls, John 379
- ▶ Universal Declaration of Human Rights 380
- ▶ Violence 381

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