Environment and Morality

Confronting Environmental Racism in the United States

Robert D. Bullard



This United Nations Research Institute for Social Development (UNRISD) Programme Paper was written for the 2001 UNRISD International Conference on Racism and Public Policy. This conference was carried out with the support of the United Nations Department of Economic and Social Affairs (UNDESA). UNRISD also thanks the governments of Denmark, Finland, Mexico, Norway, Sweden, Switzerland and the United Kingdom for their core funding.

Copyright © UNRISD. Short extracts from this publication may be reproduced unaltered without authorization on condition that the source is indicated. For rights of reproduction or translation, application should be made to UNRISD, Palais des Nations, 1211 Geneva 10, Switzerland. UNRISD welcomes such applications.

The designations employed in UNRISD publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of UNRISD concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The responsibility for opinions expressed rests solely with the author(s), and publication does not constitute endorsement by UNRISD.

Contents

Acronyms	ii
Summary/Résumé/Resumen Summary Résumé	iii iii iv
Resumen	vi
Introduction	1
The Global Environmental Landscape	2
Anatomy of Environmental Racism	2
The Quest for Environmental Justice	4
The Environmental Justice Framework	6
Safeguarding the Most Vulnerable Lead poisoning in children The geography of air pollution Toxic wastes and race Toxins and housing Toxins and schools Toxins and jobs	7 8 8 8 8 9 9
Threatened Native Lands	10
Military Toxins	10
Racism in Transportation	11
Examples of Landmark Environmental Racism Cases in the United States Citizens Against Toxic Exposure versus the EPA Citizens Against Nuclear Trash Coalition versus the Louisiana Energy Services St. James Citizens versus Shintech South Camden Residents versus the St. Lawrence Cement Company	12 12 13 16 16
Corporate Economics and Ecological Destruction	17
Environmental Economics	19
Discriminatory Land Use	20
Conclusion	21
Appendix: Principles of Environmental Justice	23
Bibliography	25
UNRISD Programme Papers on Identities, Conflict and Cohesion	31
Tables	
Table 1: African-American population by location in 1990, during the siting of a privately-owned uranium enrichment plant	14
Table 2: Population by race living within one-mile radius of LES candidate sites during siting process	15
Table 3: Corporate welfare in Louisiana	19

Acronyms

ACLU American Civil Liberties Union

CANT Citizens Against Nuclear Trash

CATE Citizens Against Toxic Exposure

CEQ Council on Environmental Quality

DoD United States Department of Defense

DOE United States Department of Energy

DOT United States Department of Transportation

EIS environmental impact statement

EJ Summit II Second National People of Color Environmental Leadership Summit

EJRC Environmental Justice Resource Centre

EPA United States Environmental Protection Agency

ER Environmental Report

FEIS Final Environmental Impact Statement

IOM Institute of Medicine of the National Academy of SciencesHUD United States Department of Housing and Urban Development

LAMTA Los Angeles Metropolitan Transit Authority

LULU Louisiana Energy Services locally unwanted land use

MIC methyl isocyanate

MRS Monitored Retrievable Storage

NAACP National Association for the Advancement of Colored People

NAACP LDF NAACP Legal Defense and Education Fund

NEJAC National Environmental Justice Advisory Council

NEPA National Environmental Policy Act

NIEHSNational Institute of Environmental Health Sciences

NIMBY not in my backyard

NGO non-governmental organization

NRC United States Nuclear Regulatory Commission

NRDC Natural Resources Defense Council

NPL National Priorities List of EPA Superfund sites

OFCD Organization for Economic Co-operation and Development

United States Occupational Safety and Health Administration

PCB polychlorinated biphenyl PIBBY place in blacks' backyard

PVC polyvinyl chloride

TRI Toxic Release Inventory

Summary/Résumé/Resumen

Summary

Environmental racism refers to any policy, practice or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups or communities based on race or colour. It combines with public policies and industry practices to provide benefits for corporations while shifting costs to people of colour. Government, legal, economic, political and military institutions reinforce environmental racism, and it influences local land use, enforcement of environmental regulations, industrial facility siting and the locations where people of colour live, work and play. The roots of environmental racism are deep and have been difficult to eliminate.

Environmental decision making often mirrors the power arrangements of the dominant society and its institutions. It disadvantages people of colour while providing advantages or privileges for corporations and individuals in the upper echelons of society. The question of who *pays* and who *benefits* from environmental and industrial policies is central to this analysis of environmental racism.

Environmental racism reinforces the stratification of *people* (by race, ethnicity, status and power), *place* (in central cities, suburbs, rural areas, unincorporated areas or Native American reservations) and *work* (in that office workers, for example, are afforded greater protections than farm workers). It institutionalizes unequal enforcement, trades human health for profit, places the burden of proof on the "victims" rather than the polluters, legitimizes human exposure to harmful chemicals, pesticides and hazardous substances, promotes "risky" technologies, exploits the vulnerability of economically and politically disenfranchised communities, subsidizes ecological destruction, creates an industry around risk assessment, delays cleanup actions and fails to develop pollution prevention and precaution processes as the overarching and dominant strategy.

Environmental decision making and local land-use planning operate at the intersection of science, economics, politics and special interests in a way that places communities of colour at risk. This is especially true in America's Deep South, which, by default, has become a "sacrifice zone", a sump for the rest of the nation's toxic waste, and is tarnished with the legacy of slavery, Jim Crow and white resistance to equal justice.

The southern United States is characterized by "look-the-other-way" environmental policies and giveaway tax breaks. Lax enforcement of environmental regulations has left the region's air, water and land the most industry-befouled in the United States. The Lower Mississippi River Industrial Corridor has over 125 companies that manufacture a range of products including fertilizers, gasoline, paints and plastics. Environmentalists and local residents have dubbed this corridor "Cancer Alley", and tax breaks given to polluting industries have created few jobs at a high cost. This is particularly true in Louisiana. A 1998 *Time* magazine article reported that in the 1990s, Louisiana wiped off the books \$3.1 billion in property taxes to polluting companies. The state's top five polluters have received \$111 million over the past decade.

There is a direct correlation between exploitation of land and exploitation of people. Native Americans have to contend with some of the worst pollution in the United States, and the places where they live are prime targets for landfills, incinerators, garbage dumps and risky mining operations. Pollution from industries is showing up in the Akwesasne mothers' milk in New York. Native American reservations are under siege from "radioactive colonialism".

The legacy of institutional racism has left many sovereign Indian nations without an economic infrastructure to address poverty, unemployment, inadequate education and health care, and a host of other social problems.

Environmental racism is also evident at the global level. Shipping hazardous wastes from rich to poor communities is not a solution to the growing global waste problem. Transboundary shipment of banned pesticides, hazardous wastes and toxic products, and export of "risky technologies" from the United States, where regulations and laws are more stringent, to nations with weaker infrastructure, regulations and laws, smacks of a double standard. Unequal interests and power arrangements have allowed poisons of the rich to be offered as short-term remedies for poverty of the poor. This scenario plays out domestically (in the United States, where low-income and people of colour communities are disproportionately impacted by waste facilities and "dirty" industries) and internationally (where hazardous wastes move from countries of the Organisation for Economic Co-operation and Development/OECD to non-OECD states).

Endangered people of colour in the industrialized countries of the North have much in common with populations in developing countries that are also threatened by industrial polluters. For example, grassroots groups from Norco, Louisiana, to Ogoni, Nigeria, identified Shell Oil as a common threat. Environmental justice activists have mobilized in central city ghettos, barrios and villages from Atlanta to the Arctic Circle, Alaska to South Central Los Angeles, South Africa to rural Native American reservations and rainforests in Colombia, Ecuador, El Salvador and Brazil. These groups have organized, educated and empowered themselves to challenge government and industrial polluters.

Environmental racism manifests itself in the substandard treatment of workers. Thousands of farm workers and their families are exposed to dangerous pesticides on the job and in the labour camps. These workers also have to endure substandard wages and work conditions. Environmental racism also extends to the exploitative work environment of garment district sweatshops, the microelectronic industry and extraction industries. A disproportionately large share of the workers who suffer under substandard occupational and safety conditions are immigrants, women and people of colour.

Robert D. Bullard is the Ware Distinguished Professor of Sociology and Director of the Environmental Justice Resource Centre (EJRC) at Clark Atlanta University, United States.

Résumé

On entend par racisme environnemental toute politique, pratique ou directive qui touche différemment ou défavorise (intentionnellement ou non) des individus, des groupes ou des communautés en raison de leur race ou de leur couleur. Le racisme environnemental s'allie aux politiques publiques et aux pratiques industrielles pour enrichir les sociétés commerciales tout en faisant supporter les coûts par les populations de couleur. Le gouvernement, les institutions judiciaires, économiques, politiques et militaires renforcent ce racisme, et cela se répercute sur l'aménagement local du territoire, l'application des lois relatives à l'environnement, l'emplacement des sites industriels et les lieux de vie, de travail et de jeu des gens de couleur. Les racines du racisme environnemental sont profondes et difficiles à arracher.

La prise de décision en matière environnementale reflète souvent la constellation du pouvoir dans la société dominante et ses institutions. Elle défavorise les populations de couleur tout en accordant des avantages ou des privilèges aux grandes entreprises et aux individus des couches supérieures de la société. Qui *paie* les politiques environnementales et industrielles et qui en *profite*? Cette question tient une place centrale dans l'analyse du racisme environnemental.

Celui-ci accentue la stratification de la *population* (par race, ethnie, situation sociale et puissance), de *l'espace* (en centre-ville, banlieues, régions rurales, régions inexploitées ou réserves des Amérindiens) et du *travail* (en ce sens que le personnel de bureau, par exemple, est mieux protégé que les travailleurs agricoles). Il institutionnalise l'inégalité dans l'application de la loi, brade la santé pour le profit, fait porter la charge de la preuve aux "victimes" plutôt qu'aux pollueurs, justifie l'exposition à des substances chimiques nocives, à des pesticides et à des substances dangereuses, défend des technologies "à risque", exploite la vulnérabilité de com-

munautés privées de leurs droits économiques et politiques, subventionne la dégradation de l'environnement, crée toute une industrie autour de l'évaluation des risques, retarde les opérations de nettoyage et a pour stratégie dominante et générale de négliger la mise au point de procédés visant à prévenir la pollution et de procédures de précaution.

Les décisions relatives à l'environnement et à l'aménagement local du territoire se prennent à l'intersection de la science, de l'économie, de la politique et d'intérêts particuliers, et selon des modalités qui font courir de grands risques aux communautés de couleur. C'est particulièrement vrai dans le sud profond des Etats-Unis qui est devenu, par défaut, une "zone sacrifiée", une fosse où se déversent les déchets toxiques du reste du pays, et qui traîne toujours l'héritage de l'esclavage, de Jim Crow, et de la résistance des Blancs à l'égalité de tous devant la justice.

Le sud des Etats-Unis se caractérise par des politiques environnementales qui consistent simplement à regarder de l'autre côté et en cadeaux fiscaux. Une application laxiste des lois sur l'environnement a fait de cette région celle des Etats-Unis où l'air, l'eau et la terre sont les plus pollués par l'industrie. Le couloir industriel du bas de la rivière Mississipi compte plus de 125 sociétés qui fabriquent des produits aussi divers que des engrais, de l'essence, des peintures et du plastique. Les écologistes et les habitants l'ont surnommé "l'Allée du cancer". Les exemptions fiscales accordées aux industries polluantes ont créé peu d'emplois, mais au prix fort. C'est particulièrement vrai en Louisiane. Selon un article du magazine *Time* publié en 1998, la Louisiane a exempté les sociétés polluantes de 3,1 milliards de dollars d'impôt sur la propriété dans les années 90. Les cinq plus grands pollueurs de l'Etat ont reçu 111 millions de dollars en dix ans.

Il existe une corrélation directe entre l'exploitation de la terre et celle des gens. Les Amérindiens doivent faire face aux pires formes de pollution que l'on trouve aux Etats-Unis et les endroits où ils vivent sont les premiers choisis comme sites d'enfouissement des déchets, d'incinérateurs, de décharges publiques ou d'exploitations minières à haut risque. La pollution industrielle est décelable dans le lait des mères akwesasnes vivant à New York. Les réserves amérindiennes sont assiégées par le "colonialisme radioactif".

L'héritage du racisme institutionnel est tel que de nombreuses nations indiennes souveraines sont aujourd'hui privées de l'infrastructure économique qui leur permettrait de lutter contre la pauvreté et le chômage, de remédier au manque d'éducation et de soins de santé et de résoudre d'autres problèmes sociaux.

Le racisme environnemental est également visible au niveau mondial. Le transport des déchets dangereux des pays riches vers les pays pauvres ne contribue pas à résoudre le problème des déchets, qui s'aggrave au niveau mondial. L'expédition de pesticides interdits, de déchets dangereux et de produits toxiques et l'exportation de "technologies à risque" des Etats-Unis, où les lois et règlements sont plus stricts, vers des pays dont l'infrastructure, les lois et règlements sont moins développés, sont révélatrices du "deux poids, deux mesures". Des intérêts inégaux et certains arrangements de pouvoir ont permis les poisons des riches soient offerts aux pauvres comme remèdes à court terme contre la pauvreté. Ce scénario a cours à l'intérieur des pays (aux Etats-Unis, où les déchets et les industries "sales" vont de manière disproportionnée là où vivent les communautés de couleur et à bas revenu) comme au niveau international (où les déchets dangereux se déplacent des pays membres de l'Organisation de coopération et de développement économiques (OCDE) vers des pays qui n'en sont pas membres).

Par les risques auxquels elles sont exposées, les populations de couleur des pays industrialisés du Nord ont beaucoup en commun avec les populations des pays en développement du Sud, qui sont aussi menacées par les industries polluantes. Par exemple, de Norco, en Louisiane à Ogoni, au Nigéria, les organisations de la base voient dans les pétroles Shell la même menace. D'Atlanta jusqu'au cercle polaire, d'Alaska au centre-sud de Los Angeles, d'Afrique du Sud jusque dans les réserves rurales des Amérindiens et les forêts humides de Colombie, de l'Equateur, d'El Salvador et du Brésil, des militants prônant la justice environnementale se sont

mobilisés dans les ghettos des centres-villes, les barrios et les villages. Ces groupes se sont organisés, instruits et armés pour se dresser contre le gouvernement et les pollueurs industriels.

Le racisme environnemental se manifeste dans la façon indigne dont les travailleurs sont traités. Des milliers de travailleurs agricoles et leurs familles sont exposés à des pesticides dangereux dans le travail et sur leur lieu de travail. Ces travailleurs doivent accepter des salaires de misère et des conditions de travail qui ne répondent à aucune norme. Le racisme environnemental se traduit aussi par l'exploitation de la main-d'œuvre dans les ateliers de misère de confection de vêtements et les industries de microélectronique et d'extraction. Ceux qui sont victimes de conditions de travail abusives et dont la sécurité n'est pas respectée sont, dans leur grande majorité, des immigrants, des femmes et des gens de couleur.

Robert D. Bullard est professeur de sociologie, lauréat du prix de l'enseignement dit "Ware Distinguished", et dirige le Environmental Justice Resource Center à la Clark Atlanta University, Etats-Unis.

Resumen

El racismo ambiental se refiere a cualquier política, práctica o directiva que afecta o perjudica de formas diferentes (voluntaria o involuntariamente) a personas, grupos o comunidades por motivos de raza o color. Se asocia con políticas públicas y prácticas industriales encaminadas a favorecer a las empresas y a imponer los costos a las personas de color. Las instituciones gubernamentales, jurídicas, económicas, políticas y militares refuerzan el racismo ambiental e influyen en la utilización local de la tierra, la aplicación de las normas ambientales, el establecimiento de instalaciones industriales, y los lugares donde viven, trabajan y juegan las personas de color. El racismo ambiental está muy arraigado y ha sido difícil de erradicar.

La toma de decisiones medioambientales muchas veces refleja los acuerdos de poder de la sociedad predominante y sus instituciones. Esto perjudica a las personas de color, mientras que ofrece ventajas y privilegios para las empresas y las personas de las capas más altas de la sociedad. La cuestión de quién *paga* y quién *se beneficia* de las políticas medioambientales e industriales es fundamental en este análisis del racismo ambiental.

El racismo ambiental refuerza la estratificación de las *personas* (por raza, etnicidad, status social y poder), el *lugar* (en ciudades centrales, barrios periféricos, zonas rurales, zonas no incorporadas o reservas de los nativos americanos) y *el trabajo* (por ejemplo, se ofrece una mayor protección a los trabajadores de oficina que a los trabajadores agrícolas). Institucionaliza la aplicación desigual de la legislación; explota la salud humana para obtener beneficios; impone la carga de la prueba a las "víctimas" en lugar de a las empresas contaminantes; legitima la exposición humana a productos químicos nocivos, pesticidas y sustancias peligrosas; promueve tecnologías "peligrosas"; explota la vulnerabilidad de comunidades privadas de sus derechos económicos y políticos; subvenciona la destrucción ecológica; crea una industria especializada en la evaluación de riesgos ambientales; retrasa las acciones de eliminación de residuos y no desarrolla procesos precautorios contra la contaminación, como estrategia principal y predominante.

La toma de decisiones medioambientales y la planificación del uso de la tierra a nivel local se llevan a cabo en medio de los intereses científicos, económicos, políticos y especiales, de tal forma que exponen a las comunidades de color a una situación peligrosa. Esto es particularmente cierto en el Sur Profundo de Estados Unidos que, por defecto, se ha convertido en una "zona de sacrificio", un pozo negro para los residuos tóxicos del país, y está empañado por el legado de la esclavitud, Jim Crow y la resistencia blanca a la justicia equitativa para todos.

El sur de Estados Unidos se caracteriza por políticas medioambientales "que miran hacia el lado contrario" y por el otorgamiento de deducciones fiscales. La aplicación laxa de las normas medioambientales ha dado lugar a que el aire, el agua y la tierra de la región sean los más contaminados por la industria en Estados Unidos. En el Corredor Industrial del Bajo Mississippi en Luisiana

se han establecido más de 125 empresas que fabrican diversos productos, incluidos fertilizantes, gasolina, pintura y plástico. Los ecologistas y residentes locales lo han apodado "el Callejón del Cáncer", y las deducciones fiscales que reciben las industrias contaminantes han creado pocos puestos de trabajo por un costo elevado. Esto es particularmente cierto en Luisiana. En 1998, un artículo de la revista *Time* puso de relieve que Luisiana había borrado de sus cuentas 3,100 millones de dólares en impuestos sobre propiedades de empresas contaminantes. Las cinco compañías más contaminantes del Estado han recibido 111 millones de dólares en el último decenio.

Existe una correlación directa entre la explotación de la tierra y la explotación de las personas. Los nativos americanos tienen que enfrentarse a algunas de las peores formas de contaminación de Estados Unidos, y los lugares en los que viven son los principales objetivos para vertederos de residuos y de basura, incineradores y operaciones mineras peligrosas. La contaminación industrial está manifestándose en la leche materna de las madres de Akwesasne en Nueva York. Las reservas de nativos americanos están siendo sitiadas por el "colonialismo radioactivo".

El legado del racismo institucional ha privado a muchas naciones indias soberanas de una infraestructura económica para combatir la pobreza, el desempleo, la educación y la atención a la salud inadecuadas, y otros muchos problemas sociales.

El racismo ambiental también es evidente a escala mundial. El transporte de residuos peligrosos de las comunidades ricas a las comunidades pobres no soluciona el creciente problema de los desechos a nivel mundial. El transporte transfronterizo de pesticidas prohibidos, residuos peligrosos y productos tóxicos, y la exportación de "tecnologías peligrosas" de Estados Unidos, donde la regulación y legislación son más rigurosas, a naciones con una infraestructura y una legislación más débiles, pone de manifiesto la desigualdad normativa. Los distintos intereses y los acuerdos de poder han permitido que las sustancias venenosas de los ricos se ofrezcan a los pobres como remedio a corto plazo para su pobreza. Esta situación se observa tanto en el plano nacional (en Estados Unidos, donde las instalaciones de residuos y las industrias "sucias" afectan desproporcionadamente a las comunidades de bajos ingresos y de personas de color), como en el plano internacional (donde los residuos peligrosos se transportan de los países miembros de la Organización para la Cooperación y el Desarrollo Económicos (OCDE) a los Estados no pertenecientes a la misma).

Las personas de color que se hallan en peligro en los países industrializados del norte tienen mucho en común con las poblaciones de los países en desarrollo que también están amenazadas por las empresas contaminantes. Por ejemplo, grupos comunitarios de Norco (Luisiana) a Ogoni (Nigeria) identificaron Shell Oil como una amenaza común. Los activistas de la justicia medioambiental se han movilizado en guetos del centro de las ciudades, barrios y pueblos, desde Atlanta hasta el Círculo Ártico, de Alaska al sur-centro de Los Ángeles, de Sudáfrica a las reservas rurales de los nativos americanos y las selvas tropicales en Colombia, Ecuador, El Salvador y Brasil. Estos grupos se han organizado, educado y empoderado a sí mismos para desafiar al gobierno y a las empresas industriales contaminantes.

El racismo ambiental se manifiesta en el trato desigual que reciben los trabajadores. Miles de trabajadores agrícolas y sus familias están expuestos a pesticidas peligrosos en el lugar de trabajo y en los campos donde trabajan. También tienen que soportar salarios y condiciones de trabajo inferiores al nivel medio. El racismo ambiental también se extiende al entorno del trabajo explotador en las esclavizantes manufactureras de ropa de los distritos, la industria microelectrónica y las industrias de extracción. Un porcentaje desproporcionadamente elevado de trabajadores que se enfrentan a condiciones laborales y de seguridad ínfimas son inmigrantes, mujeres y personas de color.

Robert D. Bullard es Profesor emérito (Ware Distinguished Research Award) de Sociología y Director del Environmental Justice Resource Centre (EJRC) en Clark Atlanta University, Estados Unidos.

Introduction

Racism is a potent factor in sorting people into their physical environments. Racism influences land use, housing patterns and infrastructure development (Bullard et al. 2000) and remains an important factor in explaining social inequality, political exploitation, social isolation and problems with the health and well-being of blacks and other people of colour in the United States.¹ Apartheid-type housing and development policies account for the extreme environmental degradation of communities of colour and have resulted in limited mobility, reduced neighbourhood options, decreased environmental choices and diminished job opportunities for the people of these communities (Bullard et al. 1994). Race still plays a significant part in distributing public "benefits" and public "burdens" associated with economic growth. In fact, minority communities and communities of colour are often victims of land-use decision making that mirrors the power arrangements of the dominant society.

The roots of discrimination are deep and have been difficult to eliminate. Home ownership is still a major part of the "American Dream". Housing discrimination contributes to the physical decay of inner-city neighbourhoods and denies a substantial segment of African-Americans and other people of colour a basic form of wealth accumulation and investment through home ownership (Roisman 1995). The number of African-American homeowners would probably be higher in the absence of discrimination by lending institutions (Feagin 1994). As it stands, only about 59 per cent of the nation's middle-class African-Americans own their homes, compared with 74 per cent of whites.

Eight out of every 10 African-Americans live in neighbourhoods where they are in the majority. Residential segregation decreases for most racial and ethnic groups with additional education, income and occupational status. However, this scenario does not hold true for African-Americans who, regardless of educational or occupational achievement or income level, are exposed to higher crime rates, less effective educational systems, higher mortality risks, more dilapidated surroundings and greater environmental threats than their white counterparts.

Thus, institutional racism continues to influence housing and mobility options available to African-Americans of all income levels, and is a major factor influencing the quality of neighbourhoods available to them. The "web of discrimination" in the housing market is a result of action and inaction of local and federal government officials, financial institutions, insurance companies, real estate marketing firms and zoning boards. More stringent enforcement mechanisms and penalties are needed to combat all forms of negligence, neglect and discrimination by all of these institutional actors.

Moreover, there is a direct correlation between exploitation of land and exploitation of people. It is not surprising that Native Americans have to contend with some of the worst pollution in the United States.²

Needless to say, such threats to indigenous peoples are not solely confined to the United States. Native and indigenous peoples across the globe are threatened with illness, and in some cases even extinction, due to some of the operations of mining and oil companies. Sociologist Al Gedicks' 2001 book, *Resource Rebels: Native Challenges to Mining and Oil Corporations*, traces the development of the grassroots multiracial, transnational movement that is countering this form of environmental racism (Gedicks 2001). For example, over 5,000 members of the U'Wa tribe of Colombia organized to prevent Occidental Petroleum from drilling on sacred U'Wa land. In May 2002, after spending six months drilling for oil on U'Wa land, Occidental pulled its operations from the region (Banks 2002).

¹ Marx 1998; Bullard 2000; Agyeman et al. 2003.

² Beasley 1990a; Tomsho 1990; Kay 1991; Taliman 1992a, 1992b.

The Global Environmental Landscape

Despite significant improvements in environmental protection over the past several decades, over 1.3 billion individuals worldwide live in unsafe and unhealthy physical environments (Bullard 1993a). Hazardous waste generation and international movement of hazardous waste and toxic products pose considerable health, environmental, legal, political and ethical dilemmas (Center for Investigative Reporting and Moyers 1990).

The destruction and degradation of indigenous peoples' land and sacred sites, and of the health and quality of life of Native Americans on reservations, Africans in the Niger Delta, African-Americans in Louisiana, Mexicans in the border towns and Puerto Ricans on the Island of Vieques, Puerto Rico, all have their roots in economic exploitation, racial negligence and oppression, devaluation of human life and the natural environment, and the dominance of financial profits over other quality of life variables (Agyeman et al. 2003).

Unequal interests and unequal power arrangements have allowed corporate wastes and toxins to be offered as short-term remedies for poverty. Poor people are often forced to accept risks associated with toxic waste and hazardous jobs that more affluent people can refuse (Bullard 2001). The last decade has seen numerous developing nations challenge the "unwritten policy" of member countries of the Organisation for Economic Co-operation and Development (OECD) shipping hazardous wastes over their borders.

Why are some communities targeted for hazardous misuse while others are not? Why are environmental regulations vigorously enforced in some communities and not in others? Why are some workers protected from environmental and health threats while others, such as migrant farm workers, are expected to accept severe and even life-threatening hardships as part of their conditions of service? How can environmental justice be incorporated into environmental protection policies? What institutional changes are needed in order to achieve an ecologically just and sustainable society? What community organizing strategies and public policies constitute the most effective tools against environmental racism?

This paper analyses the causes and consequences of environmental racism and the strategies environmental justice groups, community-based organizations and government agencies can use to improve the quality of life of their constituents. While the issues discussed are duplicated throughout the world, this paper focuses principally on the US experience.

Anatomy of Environmental Racism

The US economy has generated massive wealth, a high standard of living and consumerism. However, this growth has also generated waste, pollution and ecological destruction. Although the United States has some of the best environmental laws in the world, all communities are not treated equally. Environmental regulations have not achieved uniform benefits across all segments of society (Collin and Collin 1998; Cole and Foster 2001). Some communities are routinely subjected to various types of environmental hazards while the government looks the other way (Karliner 1997).

People of colour around the world routinely contend with unclean and often polluted air and drinking water, and with facilities such as municipal landfills, incinerators and hazardous waste treatment, storage and disposal facilities owned by private industry, government and even the military.³ These environmental problems are exacerbated by both overt racism and racial negligence.

³ Bullard 1993a; Alston 1992; Westra and Wentz 1995; Robinson 2000; Cole and Foster 2001.

Environmental racism refers to any environmental policy, practice or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups or communities based on race or colour (Bullard 1993a). Environmental racism is reinforced by government, legal, economic, political and military institutions. This type of racism combines with public policies and industry practices to provide *benefits* for countries in the North while shifting costs to countries in the South.⁴

Reverend Benjamin F. Chavis, one of the founders of the environmental justice movement, defines environmental racism as

discrimination in environmental policy making. It is racial discrimination in the official sanctioning of the life-threatening presence of poisons and pollutants in communities of colour. And it is racial discrimination in the history of excluding people of colour from the mainstream of environmental groups, decision making boards, and regulatory bodies (Chavis 1993:3).

Racism is carried out by members of dominant racial or ethnic groups and has differential and negative impacts upon members of subordinate racial and ethnic groups (Feagin and Feagin 1986). From the outset, racism has contributed to shaping the economic, political and ecological landscape of the United States, which was founded, in part, on the principles of "free land" taken from Native Americans and Mexicans, "free labour" by African slaves, and "free men" (only white men with property had the right to vote). From the outset, racism contributed to shaping the economic, political and ecological landscape of this new nation (Doob 1993).

Environmental racism has buttressed the exploitation of land, people and the natural environment. It operates, in effect, as an *intra-nation* power arrangement—especially where ethnic or racial groups form a political and/or numerical minority, such as in the United States, where blacks form both a political and numerical racial minority. On the other hand, blacks in South Africa, under apartheid, constituted a political minority and numerical majority. American and South African apartheid had devastating environmental impacts on blacks.⁵

Environmental racism also operates in the *international* arena between and among nations and transnational corporations. Increased globalization of the world's economy has placed special strains on the ecosystems of many low-income communities and poor nations inhabited largely by people of colour and indigenous peoples. This is especially true for the global resource extraction industries, including oil, timber and minerals.⁶ Moreover, globalization and the free market movement have made capital flight easier, and transnational corporations can move their operations and their capital to areas with the fewest environmental regulations, the best tax incentives, the least expensive labour and the highest profit.

The struggle of African-Americans in Norco, Louisiana, and Africans in the Niger Delta are similar in that both groups are negatively impacted by Shell Oil refineries and unresponsive governments (Okonta and Douglas 2001). This scenario is repeated for Latinos in Wilmington, California, and indigenous people in Ecuador, who must contend with pollution from Texaco oil refineries (Robinson 2000). The companies may differ, but the community complaints and concerns are very similar. Local residents have seen their air, water and land contaminated, and they continually struggle with problems such as inadequate roads, poorly planned emergency escape routes and faulty warning systems. Many residents in such communities live in constant fear of plant explosions and accidents (Bullard 2000).

For example, the Bhopal tragedy is still fresh in the minds of millions of people who live next to chemical plants. In 1984, in Bhopal, India, there was a gas leak at the Union Carbide plant that

⁴ Godsil 1990; Colquett and Robertson 1991; Collin 1992; Bullard 1993a, 1999, 2000.

Kalan 1994; Durning 1990; South African Department of Environment and Tourism 1996; McDonald 2002.

⁶ Gedicks 2001; LaDuke 1999; Karliner 1997.

manufactured methyl isocyanate (MIC), which killed thousands of people, making it the world's deadliest industrial accident. It is not a coincidence that the only place in the United States where MIC was manufactured was at a Union Carbide plant in the predominately African-American town of Institute, West Virginia (Bullard 2000), and where, in 1985, a gas leak from the Institute Union Carbide plant sent 135 residents to the hospital.

Institutional racism has allowed people of colour communities to exist, in effect, as "colonies": areas that form dependent (and unequal) relationships to the dominant society with regard to their social, economic, legal and environmental administration. Writing more than three decades ago, Carmichael and Hamilton (1967) in their work *Black Power*, offered the "internal" colonial model to explain racial inequality, political exploitation and the social isolation of African-Americans. According to Carmichael and Hamilton:

The economic relationship of America's black communities...reflects their colonial status. The political power exercised over those communities go hand in glove with the economic deprivation experienced by the black citizens. Historically, colonies have existed for the sole purpose of enriching, in one form or another, the 'colonizer'; the consequence is to maintain the economic dependency of the 'colonized' (pp. 16–17).

Institutional racism reinforces a form of internal colonialism, and government institutions permit, and even buttress, this insidious type of domination. Institutional racism defends, protects and enhances the social advantages and privileges of rich communities and nations to the detriment of others. Whether by design or neglect, communities of colour (ranging from urban ghettos and barrios to rural poverty pockets to economically impoverished Native American reservations) face overwhelming environmental and ecological problems. The most polluted communities are all too often also those with crumbling infrastructure, economic disinvestment, deteriorating housing, inadequate schools, chronic unemployment, high poverty and overloaded health care systems (Bullard 1996; Pellow 2002).

The Quest for Environmental Justice

The environmental justice movement has its roots in the United States, but in just two decades, this grassroots movement has spread across the globe (Bullard 1990, 1993a, 1996). The call for environmental justice can be heard from the ghettos of Southside Chicago to the Soweto township. The environmental justice movement has come a long way since its humble beginnings in 1982 in Warren County, North Carolina, where a polychlorinated biphenyl (PCB) landfill ignited protests that resulted in over 500 arrests. These protests provided the impetus for a US General Accounting Office study in 1983, Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities. The study revealed that three out of four of the off-site, commercial hazardous waste landfills in the region (Region Four,⁷ comprising eight states in the southern United States) were located in predominantly African-American communities, although African-Americans made up only 20 per cent of the region's population (US General Accounting Office 1983).

After waiting more than two decades, an environmental justice victory finally came to the residents of predominately black Warren County residents. Since 1982, county residents had lived with the legacy of a 142-acre toxic waste dump. Detoxification work began on the dump in June 2001 and the last clean-up operations were slated to end the latter part of December 2003 (Armstrong 2003). State and federal sources spent \$18 million to detoxify or neutralize contaminated soil stored at the Warren County PCB landfill. A private contractor hired by the state dug up and burned 81,500 tons of oil-laced soil in a kiln that reached more than 800 degrees

The EPA divides the United States into 10 regions, each of which is assigned a regional office.

Fahrenheit in order to remove the PCBs. The soil was put back in a football-sized pit, re-covered to form a mound, graded and seeded with grass.

The protests also led the Commission for Racial Justice to produce Toxic Waste and Race in 1987, the first national study to correlate waste facility sites and demographic characteristics. Race was found to be the most potent variable in predicting where these facilities were located-more powerful than poverty, land values and home ownership. In 1990, Dumping in Dixie: Race, Class, and Environmental Quality chronicled the convergence of two critical social movements, the social justice and environmental movements, into the environmental justice movement (Bullard 2000). African-American environmental activism emerged initially from the southern United States, the same region that gave birth to the modern civil rights movement. What started out as local, and often isolated, community-based struggles against toxins and hazardous facility siting blossomed into a multi-issue, multiethnic and multiregional movement.

The 1991 First National People of Color Environmental Leadership Summit was probably the most important single event in the movement's history. The summit broadened the environmental justice movement beyond its anti-toxics focus to include issues of public health, worker safety, land use, transportation, housing, resource allocation and community empowerment (Charles Lee 1992). The meeting also demonstrated that it is indeed possible to build a multiracial grassroots movement around environmental and economic justice issues (Alston 1992).

Held in Washington, DC, the four-day summit was attended by over 1,000 grassroots and national leaders from around the world, and delegates came from all 50 states including Alaska and Hawaii, as well as from Puerto Rico, Brazil, Chile, Mexico, Ghana, Liberia, Nigeria and the Marshall Islands. People attended the summit to exchange information, share relevant action strategies, redefine the environmental movement and develop common plans for addressing environmental problems affecting people of colour in the United States and abroad.

In September 1991, summit delegates adopted 17 Principles of Environmental Justice (see appendix), which were developed as a guide for organizing, networking and interacting with government and non-governmental organizations (NGOs). By June 1992, Spanish and Portuguese translations of the principles were being circulated and utilized by NGOs and environmental justice groups at the United Nations Conference on Environment and Development, or the Earth Summit, in Rio de Janeiro, Brazil.

In October 2002, environmental justice leaders convened the Second National People of Color Environmental Leadership Summit (EJ Summit II) in Washington, DC. The EJ Summit II organizers planned the four-day meeting for 500 participants. Over 1,400 individuals representing grassroots and community-based organizations, faith-based groups, organized labour, civil rights, youth and academic institutions made their way to the nation's capital to participate in the historic gathering.

The vast majority – over 75 per cent – of EJ Summit II attendees came from community-based organizations and brought together three generations (elders, seasoned leaders and youth activists) of the environmental justice movement. The "new" faces, who had not been present at the First National People of Color Environmental Leadership Summit in 1991, outnumbered the veteran environmental justice leaders two to one.

The EJ Summit II attendees came from nearly every state in the United States and the Commonwealth of Puerto Rico. The summit also had an international flavour, with nationalities from all over the world represented. Delegates came from a diverse range of countries, including Canada, Colombia, Dominican Republic, Ecuador, Granada, Guatemala, India, Jamaica, Marshall Islands, Mexico, Nigeria, Panama, Peru, Philippines, South Africa, Trinidad and the United Kingdom.

A nationwide call for resource policy papers resulted in over 20 resource papers on subjects ranging from childhood asthma, energy, transportation, "dirty" power plants, climate justice, military toxics, clean production, brownfield⁸ redevelopment, sustainable agriculture, human rights, occupational health and safety, and farm workers. The resource papers helped guide the workshops and hands-on training sessions.

Women led, moderated or presented in more than half of the 86 workshops and general sessions, and EJ Summit II leaders honoured 12 outstanding "sheroes" (female heroes) of the movement in a Crowning Women Awards Dinner. The awards event was dedicated to the late Dana Alston and Jean Sindab, two giants of the environmental justice movement, and other women of colour now deceased, who dedicated their lives to environmental justice. Two of the outstanding sheroes later were singled out for national awards. For their work, Peggy Shepard (West Harlem Environmental Action, Inc.) was awarded the prestigious 2003 Heinz Award in the area of environment and Margie Richard (Concerned Citizens of Norco, Los Angeles) was awarded the 2004 Goldman Environmental Prize for North America. The Goldman Environmental Prize is given each year to six environmental heroes, one from each of six continental regions: Africa, Asia, Europe, Island Nations, North America and South/Central America.

The Environmental Justice Framework

The dominant environmental protection paradigm manages, regulates and distributes risks (Bullard 1996). It also institutionalizes unequal enforcement, sacrifices health issues for profit ratios, often places the burden of proof on victims rather than on industrial polluters, legitimizes human exposure to harmful chemicals, pesticides and hazardous substances, promotes "risky" technologies, exploits the vulnerability of economically and politically disenfranchised communities, subsidizes ecological destruction, creates an industry around risk assessment and risk management, delays cleanup actions and fails to develop pollution prevention policies. This is the case despite the fact that such policies should, in fact, be the overarching and dominant strategy of the paradigm.⁹

The US Environmental Protection Agency (EPA) defines environmental justice as 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. Fair treatment means that no group of people, including racial, ethnic or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies (EPA 1998:2).

In 1992, the EPA published *Environmental Equity: Reducing Risks for All Communities*. This was the first time the agency embarked upon a systematic examination of environmental risks to communities of colour (EPA 1992). Environmental equity may mean different things to different people, and equity is distilled into three broad categories: procedural, geographic and social.

Procedural equity refers to the issue of "fairness": the extent to which governing rules, regulations, evaluation criteria and enforcement are applied uniformly and in a non-discriminatory way. Unequal protection may result from unscientific and/or undemocratic decisions, exclusionary practices, public hearings held in remote locations and at inconvenient times, and use of English-only materials when communicating or conducting hearings for the non-English speaking public.

⁸ Abandoned waste sites, which have sometimes been used as sites for manufacturing plants or military installations. Development of these sites is hindered by possible environmental contamination.

⁹ Bullard 1993a, 1993b, 1993c; Austin and Schill 1991.

Geographic equity refers to location and spatial configuration of communities and their proximity to environmental hazards, noxious facilities and locally unwanted land uses (LULUs), such as landfills, incinerators, sewage treatment plants, lead smelters, refineries and other hazardous facilities. For example, unequal protection may result from land-use decisions that determine the location of residential amenities and disamenities. Communities of colour that are unincorporated and poor often suffer triple vulnerability for noxious facility siting.

Social equity assesses the role of sociological factors (including race, ethnicity, class, culture, lifestyles and political power) on environmental decision making. Poor people and people of colour often work in the most dangerous jobs and live in the most polluted neighbourhoods, and their children are exposed to environmental toxins on the playgrounds and in their homes.

The environmental justice framework rests on developing tools, strategies and policies to eliminate the myriad types of unfair, unjust and inequitable conditions and policies outlined above (Bullard 1996). Critically, the framework attempts to uncover the underlying assumptions that contribute to and produce differential exposure and unequal protection. It brings to the surface the *ethical* and *political* questions of entitlement and lack of entitlement. Some general characteristics of the environmental justice framework include the following:

- it adopts a public health model of prevention, that is, elimination of the threat before harm occurs, as the preferred strategy;
- it shifts the burden of proof to polluters/dischargers who do harm, who
 discriminate or who do not provide equal protection to people of colour,
 low-income persons and "protected" classes;
- it utilizes disparate impact and statistical weight, or an "effect" test, as opposed to "intent," to infer discrimination; and
- it redresses disproportionate impact through "targeted" action and resources. In general, this strategy targets resources where environmental and health problems are greatest (as determined by appropriate ranking schemes but not limited to quantitative risk assessment).

Thus, the environmental justice paradigm embraces a holistic approach to formulating environmental health policies and regulations, developing risk reduction strategies for multiple, cumulative and synergistic risks, ensuring public health and enhancing public participation in environmental decision making. It assists in promoting community empowerment in regard to health, ecology and related issues, in building infrastructure for achieving environmental justice and sustainable communities, in ensuring interagency cooperation and coordination and in developing innovative public/private partnerships and collaboratives. It also aids in enhancing community-based pollution prevention strategies, ensuring community-based sustainable economic development and developing geographically oriented community-wide programming.

Safeguarding the Most Vulnerable

Numerous studies reveal that low-income persons and people of colour have borne far greater health and environmental risk burdens than the society at large. A 1999 study by the Institute of Medicine of the National Academy of Sciences (IOM) in Washington, DC, concluded that government, public health officials and the medical and scientific communities need to place a higher value on the problems and concerns of vulnerable communities. The study also explicitly confirmed that people of colour and low-income communities are exposed to higher levels of pollution than the rest of the nation, and experience certain diseases in greater numbers than more affluent, white communities (IOM 1999).

 $^{^{10}}$ Mann 1991; Goldman 1992; Goldman and Fitton 1994; IOM 1999; Cooney 1999; Bullard 2000.

Elevated public health risks have been found in some populations even when social class is held constant. For example, race has been found to be independent of class in the distribution of air pollution; location of municipal landfills, incinerators and abandoned toxic waste dumps; clean-up of superfund sites; and incidence of lead poisoning in children.¹¹

Lead poisoning in children

Lead poisoning is the number one environmental health threat to children, especially poor children, children of colour and children living in inner cities (Pirkle et al. 1994; National Institute for Environmental Health Sciences 1996). Lead poisoning affects an estimated 890,000 American preschoolers, or 4.4 per cent of the under-five age group (US Department of Health and Human Services 2002). African-American children are five times more likely to suffer from lead poisoning than white children. Over 22 per cent of African-American children living in pre-1946 housing suffered from lead poisoning, compared with 5.6 per cent of white children and 13 per cent of Mexican-American children living in older homes.

In California, a coalition of environmental, social justice and civil liberties groups joined forces to challenge the way the state carried out its lead screening of poor children. The Natural Resources Defense Council (NRDC), the National Association for the Advancement of Colored People Legal Defense and Education Fund (NAACP LDF), the American Civil Liberties Union (ACLU) and the Legal Aid Society of Alameda County, California, won an out-of-court settlement worth \$15 to \$20 million for a programme to test for lead in blood. The lawsuit, *Matthews v. Coye*, involved the failure of the state of California to conduct federally mandated testing for lead for some 557,000 poor children who receive Medicaid (Bill Lann Lee 1992). This historic agreement triggered similar lawsuits and actions in several other states that had failed to adhere to lead-screening mandates.

The geography of air pollution

According to the National Argonne Laboratory researchers, 57 per cent of whites, 65 per cent of African-Americans and 80 per cent of Hispanics live in 437 counties with substandard air quality (Wernett and Nieves 1992). In the heavily populated Los Angeles air basin, the South Coast Air Quality Management District estimates that 71 per cent of African-Americans and 50 per cent of Latinos live in the areas with the most polluted air, as compared with 34 per cent of whites.

Asthma epidemics

Air pollution costs Americans \$10 billion to \$200 billion a year. The number of asthma sufferers doubled from 6.7 million in 1980 to 17.3 million in 1998 (Centers for Disease Control and Prevention 1999). Over 4.8 million asthma sufferers are children, and asthma tends to strike poor inner-city residents the hardest. For example, African-Americans and Latinos are almost three times more likely than whites to die from asthma (Centers for Disease Control and Prevention 1992). In 1995, more than 5,000 Americans died from asthma, and the hospitalization rate for African-Americans and Latinos was three to four times the rate for whites. The Centers for Disease Control and Prevention (1999) reports that asthma accounts for more than 10 million lost school days, 1.2 million emergency room visits, 15 million outpatient visits and over 500,000 hospitalizations each year. In 2000, asthma cost Americans over \$14.5 billion.

Toxic wastes and race

Discrimination and related negligence influence land use, housing patterns and infrastructure development. Nationally, three out of five African-Americans and Latino-Americans live in communities with abandoned toxic waste sites (Commission for Racial Justice 1987). Zoning ordinances, deed restrictions and other land-use mechanisms have been widely used as a NIMBY (not in my backyard) tool, operating through exclusionary practices (Bullard 2000). The

Bryant and Mohai 1992; Commission for Racial Justice 1987; Goldman and Fitton 1994; Lavelle and Coyle 1992; Agency for Toxic Substances and Disease Registry 1988; Pirkle et al. 1994; Stretesky and Hogan 1998.

ROBERT D. BULLARD

US General Accounting Office estimates that there are between 130,000 and 450,000 brownfields scattered across the urban landscape from New York to California (Twombly 1997). Most of these brownfields are located in or near low-income, working class and people of colour communities (Bullard et al. 2000).

Toxins and housing

More than 870,000 of the 1.9 million (46 per cent) housing units for the poor, mostly minorities, sit within roughly a mile of factories that reported toxic emissions to the EPA (Dallas Morning News 2000). Homeowners have been the most effective groups to use NIMBY tactics and practices to keep locally unwanted land uses out of their backyards and communities. However, race discrimination, together with other factors, prevents millions of people of colour from enjoying the advantages of home ownership (Bullard et al. 1994). Just over 46 per cent of African-Americans and Latinos owned their homes, compared with 73 per cent of whites, as of 1999. If blacks and Hispanics owned homes at the same rate as whites of similar age and income, their homeownership rates would have been 61 per cent in 1998, versus 72 per cent for whites. African-American and Latino-American households, on average, must pay an extra cost not paid by whites, an unofficial discrimination "tax" of roughly \$3,700 (Yinger 1999). The "discrimination tax" is the price that African-Americans and Latinos must pay as a result of persistent racism in housing (Oliver and Shapiro 1997).

Toxins and schools

More than 600,000 students in Massachusetts, New York, New Jersey, Michigan and California were attending nearly 1,200 public schools located within half a mile of federal Superfund¹² or state-identified contaminated sites (Center for Health, Environment and Justice 2001). Superfund sites are deemed the most serious hazardous waste disposal sites by the EPA and statelevel agencies. These sites are locations that are in severe need of cleanup due to environmental and health risks resulting from toxic wastes. No state except California has a law requiring school officials to investigate potentially contaminated property, and no federal or state agency keeps records of public or private schools that operate on or near toxic waste or industrial sites (Lazaroff 2000).13

Toxins and jobs

Farm work is the second most dangerous occupation in the United States, and farm workers suffer from the highest rate of chemical injuries of any workers in the nation. The EPA estimates that pesticide exposure causes farm workers and their families to suffer between 10,000 and 20,000 immediate illnesses annually and countless thousands of illnesses later in life (Cox 1994; US General Accounting Office 1993). Of the 25 most heavily used agricultural pesticides, five are toxic to the nervous system; 18 are skin, eye or lung irritants; 11 have been classified by the EPA as causing cancer; 17 cause genetic damage; and 10 have caused reproductive problems in tests on laboratory animals. Annual use of the pesticides causing each of these types of health problems totals between 100 million to 400 million pounds (approximately 45 million to 180 million kilograms) (Cox 1994).

It is critical to note that farms employing fewer than 10 workers are exempt from regulation by the US Occupational Safety and Health Administration (OSHA), and over 85 per cent of migrant farm workers work on farms with fewer than 10 employees. Over 80 per cent of migrant farm workers in the United States are Latino. An estimated 250,000 children of farm workers in the United States migrate each year, and 90,000 of them migrate across international borders. Half of all migrant children have worked in fields still wet with pesticides and more than onethird have been sprayed directly; yet over 72.8 per cent of migrant children are completely without health insurance (Family Circle 1991).

¹² Superfund sites are the nation's worst toxic waste sites, including over 1,300 scheduled for cleanup on the National Priorities List (NPL).

¹³ This was still the case as of mid-2004.

An estimated 137 American workers die from job-related diseases every day (NIEHS 1996). This is more than eight times the number of workers who die from job-related accidents. Fear of unemployment acts as a potent incentive for many workers to accept and remain in jobs that may result in both immediate and long-term risks to their health, and often, to that of their families.

The US Department of Labor estimates that more than half of the country's 22,000 sewing shops violate minimum wage and overtime laws. Many of these employees work in dangerous conditions that include blocked fire exits, unsanitary bathrooms and poor ventilation. Government surveys have also revealed that 75 per cent of US garment shops violate safety and health laws (Sweatshop Watch 2000).

Threatened Native Lands

Native American nations have become prime targets for waste trading (Angel 1992; Gedicks 1993). The vast majority of these waste proposals have been defeated by grassroots groups on the reservations, but there is a grave problem with what has come to be known as "radioactive colonialism" (Churchill and LaDuke 1983). Winona LaDuke sums up this "toxic invasion" of Native lands as follows:

Today their [Native] lands are subject to some of the most invasive industrial interventions imaginable. According to the Worldwatch Institute, 317 reservations in the United States are threatened by environmental hazards, ranging from toxic wastes to clearcuts.

Reservations have been targeted as sites for 16 proposed nuclear waste dumps. Over 100 proposals have been floated in recent years to dump toxic waste in Indian communities. Seventy-seven sacred sites have been disturbed or desecrated through resource extraction and development activities. The federal government is proposing to use Yucca Mountain, sacred to the Shone, [as] a dumpsite for the nation's high-level nuclear waste (LaDuke 1999: 2–3).

Radioactive colonialism operates in terms of energy production (mining of uranium) and disposal of wastes on Native American lands. Both industrial and governmental agencies have exploited the economic vulnerability of Native American nations. Of the 21 applicants for the Monitored Retrievable Storage (MRS) grants from the US Department of Energy (DOE), 16 were Indian tribes (Taliman 1992a). The 16 tribes applied for \$100,000 grants from DOE to study the prospect of "temporarily" storing nuclear waste for half a century under its MRS programme. Delegates at the Third Annual Indigenous Environmental Council Network Gathering (held in Oregon in 1992) adopted a resolution of No Nuclear Waste on Indian Lands.

In 1999, Eastern Navajo reservation residents filed suit with the Nuclear Regulatory Commission to block a permit for uranium mining in Church Rock and Crown Point, New Mexico. The Mohave tribe in California, the Skull Valley Goshutes in Idaho and the Western Shoshone in Yucca Mountain, Nevada, are currently fighting proposals to build radioactive waste dumps on their tribal lands. As of early 2004, the Mohave tribe was able to defeat the ward valley nuclear dump (Norell 2000), but the Skull Valley Goshutes (Fahys 2003) and Western Shoshone (Tetreault 2004) were not able to block the nuclear dump permits.

Military Toxins

Private industry is not alone in its ecological threats to communities of colour. Military industries are also major players in this regard. The US Department of Defense (DoD) has been storing extremely dangerous waste from nuclear weapons on Native lands and in the Pacific Islands. In fact, "over the last 45 years, there have been 1,000 atomic explosions on Western Shoshone land in

ROBERT D. BULLARD

Nevada, making the Western Shoshone the most bombed nation on earth" (LaDuke 1999:3). Marshall Islands residents also live under a constant threat of radioactive contamination.

Military activities have also spoiled much of the pristine land in Alaska. Over 648 US military installations in Alaska, both active and abandoned, are polluting the land, groundwater, wetlands, streams and air with extensive fuel spill, pesticides, solvents, PCBs, dioxins, munitions and radioactive materials. Many of these military installations are in close proximity to Native villages and traditional hunting and fishing areas, virtually threatening the quality of life and way of life of countless Alaskan Natives (Miller 2000).

Residents on the island of Vieques, Puerto Rico, have also been engaged in a heated battle against the US Navy. The tiny island is inhabited by 9,000 residents who are bordered on both sides by Navy installations. The navy has used this US commonwealth island as a bombing range since 1941, and as recently as 1999, a stray Marine Corps bomb killed a civilian security guard (Reaves and Thompson 2001). Over 600 protesters were arrested. Opponents contend that the bombing exercises threaten the environment and health of island residents, and several studies highlight health problems directly related to the noise levels of the ship-to-shore shelling of Vieques (CNN.com 2001).

In May 2003, after 56 years of using Vieques as a bombing range, the navy finally left the tiny island. However, it also left behind a legacy of broken promises, thousands of unexploded bombs, poisoned marine life and toxins that threatened the health of Viequens (Miami Herald 2003). The site has been transferred to the Department of Interior – which has promised to clean it up and convert it to a wildlife refuge. Hundreds of activists jailed for trespassing to block the bombing are preparing for their next battle-reclaiming 15,000 acres of land in eastern Vieques transferred to the Department of Interior.

Racism in Transportation

Transportation is part of the built environment. It touches nearly every aspect of our lives. Transportation is about access to basic services, including jobs, health and education. Transportation racism is about costs and benefits (Bullard et al. 2004). Transportation policies and practices have contributed to residential segmentation and unhealthy living conditions in poor, working class and people of colour communities (Bullard and Johnson 1997). African-Americans struggled for over a century to end unequal treatment on buses and trains. This form of discrimination, which clearly violates constitutionally guaranteed civil rights, was challenged by Homer Plessy more than one hundred years ago. Nevertheless, in 1896 the US Supreme Court, in Plessy v. Ferguson, upheld Louisiana's segregated "white" and "coloured" seating policies on railroad cars. This decision ushered in the infamous doctrine of "separate but equal". Plessy not only codified apartheid in transportation facilities, but also served as the legal basis for racial segregation in education until it was overturned in 1954 by the US Supreme Court decision of Brown v. Board of Education.

Rosa Parks is a household name in the civil rights movement. On 1 December 1955, she refused to give up her seat at the front of a Montgomery, Alabama, city bus to a white man. In so doing, she ignited the Montgomery Bus Boycott and ushered in the modern civil rights movement. On the other hand, few people know about Cynthia Wiggins, a black teenager from Buffalo, New York. While Rosa Parks survived transit racism, it killed 17-year-old Cynthia Wiggins. She was crushed by a dump truck while crossing a seven-lane highway because Buffalo's Number 6 bus, an innercity bus used mostly by African-Americans, was not allowed to stop at the suburban Walden Galleria Mall, which was located in an affluent white area. This policy discouraged African-Americans from shopping at the mall since many inner-city residents in Buffalo do not own cars.

The Wiggins family and other members of the African-American community sued the mall owners, bus company and trucking firm for using the highway as a racial barrier to exclude blacks. The high-profile trial, argued by O.J. Simpson's former attorney, Johnnie L. Cochran Jr., began on 8 November 1999. The lawsuit was settled 10 days later for \$2.55 million.

Disparate highway siting and environmental mitigation plans were also challenged by community residents, churches and the NAACP LDF in *Clean Air Alternative Coalition v. United States Department of Transportation* (ND Cal. C-93-0721-VRW) involving the reconstruction of the earthquake damaged Cypress Freeway in West Oakland, California. The plaintiffs wanted the downed Cypress Freeway (which split their community in half) rebuilt further away. Although the plaintiffs were not able to have their plan implemented exactly as they had hoped, they did change the course of the freeway in their out-of-court settlement (Lee 1995).

Likewise, the NAACP LDF filed an administrative complaint, *Mothers of East Los Angeles, El Sereno Neighborhood Action Committee, El Sereno Organizing Committee, et al. v. California Transportation Commission, et al.* before the US Department of Transportation (DOT) and US Agency for Housing and Urban Development (HUD), challenging the construction of the 4.5-mile extension of the Long Beach Freeway in East Los Angeles through El Sereno, Pasadena and South Pasadena. The plaintiffs argued that the state agencies proposed mitigation measures to address noise, air and visual pollution that discriminated against the mostly Latino El Sereno community. For example, the entire planned freeway in Pasadena and 80 per cent in South Pasadena would be below ground level, while most of the freeway in El Sereno would be above grade (that is, at street level, as opposed to elevated or below ground) favouring white areas in the allocation of covered freeway, historic preservation measures and accommodation to local schools.¹⁴

Los Angeles residents and the NAACP LDF have also challenged the inequitable funding and operation of bus transportation used primarily by low-income residents and people of colour. A class action lawsuit was filed on behalf of 350,000 low-income people of colour, including bus riders represented by the Labor/Community Strategy Center, the Bus Riders Union, the Southern Christian Leadership Conference, the Korean Immigrant Workers Advocates and individual bus riders. In *Labor/Community Strategy Center v. Los Angeles Metropolitan Transportation Authority* (Cal. CV 94-5936 TJH Mcx), the plaintiffs argued that the Los Angeles Metropolitan Transit Authority (LAMTA) used federal funds to pursue a policy of raising costs for bus riders (who are mostly poor and people of colour) and reducing quality of service in order to fund rail and other projects in predominately white, suburban areas (Mann 1996).

In the end, the Labor Community Strategy Center and its allies successfully challenged transit racism in Los Angeles. The group was able to win major fare and bus pass concessions from the LAMTA. They also forced the LAMTA to spend \$89 million on 278 new, clean compressed natural gas buses.

Examples of Landmark Environmental Racism Cases in the United States

Citizens Against Toxic Exposure versus the EPA

There are dozens of black and brown "Love Canals" (communities built on top of contaminated waste sites) spread across the American urban landscape. Margaret Williams, a 73-year-old retired Florida school teacher, led a five-year campaign to have her community relocated away from the environmental and health hazards posed by the nation's third largest Superfund site. The EPA designated the National Priorities List (NPL) of Superfund sites as posing an eminent threat to human health (EPA 1996).

 $^{^{14}\,\,}$ Lee 1995; Bullard and Johnson 1997; Bullard et al. 2004.

The Escambia Wood Treating site was dubbed "Mount Dioxin" because of the 60-foot high mound of contaminated soil dug up from the neighbourhood. The L-shaped mound holds 255,000 cubic yards of soil contaminated with dioxins, one of the most dangerous compounds ever developed (Bullard 1999). Williams led Citizens Against Toxic Exposure (CATE), a neighbourhood organization formed to promote relocation, into battle with EPA officials who first proposed to move only the 66 households most affected by the site. After prodding from CATE, EPA added 35 more households, at a total cost of \$7.54 million.

The original government plan called for some 257 households, including an apartment complex, to be excluded from the relocation plan. CATE refused to accept any relocation plan unless all residents were included, believing that partial relocation was tantamount to partial justice. CATE took its campaign on the road to EPA's National Environmental Justice Advisory Council (NEJAC). This group was successful in persuading its Waste Subcommittee to hold a Superfund Relocation Roundtable in Pensacola, Florida. At this meeting, CATE's total neighbourhood relocation plan won the backing of more than 100 grassroots organizations. EPA nominated the Escambia Wood Treating Superfund site as the country's first pilot programme to help the federal agency develop a nationally consistent relocation policy that would consider not only toxic levels, but welfare issues such as property values, quality of life, health and safety.

In October 1996, EPA officials agreed to move all 358 households from the site at an estimated cost of \$18 million. EPA officials considered the mass relocation as "cost efficient" after city planners decided to redevelop the area for light industry rather than clean the site pursuant to residential standards (Escobedo 1996). This decision marked the first time that an African-American community had been relocated under the EPA's Superfund Program and was hailed as a landmark victory for environmental justice.

Citizens Against Nuclear Trash Coalition versus the Louisiana Energy Services

In 1989, Louisiana Energy Services (LES), a British, German and American conglomerate, applied for a government permit to build a privately owned uranium enrichment plant in the United States. A national search was undertaken by LES to find the "best" site for a plant that would produce 17 per cent of the nation's enriched uranium. LES ostensibly used an objective scientific method in designing its site selection process.

The southern United States, specifically Louisiana, and more specifically Claiborne Parish, ended up being the dubious "winners" of the site selection process. Residents from Homer and the nearby communities of Forest Grove and Center Springs-two communities closest to the proposed site-disagreed with the site selection process and outcome. They organized themselves into a group called Citizens Against Nuclear Trash (CANT). CANT charged LES and the federal Nuclear Regulatory Commission (NRC) staff with practicing environmental racism, hired the Sierra Club Legal Defense Fund (which later changed its name to Earthjustice Legal Defense Fund) and sued LES.

The lawsuit dragged on for more than eight years. On 1 May 1997, a three-judge panel of the Nuclear Regulatory Commission Atomic Safety and Licensing Board issued a final initial decision on the case. The judges ruled that "racial bias played a role in the selection process" (NRC 1997). A story in the Sunday Times (1997) proclaimed the environmental justice victory by declaring "Louisiana blacks win nuclear war". The precedent-setting federal court ruling came two years after the adoption of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed into law by President William J. Clinton on 11 February 1994. This executive order reinforces what had been law for three decades. Indeed, the Civil Rights Act of 1964 prohibits discriminatory practices in any programmes receiving federal funds.

Environmental requirements also reinforce a number of regulatory laws and statutes, including Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act of 1969 and the Federal-Aid Highway Act of 1970. Title VI of the Civil Rights Act states, "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance".¹⁵

The 1994 executive order also focuses on the National Environmental Policy Act (NEPA), a law that established policy goals for the protection, maintenance and enhancement of the environment. NEPA's goal is to ensure for all Americans a safe, healthful, productive, and aesthetically and culturally pleasing environment. NEPA requires federal agencies to prepare a detailed statement on the environmental effects of proposed federal actions that significantly affect the quality of human health.

The executive order calls for improved methodologies for assessing and mitigating health effects from multiple and cumulative exposure. It also provides for collection of data on low-income and minority populations that may be disproportionately at risk. The order further calls for environmental health impact studies on people who subsist on fish and wildlife, and it encourages affected populations to participate in the various phases of assessment and mitigation.

The judges, in a 38-page written decision, also chastised the NRC staff for not addressing the provisions called for under Executive Order 12898. The court decision was upheld on appeal on 4 April 1998.

Table 1: African-American population by location in 1990, during the siting of a privately-owned uranium enrichment plant

Location	African-American population (per cent)
United States	13
Southern states	20
State of Louisiana	31
Louisiana's northern parishes	35
Claiborne parish	46

Source: US Bureau of the Census, Public Law 94-171 (www.census.gov).

A clear racial pattern emerged during the alleged national search for sites and the multistage screening and selection process (Bullard 1995). Table 1 illustrates the narrowing of the site selection process to areas of increasingly high poverty and African-American representation; such a trend was also evident from an evaluation of the actual sites that were considered in the "intermediate" and "fine" screening stages of the site selection process.

The aggregate average percentage of black population for the one-mile radius around all of the 78 sites examined (in 16 parishes) was 28.42 per cent. When LES completed its initial site cuts, and reduced the list to 37 sites within nine parishes, the aggregate percentage of black population rose to 36.78 per cent. When LES then further limited its focus to six sites in Claiborne Parish, the aggregate average percentage black population rose again, to 64.83 per cent. *The final site selected, the "LeSage" site, had a 97.10 per cent black population within a one-mile radius* (Bullard 1995).

¹⁵ See Title VI of the Civil Rights Act of 1964, 42 USC [United States Code], section 2000d et seq.

Table 2: Population by race living within one-mile radius of LES candidate sites during siting process

Candidates sites	Total population	Black population	Per cent black
Initial 78 sites	18,722	5,321	28.42
Intermediate 37 sites	8,380	3,082	36.78
Fine screening 6 sites	1,160	752	64.83
Final selection 1 site	138	134	97.10

Source: US Bureau of the Census, Public Law 94–171 (www.census.gov).

The plant was proposed between two African-American communities, and the proposed site was in a Louisiana parish with per capita earnings of only \$5,800 per year, compared with a national average of almost \$12,800, and where over 58 per cent of the African-American population lives below the poverty line. The two surrounding African-American communities were treated as though they were virtually "invisible"; they were not even mentioned in the Nuclear Regulatory Commission draft environmental impact statement (NRC 1997) detailing the impacts of the project.

Only after intense public comments did the NRC staff attempt to address environmental justice and disproportionate impact implications, as required under NEPA, and called for under Environmental Justice Executive Order 12898. For example, NEPA required that the government consider the environmental impacts and weigh the costs and benefits of the proposed action. These include health and environmental effects, and the risk of accidental but foreseeable adverse health and environmental effects, as well as socioeconomic impacts.

The NRC staff devoted less than a page to addressing environmental justice concerns of the proposed uranium enrichment plant in its Final Environmental Impact Statement (FEIS). Overall, the FEIS and Environmental Report (ER) were inadequate in the following respects:

- they inaccurately assessed the costs and benefits of the proposed plant;
- they failed to consider the inequitable distribution of costs and benefits of the proposed plant to white and African-American populations; and
- they failed to consider the fact that the siting of the plant in a community of colour follows a national pattern in which institutionally biased decision making leads to the siting of hazardous facilities predominately in such communities and results in the inequitable distribution of costs and benefits to those communities (Bullard 1995).

The distributive costs that were not analyzed in relationship to this project included the disproportionate burden of health and safety problems, property devaluation, fires and accidents, noise, traffic, radioactive dust in the air and water, and dislocation by a road closure connecting the two communities. Overall, the CANT legal victory points to the utility of combining environmental and civil rights laws and the requirement of governmental agencies to consider Executive Order 12898 in their assessments.

In addition to the remarkable victory over LES, a company that had the backing of powerful US and European nuclear energy companies, CANT members and their allies won much more. They embarked upon a path of political empowerment and self-determination. During the long battle, CANT member Roy Madris was elected to the Claiborne Parish Jury (the county commission), and CANT member Almeter Willis was elected to the Claiborne Parish School Board. The nearby town of Homer elected its first African-American mayor, and the Homer town council now has two African-American members. In the fall of 1998, LES sold the land on which

the proposed uranium enrichment plant would have been located. The land is going back into timber production, as it was before LES bought it.

St. James Citizens versus Shintech

In 1996 battle lines were drawn in Louisiana in another national environmental racism test case. The Japanese-owned Shintech applied for a Title V air permit to build an \$800 million polyvinyl chloride (PVC) plant in Convent, Louisiana, a community that is over 70 per cent African-American, with over 40 per cent of Convent residents falling below the poverty line. The community was already home to a dozen polluting plants and a 60 per cent unemployment rate. The industrial plants were so close to residents' homes that if they had been offered jobs they could have walked to work. However, while industries are invited into black communities because they promise jobs, in reality, often there are no jobs available for local residents, as was the case here (Bullard 2000).

The Shintech case raised environmental racism concerns similar to those found in the failed LES siting proposal. The EPA is bound by Executive Order 12898 to ensure that "no segment of the population, regardless of race, colour, national origin or income, as a result of EPA's policies, programs, and activities, suffer disproportionately from adverse health or environmental effects, and all people live in clean and sustainable communities". The Louisiana Department of Environmental Quality is also bound by federal laws to administer and implement its programmes, mandates and policies in a non-discriminatory way.

Any environmental justice analysis of the Shintech proposal would need to examine the issues of disproportionate and adverse impact on low-income and minority populations near the proposed PVC plant. Clearly, African-Americans and low-income residents in Convent live closest to existing and proposed industrial plants and would be disproportionately impacted by the resulting industrial pollution (Wright 1998). African-Americans comprise 34 per cent of the state's total population. The Shintech plant was planned in St. James Parish, which already ranks third in the state for toxic releases and transfers. Over 83 per cent of St. James Parish's 4,526 residents are African-American. Over 17.7 million pounds of releases were reported in the 1996 Toxic Release Inventory (TRI). The Shintech plant would add over 600,000 pounds of air pollutants annually. Thus, permitting the Shintech plant to be placed in Convent would add significantly to the toxic burden borne by these mostly low-income, African-American residents.

After six months of intense organizing and legal manoeuvring, residents of Convent and their allies convinced EPA Administrator Carol Browner to withhold the permit. A feature article in *USA Today* read: "EPA puts plant on hold in racism case" (Hoversten 1997). A year later, the Environmental Justice Coalition forced Shintech to scrap its plans to build the PVC plant there. The decision was announced in September 1998 and was hailed around the country as a major victory against environmental racism. The driving force behind this victory was the relentless pressure and laser-like focus of the Convent community.

South Camden Residents versus the St. Lawrence Cement Company

In April 2000, a handful of residents from Camden, New Jersey, won a major environmental justice court victory. In a precedent-setting decision, Federal District Judge Stephen Orlofsky blocked the opening of the \$60 million Montreal-based St. Lawrence Cement Company plant in the South Camden Waterfront neighbourhood. The ruling resulted from a February lawsuit filed by Camden Regional Legal Service on behalf of 10 members of South Camden Citizens in Action. The decision was based on the failure of the New Jersey Department of Environmental Protection to make a meaningful investigation of the civil rights consequences of such an operation in a minority, low-income area, which already suffers from severe health problems due to pollution and odour-releasing facilities (Schurr 2001).

The South Camden case and other Title VI cases were severely damaged by the 24 April 2001 US Supreme Court ruling in *Alexander v. Sandoval*, which restricted the scope of Title VI litiga-

tion to include only intentional discrimination, which carries a high burden of proof. Title VI prohibits discrimination by entities receiving federal funds. The Court had previously read the statute to allow individuals to sue for damages for unintentional discrimination. The Justice Department's regulations went further, providing that individuals could sue for damages if the challenged practice had a discriminatory *effect*.

After the Sandoval decision, the Third Circuit Court of Appeals dealt civil rights protections another blow in *South Camden Citizens in Action v. New Jersey Department of Environmental Protection*, through ruling that 42 USC [United States Code] Section 1983, the last remaining legal avenue for environmental justice advocates to address discriminatory impact cases, could not be used to invoke the protections guaranteed under Title VI. The Court held that individuals who believe that they have been discriminated against because of a facially neutral policy (that is, a rule having a "disparate impact") may not bring a private suit under Title VI of the Civil Rights Act of 1964.

In December 2001, the Third Circuit decided in *South Camden Citizens in Action v. New Jersey Department of Environmental Protection* that plaintiffs could not maintain their action under 42 USC Section 1983 for disparate impact discrimination (Hajna 2001). The Third Circuit held that "an administrative regulation cannot create an interest enforceable under section 1983 unless the interest already is implicit in the statute authorizing the regulation, and that inasmuch as Title VI proscribes only intentional discrimination, the plaintiffs do not have a right enforceable through a 1983 action". The Third Circuit Court of Appeals voted nine to three against rehearing the case before the full 12-judge panel.

The waterfront neighbourhood involved in these actions is home to 2,100 residents, of which over 91 per cent are people of colour. The cement plant would have added roughly 60 tons of dust into the air each year in one of the nation's poorest neighbourhoods. The plant would also have added about 77,000 truck deliveries, translating into more diesel fumes and ground level ozone. All of this was proposed for a neighbourhood where a 1997 health study found that 61 per cent of the residents already have respiratory problems (Lazaroff 2001).

The South Camden waterfront neighbourhood is saturated with polluting industries, including the Camden County trash-to-steam incinerator, a regional sewage treatment plant, two federal Superfund sites and more than a dozen toxic waste sites. One of the Superfund sites is contaminated with radioactive thorium. In terms of benefits from the proposed plant, it would have employed about 15 people, including six from Camden.

Corporate Economics and Ecological Destruction

The southern United States has become a "sacrifice zone" for the rest of the nation's toxic waste (Schueler 1992). A colonial mentality exists in the South, where local governments and big business take advantage of people who are both politically and economically powerless. The region is trapped in a unique legacy—the legacy of slavery, Jim Crow politics (that is, entrenched racism) and white resistance to equal justice. This legacy has also affected race relations and the region's ecology.

The southern United States is characterized by "look-the-other-way environmental policies" and "giveaway tax breaks", and is a place where "political bosses encourage outsiders to buy the region's human and natural resources at bargain prices" (Schueler 1992:46–47). Lax enforcement of environmental regulations has left the region's air, water and land the most industry-befouled in the United States.

Ascension Parish typifies the toxic "sacrifice zone" model. In the two parish towns of Geismer and St. Gabriel, 18 petrochemical plants are crammed into an area of nine and a half square miles. In Geismar, Borden Chemicals has released chemicals into the environment that have been found to

be health hazards to the local residents. These chemicals include: ethylene dichloride, vinyl-chloride monomer, hydrogen chloride and hydrochloric acid (Barlett and Steele 1998:72).

Borden Chemicals has a long track record of contaminating the air, land and water in Geismar. In March 1997, the company paid a fine of \$3.5 million—the single largest in Louisiana history. The company has been accused of storing hazardous waste, sludges and solid wastes illegally; failing to install containment systems; burning hazardous waste without a permit; neglecting to report the release of hazardous chemicals into the air; contaminating groundwater beneath the plant site (thereby threatening an aquifer that provides drinking water for residents of Louisiana and Texas); and shipping toxic waste laced with mercury to South Africa without notifying the EPA, as required by law (Barlett and Steele 1998).

Louisiana could actually improve its general welfare by enacting and enforcing regulations to protect the environment (Templet 1995). A growing body of evidence shows that environmental regulations do not reduce jobs. On the contrary, the data indicate that "states with lower pollution levels and better environmental policies generally have more jobs, better socioeconomic conditions and are more attractive to new businesses" (Templet 1995:37). Nevertheless, some states persist in subsidizing polluting industries in return for very few jobs (Barlett and Steele 1998).

Corporations routinely pollute Louisiana's air, ground and drinking water while being subsidized by tax breaks from the state, and the state is a leader in doling out "corporate welfare" to polluters (see table 3). In the 1990s, the state wiped \$3.1 billion in property taxes off the books for polluting companies and the state's five worst polluters have received \$111 million dollars over the past decade (Barlett and Steele 1998). A breakdown of the chemical releases and tax breaks include:

- Cytec Industries 24.1 million pounds (approximately 10.8 million kilograms)/\$19 million;
- IMC-Agrico 12.8 million pounds (approximately 5.8 million kilograms)/\$15 million;
- Rubicon 8.4 million pounds of releases (approximately 3.8 million kilograms)/\$20 million;
- Monsanto 7.7 million pounds (approximately 3.5 million kilograms)/\$45 million; and
- Angus Chemical 6.3 million pounds (approximately 2.8 million kilograms)/\$12 million.

Nearly three-fourths of Louisiana's population—more than three million people—get their drinking water from underground aquifers, dozens of which have been threatened by contamination from polluting industries (O'Byrne and Schleifstein 1991). The Lower Mississippi River Industrial Corridor is the site of over 125 companies that manufacture a range of products including fertilizers, gasoline, paints and plastics, which is why environmentalists and local residents have dubbed the corridor "Cancer Alley".¹⁶

¹⁶ Beasley 1990b; Bullard 2000; Motavalli 1998.

Table 3: Corporate welfare in Louisiana

The biggest recipients: Companies ranked by total industrial-property tax (state) abatements, 1988-1997

Company	Jobs created	Total taxes abated (US dollars)
1. Exxon	305	213,000,000
2. Shell Chemical/Refining	167	140,000,000
3. International Paper	172	103,000,000
4. Dow Chemical	9	96,000,000
5. Union Carbide	140	53,000,000
6. Boise Cascade	74	53,000,000
7. Georgia Pacific	200	46,000,000
8. Willamette Industries	384	45,000,000
9. Procter & Gamble	14	44,000,000
10. Westlake Petrochemical	150	43,000,000

The costliest jobs: Companies ranked by net cost of each new job (abatements divided by jobs created)

Co	mpany	Jobs created	Cost per job (US dollars)
1.	Mobil Oil	1	29,100,000
2.	Dow Chemical	9	10,700,000
3.	Olin	5	6,300,000
4.	BP Exploration	8	4,000,000
5.	Procter & Gamble	14	3,100,000
6.	Murphy Oil USA	10	1,600,000
7.	Star Enterprise	9	1,500,000
8.	Cytec	13	1,500,000
9.	Montell USA	31	1,200,000
10.	Uniroyal Chemical	22	900,000

Source: Bartlett and Steele 1998.

Environmental Economics

Some polluting industries have been eager to exploit this vulnerability. Some have even used the assistance of elected officials in obtaining special tax breaks and government operating permits. Clearly, economic development and environmental policies flow from forces of production and are often dominated and subsidized by state actors. Numerous examples abound whereby state actors have targeted cities and regions for infrastructure improvements and amenities such as water irrigation systems, ship channels, road and bridge projects, and mass transit systems. On the other hand, state actors have done a poor job of protecting central city residents from the ravages of industrial pollution and non-residential activities that have clearly negative impacts on quality of life.¹⁷

Racial and ethnic inequality is perpetuated and reinforced by local governments in conjunction with urban-based corporations. Race continues to be a potent variable in explaining urban land use, street and highway configuration, commercial and industrial development, and industrial facility siting. Moreover, the question of "who gets what, where and why" often pits one community against another (Pinderhughes 1997).

¹⁷ Bryant and Mohai 1992; Bryant 1995; Cole and Foster 2001.

Workers of colour are especially vulnerable to "job blackmail" (see Kazis and Grossman 1990) because of the threat of unemployment and their concentration in low-paying, unskilled non-union occupations. For example, a large share of the non-union contract workers in oil, chemical and atomic fields are persons of colour. Over 95 per cent of migrant farm workers in the United States are Latino, African-American, Afro-Caribbean and Asian. Workers of colour are overrepresented in high-risk blue collar and service occupations where there is a more than adequate supply of replacement labour. Moreover, many labour unions have moderated their demands for improved work safety conditions in a depressed economy for fear of layoffs, plant closings and relocation of industries (for example, moving to right-to-work states, which have proliferated in the southern United States). The "right to work" laws ban workers who, by a majority vote, have decided to form a union in their workplace, and employers from negotiating union security clauses. Unions are bound by the law to represent all workers—members and non-members—in contract negotiations and other workplace issues.

Discriminatory Land Use

Some residential areas and their inhabitants are at a greater risk than the larger society from unregulated growth, ineffective regulation of industrial toxins and public policy decisions authorizing industrial facilities that favour those with political and economic clout (Takvorian 1993). Historically, exclusionary zoning (and rezoning) has been a subtle form of using government authority and power to foster and perpetuate discriminatory practices—including inequitable environmental planning.

Zoning is probably the most widely applied mechanism to regulate urban land use in the United States. Zoning laws broadly define land for residential, commercial or industrial uses, and may impose narrower land-use restrictions (for example, minimum and maximum lot size, number of dwellings per acre, square feet and height of buildings, among others). Exclusionary zoning has often been used to zone *against* rather than *for* a type of land use or development activity. On the other hand, "expulsive" zoning has pushed out residential usage and allowed "dirty" industries to invade communities (Bullard 2000). Largely the poor, people of colour and renters inhabit the most vulnerable communities. With or without zoning, deed restrictions or other devices, various groups are unequally able to protect their environmental interests. More often than not, people of colour communities are short-changed in the game of chance of neighbourhood protection.

Zoning ordinances, deed restrictions and other land-use mechanisms have been widely used as a NIMBY tool, operating through exclusionary practices. In Houston, Texas—the only major American city that does not have zoning—NIMBY was replaced with the policy of PIBBY (place in blacks' backyards). The city government and private industry have targeted landfills, incinerators and garbage dumps for Houston's black neighbourhoods for more than five decades (Bullard 1983, 1987). These practices have lowered residents' property values, accelerated physical deterioration and increased disinvestment. Moreover, the discriminatory siting of landfills and incinerators stigmatized Houston neighbourhoods as dumping grounds for a host of other unwanted facilities, including salvage yards, recycling operations and automobile "chop shops".

It is difficult for Americans in segregated neighbourhoods to say "not in my backyard" when they do not have one. This is the reason why homeowners are the strongest advocates of the NIMBY positions taken against locally unwanted land uses, such as the construction of garbage dumps, landfills, incinerators, sewage treatment plants, recycling centres, prisons, drug treatment units and public housing projects (Bullard 1996, 1993c).

The ability of an individual to escape a health-threatening physical environment is often related to affluence, but racial and ethnic barriers further complicate this process. The imbalance between residential amenities and land uses assigned to central cities and suburbs cannot be

explained by class factors alone. Whites and people of colour do not have the same opportunities to "vote with their feet" and escape undesirable physical environments.

Conclusion

The environmental justice movement emerged in response to environmental inequities, threats to public health, unequal protection, differential enforcement and disparate treatment received by the poor and people of colour. The need for environmental and economic justice does not stop at the US border, but extends to nations and communities worldwide that are increasingly at risk from hazardous wastes, toxic products and environmentally unsound technology.

Hazardous wastes and "dirty" industries have followed the "path of least resistance". Industries and governments (including the military) have often exploited the economic vulnerability of poor communities, poor states, poor nations and poor regions for "risky" operations. Whether at home or abroad, toxic colonialism, environmental racism and the international toxics trade must be challenged. No community or nation should be allowed to become the dumping ground for other peoples' hazardous wastes. Thus, any search for sustainable development must address the root causes of poverty and pollution and seek solutions to eliminate institutional racism.

Redefining environmental protection as a human right. The environmental justice movement has redefined environmental protection as a basic right. It has also emphasized pollution prevention, waste minimization and cleaner production techniques as strategies to achieve environmental justice for all Americans without regard to race, colour, national origin or income. Many countries have environmental and civil rights laws to protect the health and welfare of its citizens, including racial and ethnic groups. However, all communities have not received equal benefits from their application, implementation and enforcement.

Taking a holistic approach to environmental protection. The environmental justice movement has set out clear goals including: eliminating unequal enforcement of environmental, civil rights and public health laws; eliminating differential exposure of some populations to harmful chemicals, pesticides and other toxins in the home, school, neighbourhood and workplace; preventing the use of erroneous assumptions in calculating, assessing and managing risks; opposing discriminatory zoning and land-use practices and eliminating exclusionary practices that prevent some groups and individuals from participating in decision making. Many of these problems could be resolved if existing environmental, health, housing and civil rights laws were vigorously enforced in a non-discriminatory way.

Passing legislation and developing regulations. Unequal political power arrangements have allowed corporate toxins to be offered as short-term economic remedies for poverty. Laws and regulations are only as good as their enforcement. A legislative approach has been taken where environmental, health and worker safety laws and regulations were weak or non-existent. More stringent laws are needed, and existing laws and regulations need to be vigorously enforced without regard to race, colour, national origin or income status.

Combating economic blackmail. There is little or no correlation between proximity of industrial plants in communities of colour and employment opportunities of nearby residents. Having industrial facilities in one's community does not automatically translate into jobs for nearby residents. Many industrial plants are located within walking distance of the communities. More often than not, communities of colour are stuck with the pollution and poverty, while other people commute in for the industrial jobs.

Plugging corporate welfare loopholes. State-sponsored initiatives that cause pollution, coupled with lax enforcement, have allowed many communities of colour and poor communities to become virtual dumping grounds for unwanted and hazardous wastes. Industries and governments (including the military) have often exploited the economic vulnerability of poor communities,

states, nations and regions for ecologically unsound and risky operations. Environmental justice leaders are demanding that no community or nation, rich or poor, urban or suburban, black or white, should be allowed to become a "sacrifice zone". They are also pressing governments to live up to mandates and international agreements for protecting public health and the environment.

Much of the world (and much of the United States) does not share in the *benefits* of the generally high US standard of living. From energy consumption to the production and export of tobacco, pesticides and other chemicals, more and more of the world's peoples are sharing the health and environmental *burden* of America's wasteful throw-away culture. Producers of hazardous wastes and dirty industries have followed the path of least resistance, offering poor people and poor nations a "choice" of no jobs and no development, or development with risky low-paying jobs and pollution.

Building a global environmental justice movement. The environmental justice movement has begun to build a global network of grassroots groups, community-based organizations, university-based resource centres, researchers, scientists, educators and youth groups. Better communication and funding is needed in every area. Resources are especially scarce for environmental justice and anti-racism groups in developing countries. The Internet has proven to be a powerful tool for those groups that have access to the World Wide Web. Erasing the "digital divide" has become a major strategy to combat environmental racism.

Focusing attention on the civil and human rights aspects of ecological and environmental degradation will also contribute to the realization that what is needed is an overarching, systemic, long-term problem-solving methodology for coming to terms with how we manage our needs, our wastes and our relationship with the earth.

Appendix: Principles of Environmental Justice

The First National People of Color Environmental Leadership Summit

24-27 October 1991 Washington, DC

Preamble

We, The People of Color, gathered together at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth, respect and celebrate each of our cultures, languages and beliefs about our natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these principles of Environmental Justice:

- Environmental justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.
- Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
- Environmental justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.
- Environmental justice calls for universal protection from nuclear testing and the extraction, production and disposal of toxic/hazardous wastes and poisons that threaten the fundamental right to clean air, land, water, and food.
- Environmental justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.
- Environmental justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.
- Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.
- Environmental justice affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right to those who work at home to be free from environmental hazards.
- Environmental justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.
- 10. Environmental justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration of Human Rights, and the United Nations Convention of Genocide.

- 11. Environmental justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
- 12. Environmental justice affirms the need for an urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all the full range of resources.
- 13. Environmental justice calls for the enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.
- 14. Environmental justice opposes the destructive operations of multi-national corporations.
- 15. Environmental justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.
- 16. Environmental justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.
- 17. Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to insure the health of the natural world for present and future generations.

Adopted 27 October 1991

Bibliography

- Agency for Toxic Substances and Disease Registry. 1988. *The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress.* US Department of Health and Human Services, Atlanta, GA.
- Agyeman, Julian, Robert D. Bullard and Bob Evans. 2003. *Just Sustainabilities: Development in an Unequal World*. Earthscan and MIT Press, Cambridge, MA.
- Alston, Dana. 1992. "Transforming a movement: People of color unite at summit against environmental racism." *Sojourner*, Vol. 21, No. 1, pp. 30–31.
- Angel, Bradley. 1992. The Toxic Threat to Indian Lands: A Greenpeace Report. Greenpeace, San Francisco.
- Armstrong, Rick. 2003. *Detoxification Nearly Complete for Warren County PCB Landfill*. WRAL-TV, WRAL.com, 14 August. www.wral.com/news/2405266/detail.html, accessed on 1 December 2003.
- Austin, Regina and Michael Schill. 1991. "Black, brown, poor, and poisoned: Minority grassroots environmentalism and the quest for eco-justice." *The Kansas Journal of Law and Public Policy*, Vol. 1, pp. 69–82.
- Banks, Gabrielle. 2002. *Colombian Tribe Topples Mighty Oil Giant*. AlterNet.org, 6 May. www.alternet.org/story.html?StoryID=13056, accessed on 1 December 2003.
- Bartlett, D.L. and J.B. Steele. 1998. "Paying a price for polluters." Time, 23 November, pp. 72-80.
- Beasley, Conger. 1990a. "Of pollution and poverty: Deadly threat on native lands." *Buzzworm*, Vol. 2, No. 5, pp. 39–45.
- . 1990b. "Of pollution and poverty: Keeping watch in Cancer Alley." Buzzworm, Vol. 2, No. 4, pp. 39–45.
- Bryant, Bunyan. 1995. *Environmental Justice: Issues, Policies, and Solutions*. Island Press, Washington, DC.
- Bryant, Bunyan and Paul Mohai. 1992. *Race and the Incidence of Environmental Hazards*. Westview Press, Boulder, CO.
- Bullard, Robert D. 2001. "It's not just pollution." Our Planet, Vol. 12, No. 2, pp. 22-24.
- ——. 2000. Dumping in Dixie: Race, Class and Environmental Quality (third edition). Westview Press, Boulder, CO.
- ——. 1999. "Dismantling environmental racism in the USA." Local Environment, Vol. 4, No. 1, pp. 5–19.
- 1996. Unequal Protection: Environmental Justice and Communities of Color. Sierra Club Books, San Francisco.
- -----. 1995. Prefiled Written Testimony at the CANT vs. LES Hearing. Shreveport, LA.
- 1993a. Confronting Environmental Racism: Voices from the Grassroots. South End Press, Boston, MA.
- ——. 1993b. "Race and environmental justice in the United States." *Yale Journal of International Law*, Vol. 18, No. 1, pp. 319–335.
- ——. 1993c. "Environmental racism and land use." *Land Use Forum: A Journal of Law, Policy and Practice*, Vol. 2, No. 1, pp. 6–11.
- ——. 1990. "Ecological inequities and the New South: Black communities under siege." *Journal of Ethnic Studies*, Vol. 17, No. 4, Winter, pp. 101–115.
- 1987. Invisible Houston: The Black Experience in Boom and Bust. Texas A&M University Press, College Station, TX.
- ——. 1983. "Solid waste sites and the black Houston community." *Sociological Inquiry*, Vol. 53, Spring, pp. 273–288.
- Bullard, Robert D., J. Eugene Grigsby and Charles Lee. 1994. *Residential Apartheid: The American Legacy.* Center for African-American Studies Publications, University of California at Los Angeles (UCLA), Los Angeles.
- Bullard, Robert D. and G.S. Johnson. 1997. *Just Transportation: Dismantling Race and Class Barriers*. New Society Publishers, Gabriola Island, BC.
- Bullard, Robert D., G.S. Johnson and A.O. Torres. 2004. *Highway Robbery: Transportation Robbery and New Routes to Equity*. South End Press, Boston, MA.
- -----. 2000. Sprawl City: Race, Politics and Planning in Atlanta. Island Press, Washington, DC.
- Carmichael, Stokeley and Charles V. Hamilton. 1967. Black Power. Vintage, New York.

- Center for Health, Environment and Justice. 2001. *Poisoned Schools: Invisible Threats, Visible Actions*. Child Proofing Our Communities Campaign, Center for Health, Environment and Justice, Falls Church, VA.
- Center for Investigative Reporting and Bill Moyers. 1990. *Global Dumping Grounds: The International Traffic in Hazardous Waste*. Seven Locks Press, Washington, DC.
- Centers for Disease Control and Prevention. 1999. *Asthma At-A-Glance 1999*. National Center for Environmental Health. www.cdc.gov/nceh/asthma_old/ataglance/default.htm, accessed on 1 December 2003.
- 1992. "Asthma: United States, 1980–1990." Morbidity and Mortality Weekly Report, Vol. 31, No. 39, pp. 733–735.
- Chavis, Benjamin F. 1993. "Foreword." In R. D. Bullard, *Confronting Environmental Racism: Voices from the Grassroots*. South End Press, Boston, MA.
- Churchill, Ward and Winona LaDuke. 1983. "Native America: The political economy of radioactive colonialism." *Insurgent Sociologist*, Vol. 13, No. 1, pp. 51–63.
- CNN.com. 2001. Second Day of Protest Greets Vieques Exercise. CNN.com, 28 April. www.cnn.com/ 2001/US/04/28/vieques.protests/28 April, accessed on 1 December 2003.
- Cole, Luke and Sheila R. Foster. 2001. From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement. New York University Press, New York.
- Collin, Robert W. 1992. "Environmental equity: A law and planning approach to environmental racism." Virginia Environmental Law Journal, Vol. 13, No. 4, pp. 495–546.
- Collin, Robert W. and Robin Morris Collin. 1998. "The role of communities in environmental decisions: Communities speaking for themselves." *Journal of Environmental Law and Litigation*, Vol. 13, pp. 37–89.
- Colquette, K.C. and Elizabeth A. Henry Robertson. 1991. "Environmental racism: The causes, consequences, and commendations." *Tulane Environmental Law Journal*, Vol. 5, No. 1, pp. 153–207.
- Commission for Racial Justice. 1987. *Toxic Wastes and Race in the United States*. United Church of Christ, New York.
- Cooney, C.M. 1999. "Still searching for environmental justice." *Environmental Science and Technology*, Vol. 33, May, pp. 200–205.
- Council on Environmental Quality (CEQ). 1997. *Environmental Justice: Guidance Under the National Environmental Policy Act*. CEQ, Washington, DC.
- Cox, Caroline. 1994. "Working with poisons on the farm." *Journal of Pesticide Reform*, Vol. 14, No. 3, Fall, pp. 2–5.
- Dallas Morning News. 2000. Study: Public housing is too often located near toxic sites. 3 October.
- Doob, Christopher Bates. 1993. Racism: An American Cauldron. Harper Collins, New York.
- Durning, Alan B. 1990. *Apartheid's Environmental Toll: Worldwatch Paper 95.* Worldwatch Institute, Washington, DC.
- EPA. See US Environmental Protection Agency.
- Escobedo, Duwayne. 1996. "EPA gives in, will move all at toxic site." *Pensacola News Journal*, 4 October, p. A1.
- Fahys, Judy. 2003. "Ruling favors nuclear dump." *The Salt Lake Tribune*, 28 May. www.sltrib.com/ 2003/May/05282003/utah/60843.asp, accessed on 1 December 2003.
- Family Circle. 1991. *The Hidden Cost of Child Labor*. 12 March. www.stopchildlabor.org/ Consumercampaigns/fields.htm, accessed on 1 December 2003.
- Feagin, Joe R. 1994. "A house is not a home: White racism and U.S. housing practices." In Robert D. Bullard, J. Eugene Grigsby and Charles Lee (eds.).
- Feagin, Joe R. and Clarece B. Feagin. 1986. *Discrimination American Style: Institutional Racism and Sexism*. Robert E. Krieger, Malabar, FL.
- Gedicks, Al. 2001. *Resource Rebels: Native Challenges to Mining and Oil Corporations*. South End Press, Boston, MA.
- 1993. The New Resource Wars: Native and Environmental Struggles Against Multinational Corporations. South End Press, Boston, MA.
- Godsil, Rachel D. 1990. "Remedying environmental racism." Michigan Law Review, Vol. 90, No. 394, pp. 394–427.

- Goldman, Benjamin. 1992. *The Truth about Where You Live: An Atlas for Action on Toxins and Mortality.* Random House, New York.
- Goldman, Benjamin and Laura J. Fitton. 1994. *Toxic Wastes and Race Revisited*. Center for Policy Alternatives, National Association for the Advancement of Colored People (NAACP), United Church of Christ, Washington, DC.
- Hajna, Lawrence. 2001. "Challenge to Camden Cement Plan is rejected." *Courier-Post*, 18 December. www.southjerseynews.com/issues/december/m121801d.htm, accessed on 1 December 2003.
- Hoversten, Paul. 1997. "EPA puts plant on hold in racism case." USA Today, 11 September, p. A3.
- Institute of Medicine of the National Academy of Sciences (IOM). 1999. *Toward Environmental Justice:* Research, Education and Health Policy Needs. National Academy Press, Washington, DC.
- Kalan, Heteen. 1994. "Apartheid and the environment: Polluting the poor." *Toward Freedom*, December 1993–January 1994, pp. 6–8.
- Karliner, Joshua. 1997. *The Corporate Planet: Ecology and Politics in the Age of Globalization.* Sierra Club Books, San Francisco.
- Kay, Jane. 1991. "Indian lands targeted for waste disposal sites." San Francisco Examiner, 10 April.
- Kazis, Richard and Richard Grossman. 1990. Fear at Work: Job Blackmail, Labor and the Environment. New Society Publishers, Gabriola Island, BC.
- LaDuke, Winona. 1999. All Our Relations: Native Struggles for Land Rights and Life. South End Press, Boston, MA.
- Lavelle, Marianne and Marcia Coyle. 1992. "Unequal protection." *The National Law Journal*, 21 September, pp. 1–2.
- Lazaroff, Cat. 2001. *Environmental Justice Issues Force Cement Plant to Close*. Environmental News Service. http://ens.lycos.com/ens/apr2001/2001L-04-24-06.html, accessed on 1 December 2003.
- ——. 2000. Pesticide Exposure Threatens Children at School. Environmental News Service, 5 January.
- Lee, Bill Lann. 1995. Civil Rights Remedies for Environmental Injustice. Paper presented at the Conference on Transportation and Environmental Justice: Building Model Partnerships, Atlanta, GA, 11 May.
- 1992. Environmental Litigation on Behalf of Poor, Minority Children—Matthews v. Coye: A Case Study. Paper presented at the Annual Meeting of the American Association for the Advancement of Science, Chicago, 9 February.
- Lee, Charles. 1992. *Proceedings: The First National People of Color Environmental Leadership Summit.*United Church of Christ Commission for Racial Justice, New York.
- Mann, Eric. 1996. A New Vision for Urban Transportation: The Bus Riders Union Makes History at the Intersection of Mass Transit, Civil Rights, and the Environment. Labor/Community Strategy Center, Los Angeles.
- ——. 1991. L.A.'s Lethal Air: New Strategies for Policy, Organizing, and Action. Labor/Community Strategy Center, Los Angeles.
- Marx, Anthony W. 1998. *Making Race and Nation: A Comparison of the United States and South Africa*. Cambridge University Press, New York.
- McDonald, David A. 2002. Environmental Justice in South Africa. Ohio University Press, Athens.
- Miami Herald. 2003. "Navy leaves Vieques." 5 May. www.miami.com/mld/miamiherald/news/opinion/5786428.htm, accessed on 1 December 2003.
- Miller, Pamela K. 2000. "The war against military toxics in Alaska." In R. Bullard (ed.), *People of Color Environmental Groups Directory 2000*. Charles Stewart Mott Foundation, Flint, MI.
- Motavalli, Jim. 1998. "Toxic targets: Polluters that dump on communities of color are finally being brought to justice." E Magazine, July/August, pp. 28–41.
- National Institute for Environmental Health Sciences (NIEHS). 1996. Environmental Diseases from A to Z. National Institutes of Health (NIH) Publication No. 96–4145. NIEHS, Research Park, NC.
- Norell, Brenda. 2000. "Save Ward Valley signs off in victory." *Indian Country Today*, 3 May. www.indiancountry.com/article/857, accessed on 1 December 2003.
- Nuclear Regulatory Commission (NRC). 1997. "Final Initial Decision—Louisiana Energy Services." US Nuclear Regulatory Commission, Atomic Safety and Licensing board, Docket No. 70–3070-ML, 1 May.
- O'Byrne, James and Mark Schleifstein. 1991. "Drinking water in danger." *The Times Picayune*, 19 February, p. A5.

- Okonta, Ike and Oronto Douglas. 2001. Where Vultures Feast: Shell, Human Rights and Oil in the Niger Delta. Sierra Club Books, San Francisco.
- Oliver, Melvin L. and Thomas M. Shapiro. 1997. *Black Wealth, White Wealth: A New Perspective on Racial Inequality*. Routledge, New York.
- Pellow, David N. 2002. *Garbage Wars: The Struggle for Environmental Justice in Chicago*. MIT Press, Cambridge, MA.
- Pinderhughes, R. 1997. "Who decides what constitutes a pollution problem?" Race, Gender, and Class, Vol. 5, pp. 130–152.
- Pirkle, James L., D.J. Brody, E.W. Gunter, R.A. Kramer, D.C. Paschal, K.M. Flegal and T.D. Matte. 1994. "The decline in blood lead levels in the United States: The National Health and Nutrition Examination Survey (NHANES III)." Journal of the American Medical Association, Vol. 272, No. 4, pp. 284–291.
- Reaves, Jessica and Mark Thompson. 2001. "Vieques under fire: Standoff in Puerto Rico." TIME.com, 27 April. www.time.com/time/nation/article/0,8559,107846,00.html, accessed on 1 December 2003.
- Robinson, Deborah M. 2000. "Environmental racism: Old wine in a new bottle." *Echoes*, Vol. 17. www.wcc-coe.org/wcc/what/jpc/echoes/echoes-17-02.html, accessed on 1 December 2003.
- Roisman, Florence W. 1995. "The lessons of American apartheid: The necessity and means of promoting residential racial integration." *Iowa Law Review*, December, pp. 479–525.
- Schueler, Donald. 1992. "Southern exposure." Sierra, Vol. 77, November/December, pp. 45-47.
- Schurr, Brenda. 2001. "Cement plant banned again in Camden." The Record, 11 May.
- South African Department of Environment and Tourism. 1996. *An Environmental Policy for South Africa: Green Paper for Public Discussion*, October. www.policy.org.za/govdoc/green papers/enviro.html, accessed on 1 December 2003.
- Stretesky, P. and M.J. Hogan. 1998. "Environmental justice: An analysis of Superfund sites in Florida." *Social Problems*, Vol. 45, May, pp. 268–287.
- Sunday Times (London). 1997. "Louisiana blacks win nuclear war." 11 May.
- Sweatshop Watch. 2000. *Sweatshops and Women of Color*. Sweatshop Watch. www.incitenational.org/involve/sweatshops.html, accessed on 1 December 2003.
- Takvorian, Diane. 1993. "Toxics and neighborhoods don't mix." Land Use Forum: A Journal of Law, Policy and Practice, No. 2, Winter, pp. 28–31.
- Taliman, Valerie. 1992a. "Stuck holding the nation's nuclear waste." Race, Poverty and Environment Newsletter, Fall, pp. 6–9.
- ——. 1992b. "The toxic waste of Indian lives." Covert Action, Vol. 40, No. 1, pp. 16–19.
- Templet, P.H. 1995. "The positive relationship between jobs, environment and the economy: An empirical analysis and review." *Spectrum*, Spring, pp. 37–49.
- Tetreault, Steve. 2004. "Expert: Yucca launch date will likely be delayed." *Las Vegas Review-Journal*, 3 March. www.reviewjournal.com/lvrj_home/2004/Mar-03-Wed-2004/news/23348639.html, accessed on 1 December 2003.
- Tomsho, Robert. 1990. "Dumping grounds: Indian tribes contend with some of the worst of America's pollution." *The Wall Street Journal*, 29 November.
- Twombly, R. 1997. "Urban uprising." Environmental Health Perspective, No. 105, July, pp. 696–701.
- US Department of Health and Human Services. 2002. "HHS helps in effort to eliminate childhood lead poisoning." HHS Fact Sheet, 4 March, Washington, DC.
- US Environmental Protection Agency (EPA). 1998. *Guidance for Incorporating Environmental Justice in EPA's NEPA Compliance Analysis*. EPA, Washington, DC.
- ——. 1996. Escambia Treating Company Interim Action: Addendum to April, 1966 Superfund Proposed Plan Fact Sheet. EPA, Region IV, Atlanta, GA.
- ----. 1992. Environmental Equity: Reducing Risk for All Communities. EPA, Washington, DC.
- US General Accounting Office. 1993. *Pesticides on the Farms: Limited Capability Exists to Monitor Occupational Illnesses and Injuries.* Report of the Chairman, Committee on Agriculture, Nutrition and Forestry, US Senate, Washington, DC.
- ——. 1983. Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities. Government Printing Office, Washington, DC.

- Wernett, D.R. and L.A. Nieves. 1992. "Breathing polluted air: Minorities are disproportionately exposed." EPA Journal, Vol. 18, pp. 16–17.
- Westra, Laura and Peter S. Wentz. 1995. Faces of Environmental Racism: Confronting Issues of Global Justice. Rowman and Littlefield Publishers, Lanham, MD.
- Wright, B.H. 1998. *St. James Parish Field Observations*. Deep South Center for Environmental Justice, Xavier University, New Orleans, LA.
- Yinger, John. 1999. "Sustaining the Fair Housing Act." *Cityscape: A Journal of Policy Development and Research*, Vol. 4, No. 3, pp. 93–106.

UNRISD Programme Papers on **Identities, Conflict and Cohesion**

PP ICC 8	Environment and Morality: Confronting Environmental Racism in the United States Robert D. Bullard, October 2004
PP ICC 7	The New Economic Policy and Interethnic Relations in Malaysia Jomo K.S., September 2004
PP ICC 6	Managing Ethnic Relations in Post-Crisis Malaysia and Indonesia: Lessons from the New Economic Policy? Khoo Boo Teik, August 2004
PP ICC 5	Racial Justice: The Superficial Morality of Colour-Blindness in the United States Glenn C. Loury, May 2004
PP ICC 4	Policing and Human Rights: Eliminating Discrimination, Xenophobia Intolerance and the Abuse of Power from Police Work Benjamin Bowling, Coretta Phillips, Alexandra Campbell and Maria Docking, May 2004
PP ICC 3	Poverty and Prosperity: Prospects for Reducing Racial/Ethnic Economic Disparities in the United States Sheldon Danziger, Deborah Reed and Tony N. Brown, May 2004
PP ICC 2	Migrant Workers and Xenophobia in the Middle East Ray Jureidini, December 2003
PP ICC 1	The Historical Construction of Race and Citizenship in the United States George M. Fredrickson, October 2003