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Introduction: Environmental Injustice Beyond Borders

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As we upgrade at an ever faster rate, campaigners are calling for action to prevent toxic, electronic or "e" waste being dumped on poor countries. The United Nations believes we generate between 20m and 50m tonnes of e-waste around the world each year. Agbobloshie dump site in Ghana's capital, Accra, is a computer graveyard. But PCs are not given a decent, safe burial—they are dumped on this expanding, toxic treasure trove. Many of the well-known brands are there: Compaq, Dell, Gateway, Philips, Canon, Hewlett Packard. Labels give away the fact that many lived their useful lives in the UK: "Richmond upon Thames College," "Southampton City Council," "Kent County Council," are just a few.

—"Computers Pile Up in Ghana Dump" 2008

The deepening of globalization is fundamentally reshaping, and perhaps even redrawing, the environmental justice terrain. Over the past thirty years, many influential texts on environmental justice, especially those from the United States, have revealed heroic struggles. These have taken place from Warren County, North Carolina, to Kettleman City, California, and from Altgeld Gardens, Chicago, to Dudley Street, Boston, as low-income and minority communities have mobilized to fight off unwanted land uses or gain access to appropriate and adequate public goods and services. While inequalities like these and countless others become visible at the local level as communities seek to "speak for themselves," an often-overlooked scalar dynamic is that many of the perpetrators of injustices are situated in distant locations.

As the example at the outset of this chapter suggests, when European educational and government institutions use and then dispose of their computers, these computers often turn up in waste sites in countries such as Ghana. This is happening despite the 1989 Basel Convention on the Transboundary Movement of Hazardous Wastes and the European Union's (EU) 2002 Restrictions on Hazardous Substances (RoHS)

and Waste Electrical and Electronic Equipment (WEEE) Directives. The WEEE directive is based on the principle of extended producer responsibility, which states that manufacturers are legally responsible for safe and environmentally friendly product disposal or, failing this, they must contract with a government-approved waste-handling firm to undertake disposal. However, according to the Basel Action Network, a transnational social movement organization, approximately three-quarters of the e-waste generated in the European Union is unaccounted for (Basel Action Network 2008). To make the situation worse, many of the shipments to Ghana and other developing countries are placed in containers labeled "secondhand goods" since EU law allows reusable electronic goods to be exported (Greenpeace 2008). EU guidelines state that electronics can only be considered secondhand, reusable goods if they are tested for use and properly packed and labeled. However, estimates suggest that 25 to 75 percent of the secondhand electronic goods exported to Africa are broken beyond repair. The altruistic intent of bridging the digital divide by shipping electronics to other countries is having the unintended consequence of developed nations "dumping on the poor" (Greenpeace 2008, 10).

The act of disposing of e-waste, whether for altruistic reasons or not, highlights a critical aspect of a global environmental inequality that has emerged over the years—namely, the presence of a spatial disconnect between public consumption and the desire for profitability by multinational corporations in one part of the world, and the environmental and human rights burdens these drivers of action can and do impose on others. In some instances, global supply chains are a source of inequities as corporations respond to remote demand by seeking to extract resources or site facilities in ways that pose threats to human and ecological health. In other instances, governments, consumers, and consumptive patterns are driving the movement of waste, toxics, and other hazardous materials to distant locations and, in the process, are having negative impacts on natural resources, environmental quality, public health, and local social and cultural dynamics.

Shipments of e-waste to Ghana, as well as to other developing countries, are an example of a global spatial inequality that is having significant environmental and health impacts. For instance, after the waste arrives at its destination, it often is manually dismantled by workers or scavengers, many of whom are children and teenagers. The workers are given no protective gear and use rudimentary tools such as stones to break the products apart in order to salvage scrap metals. The remaining

waste materials, including plastic and cables, are either burned or dumped into unprotected sites. Samples of soil, ash, and sediments from these waste sites reveal the presence of a wide variety of hazardous substances such as lead, cadmium, phthalates, and chlorinated dioxins. These substances are known to have neurological impacts as well as to promote cancer (Brigden et al. 2008; Greenpeace 2008). The result is that those who have direct contact with the materials are exposed to hazardous substances, as are residents of surrounding communities, because of toxins being disbursed into the air and leaching into groundwater. The case of e-waste is just one instance among many where poor communities and individuals trying to earn a subsistence wage are faced with significant environmental and health impacts as a consequence of consumption and "business as usual" in other parts of the world.

Drawing on diverse international case studies, this book illustrates how an increasingly globalizing world is altering the environmental justice terrain. Injustice, in this context, refers to the presence of inequalities that result when particular groups, values, or views are given privilege over others (Young 1990, 1996). According to the U.S. Environmental Protection Agency, an environmental injustice is present when communities, groups, or individuals must contend with an environmental burden that is not of their making and does not reflect their preferences, or when the acceptance of a hazard fails to provide significant and meaningful benefits to all of the affected parties. Most studies of environmental justice focus on how local, regional, and nationally initiated hazards affect domestic communities and groups. While domestic environmental injustice(s) will continue to remain important in specific locations around the world, this book examines how globalization is changing the scalar dynamics of inequities by increasing the distance between those who benefit and those who must cope with the social, economic, and environmental inequalities resulting from corporate behaviors and governmental indifference (Kurtz 2003).

Changing Environmental Justice Scholarship

Since the 1970s, academic and community activists in the United States have focused on the ways in which environmental "bads," such as the siting of hazardous waste facilities and the emission of toxic chemicals into the air and water, and environmental "goods," such as parks and open spaces, are unequally distributed among the general population. Such proximity and distributional analyses were part of the "first wave"

of environmental justice scholarship (Williams 1999). For example, in 1982, the U.S. General Accountability Office (GAO)[1] examined the location of four landfills containing hazardous wastes in the Southeast portion of the country. While the racial minority population in the region averaged 20 percent, the four facilities were located in communities where they made up 38, 52, 66, and 90 percent of the population. Based on the trends, the GAO concluded that there was enough evidence to be concerned about decision making regarding the location of facility siting (General Accounting Office 1983).

The relationship between race[2] and environmental exposure has been confirmed in numerous studies (e.g., Adeola 1994; Bryant and Mohai 1992; Bullard 1990; Mohai and Bryant 1992; Goldman 1993). A widely cited study conducted by the United Church of Christ showed that, independent of class, communities of color in the United States are at disproportionate risk from commercial toxic waste (United Church of Christ Commission for Racial Justice 1987). It also led to the coining of the term *environmental racism* by Benjamin Chavis. Based on these findings, he maintained that the practice of targeting communities of color as places to locate toxic waste sites and allowing these residents to be exposed to pollutants represented a form of discrimination.

Growing awareness and anger about environmental racism in the location of toxic facilities contributed to the emergence of an environmental justice movement that mobilized to bring attention to these issues and to alter decisions and actions (Cole and Foster 2001; Gottlieb 1993). While the concept of environmental racism points to the presence and location of the problem, environmental justice often is associated with a more positive outlook because it emphasizes a desired outcome (Bryant 1995). The integration of a justice perspective into the claims and vision of the environmental movement fosters greater appreciation for and understanding of the relationship between humans and the environment (Bullard 1993). From this perspective, environmental concerns are not limited to nature and natural resources, but extend to ways the natural environment sustains and affects human health and well-being. In other words, people are entitled to equal access to environmental goods such as clean air, parks, and water as well as to equal protection from environmental threats (Bullard 1993; Agyeman, Bullard, and Evans 2003).

The centrality of race as the driving factor in the location of toxic waste and facility sitings has been challenged by scholars who argue that socioeconomic status and market forces are at the root of these decisions (e.g., Been 1994). For more than two decades, the debate has ensued

over the relative roles of race versus class as predictors of exposure to disproportionate levels of environmental risk (e.g., Pulido 1996; Mohai and Saha 2006, 2007). Assessments of race and socioeconomic status associated with facility sitings remain central to the field. However, scholars have demonstrated that environmental exposures extend to a variety of issues, such as workplace safety and subsistence lifestyles (e.g., Perfecto and Velasquez 1992; Pellow and Park 2002; Corburn 2005), and that environmental inequalities can be attributed to a diverse array of factors, including gender (Krauss 1993), disability (Charles and Thomas 2007), and immigration status (Pellow and Park 2002), among others.

As many scholars were expanding their understanding of environmental inequalities and coming to recognize that a broader range of subpopulations are affected by deeply entrenched patterns of inequity, others were developing increasingly robust quantitative models to examine proximity to and the distribution of environmental hazards among the general population. While this research originated in the United States, parallel investigations and analyses have been conducted in Canada (Agyeman et al. 2009; Gosine and Teelucksingh 2008), South Africa (McDonald 2002; Jacobs 2003), Latin America (Carruthers 2008), the former Soviet Union (Agyeman and Ogneva-Himmelberger 2009), Nigeria (Agbola and Alabi 2003), India (Williams and Mawdsley 2006), France (Laurian 2008), The Netherlands (Kruize et al. 2007), and the United Kingdom (Stephens, Bullock, and Scott 2001; Agyeman and Evans 2004). Collectively, these studies demonstrate that vulnerable groups throughout the world are not only shouldering a disproportionate share of both environmental burdens and opportunities, but also lack recognition and voice in the many decisions that affect their lives (Schlosberg 2007; Schrader-Frechette 2002; Young 1990, 1996).

In recent years, environmental justice scholarship has taken a new turn. In an effort to develop more robust theories, an emerging wave of scholarship builds on the understanding of inequitable distribution, but takes a cross-disciplinary perspective to explaining the roots of inequity as well as offering potential solutions. Rather than focus on distribution and proximity per se, these studies explore the multiple spatialities of environmental injustice (Walker 2010; Holifield, Porter, and Walker 2010) while anchoring their analyses in social theory (e.g., Pellow 2000; Sze and London 2008), theories of the racial state (Kurtz 2010), urban political ecology (Swyngedouw and Heynen 2003), and gender studies (Buckingham and Kulcur 2010). In addition to offering a critical perspective on

spatial dynamics associated with environmental injustice, these works also are pointing to the ways multilevel institutions give rise to and reinforce unequal exposure to environmental inequalities and differential access to environmental goods (Holifield, Porter, and Walker 2010; Walker and Bulkeley 2006; Pellow 2000).

The Globalization of Environmental Inequalities

The rise of transnational practices associated with resource depletion and manufacturing and the increasing movement of pollutants and waste across borders have created multiple spaces for new, critical understandings of the relations between a globalized economy, environment, and society. Indeed, as Szasz and Meuser (1997, 111) argue, "Environmental inequality is a global phenomenon routinely generated by the normal workings of international political economy." For many years, as academics and activists from the global South have shown (e.g., Bello 1992; Escobar 1996; Khor 1993; Shiva 1997), transnational corporations have located their facilities in remote locations to obtain cheap labor and supply chains have reached into the far corners of the earth to obtain the raw materials that sustain global production and consumption. These practices have given rise to countless examples of how communities that rely on these enterprises for their livelihoods and resources for their subsistence are exposed to unhealthy, unsustainable, and inequitable forms of development (Byrne, Glover, and Martinez 2002; Sachs 2002; Agyeman, Bullard, and Evans 2003; Newell 2005).

Inequalities stemming from foreign exploration, exploitation, and investment have been taking place for many years and in many nations. However, technological advances have made it possible for the perpetrators of degradation and injustice to never set foot on foreign soil and, in some instances, to not even be aware that they are causing harm in other parts of the world. While emissions have long been recognized as transcending international boundaries, issues such as the movement of e-waste to developing countries or the impacts of climate change have shifted the scale and spatial nature of the problem. The result is that in addition to placing groups and communities at risk, in some instances entire nations and continents are coping with threats as a consequence of consumption patterns in distant lands (Adger et al. 2006; Roberts and Parks 2007). The impacts of climate change, for instance, are exacerbating existing global inequalities as less developed countries are faced with attending to a problem that is not primarily of their making and that

they are ill equipped to address (Adger et al. 2006; Anguelovski and Roberts, chapter 2, this volume).

The increasing distance between those who benefit and those who must contend with the environmental, health, economic, and social impacts of remote demand is intertwined with the rise of spatial inequities due to global economic, social, and political institutions. Over the years, science and technology have resulted in innovations that have improved and become synonymous with a desired quality of human life. Despite the advances they offer, many new products and processes have been accompanied by a host of new environmental and health risks that can be attributed to the exportation of production, the transport of products, and the disposal of toxic wastes to remote locations (Beck 1992).

Environmental inequalities tend to be understood and addressed in ways that reflect one of two distinct theoretical views. The proactive efforts of corporations, as well as those of many governments and some nongovernmental organizations, often are rooted in the view that economic growth and ecological conservation are compatible. From this perspective, known as *ecological modernization* (Mol 1995), environmental reforms through advances in science and technology make it possible to address risks, and therefore to continue to pursue economic development without altering consumption and other forms of demand (Mol and Sonnenfeld 2000). In this way, some states and corporations have taken the initiative to engage in what they believe to be more environmentally and socially responsible behavior. However, as the view known as the *treadmill of production* suggests, the desire for profitability and the aims of economic and political elites often take precedence over social and environmental considerations (Schnaiberg 1980; Gould, Schnaiberg, and Weinberg 1996).

Rather than seek to explain consumption and demand, and its relationship to production and risk, much environmental justice scholarship places equity and equality, as well as community capacity, connectivity, and resilience, at the heart of its analysis (e.g., Blowers 2003; Pellow 2007). However, the presence of the global spatial disconnect, which is a manifestation of spatial injustice, also gives rise to a new set of questions and issues that form our point of departure in this book. In particular, we consider the ways that global production and consumption entrench existing wealth and power dynamics, whether international institutions and emerging governance structures live up to their promise of promoting equity, and the types of institutions, networks, and governance measures

that provide recognition, voice, and capacity to populations and groups most at risk (see Adger et al. 2006). Addressing questions such as these provides a means for understanding and fostering environmental and social change. While they may not alter demand or break the cycle associated with the treadmill of production, the answers to these questions provide new insights into how vulnerable individuals and communities might come together alongside key transnational social movement and nongovernmental organizations such as the Basel Action Network and Greenpeace International, to develop what Faber (2008) and Pellow (2007) characterize as an emergent transnational movement for environmental justice.

Chapter Overview

The chapters in this book demonstrate how spatial and multilevel institutional dynamics interact to shape the ways global inequalities play out in local contexts. In particular, they integrate spatial and institutional perspectives to examine how social and environmental inequalities propagated by remote demand and consumption are constructed, understood, experienced, and addressed. Toward this end, they are organized into three thematic sections. Part I, "Consumption and the Rise of Inequalities beyond Borders," examines how consumption and production in distant locales can undermine and threaten local environmental quality and human rights. In chapter 2, Anguelovski and Roberts take consumption and the emission of greenhouse gases in the global North as a starting point for understanding the presence of environmental and social burdens in Durban, South Africa. While they echo themes in the literature about how climate change is contributing to inequities across countries, they provide an in-depth assessment of how climate impacts further entrench disparities within countries. In particular, they demonstrate the climate inequalities faced by poorer and fragile residents in Durban and examine how climate change is affecting the municipal goals of infrastructure development, tourism expansion, poverty reduction, and sustainable development. They conclude by discussing how Durban is responding to spatial inequity through climate adaptation planning and implementation.

Inequities stemming from foreign demand for oil and gas form the basis of chapter 3, by Stephenson and Schweitzer, who focus on the environmental justice claims of the Ogoni peoples in response to petroleum extraction in the Niger River Delta. While many accounts of environmental degradation in the Delta are attributed to multinational

firms, the authors suggest there are far more interdependencies than are often acknowledged and that achieving environmental equity is contingent on accountability across multiple scales of governance. Chapter 4, by Ali and Ackley, examines the impact that investments are having in Fiji and the pros and cons of economic diversification for local populations. Extending arguments initiated in the previous chapter, they maintain that justice will only be achieved when it is accompanied by environmental policies and systems of accountability that foster communication and coordination across industrial sectors and levels of government.

Part II, "The Amplification of Inequality through International Donors and Institutions," consists of three chapters, each of which examines how global institutions and protocols—often designed to foster justice—can inadvertently promote and further entrench inequities. In chapter 5, Lewis picks up on the theme of foreign investment. However, her focus is on how funding for environmental projects from foreign foundations has shaped environmental agendas in Ecuador. She observes that many donors target their support for biodiversity projects rather than issues such as pollution reduction, workplace safety, and natural resource protection. She argues that the promotion of these agendas has, in turn, marginalized the growth and activism of organizations that focus on issues related to environmental justice.

Vermeylen and Walker take a different starting point in their investigation in chapter 6 by examining how international conventions designed to protect the rights of indigenous[3] peoples and communities from exploitation do not always achieve their stated intent. More specifically, they examine how extraction of Hoodia, a plant that has medicinal properties, has undermined environmental quality and the rights of the San tribes in Namibia and South Africa. They maintain that because conventions are based on values and views imposed by external parties, they are unable to achieve outcomes that are regarded as just and fair in indigenous communities; these outcomes may even contribute to the rise of internal dissent. Caniglia also considers international protocols in chapter 7, but focuses on the structure and processes of committees and organizations rather than the outcomes of their decisions. Through an assessment of the Committee on Sustainable Development and the United Nations Convention on Climate Change, she finds that treaty organizations are unable to be as responsive to the claims of nonstate actors, and therefore are less likely to engage and support issues of environmental justice. As with other chapters in this section, her chapter points to the

ways in which international institutions designed to promote equitable outcomes can have unintended and paradoxical effects.

The first two sections of the book illustrate the ways inequalities are perpetrated and often amplified through remote demand and the activities of international organizations. While all of the chapters consider how equitable outcomes can be achieved, those in Part III, "Networked Responses to Global Inequality," place at the heart of their analysis the ways governments and civil society actors have dealt with global pressures. In chapter 8, Weidner examines the expansion of Chinese oil extraction into the global South and how the patterns of human rights abuses, labor injustices, and ecological destruction have varied across regions. She maintains that the practices of operators in all parts of the world are below acceptable standards, but finds that the presence and impact of transnational networks in Latin America have resulted in the formation of standards that all operators are required to meet. In contrast, the advocacy vacuum in Africa and Asia, has few activists, NGOs, scholars or journalists monitoring, challenging, and calling attention to the practices of operators. This has resulted in Chinese firms being able to employ a lower standard of environmental protection measures.

In chapter 9, Alkon also contributes to the argument that transnational mobilization can affect change through her assessment of the effects of the Green Revolution and subsequent World Bank and International Monetary Fund policies of demand privatization in Latin America. Drawing on cases of Cuban organic and low-input agriculture and the Brazilian city of Belo Horizonte's declaration of food as a human right, Alkon demonstrates that some national and local governments have countered the domination of market-driven forms of agriculture by increasing food access and local control of the food system. She continues, using the demands for "food sovereignty" among organizations such as Brazil's Landless Workers Movement and movements such as *La Via Campesina*, to demonstrate the impacts of structural adjustment and to illustrate ways the U.S. food justice movement can strengthen its opposition to existing policies by drawing on transnational network ties to expand the movement globally.

In chapter 10, Hicks expands on discussions of transnational networks by showing that there are times when local groups trying to address undesired corporate practices and unwanted land uses need to bypass the state to achieve equitable outcomes. Using examples of mining disputes in Bulgaria, she suggests that in countries with weak norms of participation and inconsistencies in the rule of law, local groups are more

effective when they enlist the support and tap the strengths of national and transnational environmental and human rights organizations.

The final chapter in the section—chapter 11—is by Pellow, who further explores the rise of a transnational movement for environmental justice. Drawing on the case of toxic waste disposal in Mozambique, Pellow demonstrates how transnational inequalities can affect vulnerable and privileged populations alike and how transnational activists can effectively work to leverage power across borders.

Part IV, "Conclusion," brings the book to a close. In chapter 12, "Reflections on Environmental Equality beyond Borders," Carmin and Agyeman summarize major trends revealed by the previous chapters. While many individual chapters affirm classical views and arguments present in the environmental justice literature, together they offer a richer, more nuanced perspective on how global forces affect localities and how they can further entrench existing inequalities. At the same time, they point to the ways networks and mobilization can foster institutional change and promote social equality and environmental justice.

Notes

1. At the time, the GAO was called the General Accounting Office.

2. We are aware of the contested nature of the concept of "race" (see, for instance, Omi and Winant 1994). While race may not stand scientific scrutiny as a robust categorization of humans, we use it in this introduction since it is a powerful and widely used construct among the public and in the environmental justice literature.

3. The term *indigenous peoples* is less specific and strict than some terms such as First Peoples or First Nations. However, we adopt this term because it is commonly used by organizations such as the United Nations, the International Labour Organization, and the World Bank.

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