THE SUSTAINABLE DEVELOPMENT PARADOX

Urban Political Economy in the United States and Europe

Edited by
ROB KRUEGER
DAVID GIBBS

THE GUILFORD PRESS
New York London

CHAPTER 3

Microgeographies and Microruptures

The Politics of Gender in the Theory and Practice of Sustainability

SUSAN BUCKINGHAM

In a piece written when the concept of sustainability was in its infancy—when people were still questioning its semantic value and it was far from being a political commonplace, at least in Europe—Visvanathan eloquently dismissed the utility of the term "sustainable development": "sustainability and development belong to different, almost incommensurable worlds. We were told in catechism class that even God cannot square the circle. Sustainable development is another example of a similar exercise" (Visvanathan, 1991: 238).

I would add, and intend to use this chapter to justify why, that sustainability is especially problematic once it is coupled with "gender," or, indeed, any other signifier of relative disadvantage, for one thing society definitely does not need is for gender relations to be sustained in the unequal forms in which they currently exist. Much (although I would argue, not enough) has been written about the relationship between gender and environment, and much of this literature explains how contemporary gender relations expose women, more than men, to envi-

ronmental problems. (For an overview of this body of work, see Buckingham-Hatfield, 2000; Buckingham, Budd, Lynn, Murphy, & Sutton, 2005; Mellor, 1992; Mies & Shiva, 1993.) It also argues that a social system that creates and supports gender inequality through continuing to privilege masculine qualities such as aggression and competition has significant negative impacts on the environment. Sherilyn MacGregor has reached similar conclusions in her contribution to a recent book on environmental citizenship in which she argues that environmental sustainability is impossible without gender equality (MacGregor, 2006).

While it is possible to read an essentialist argument into some of the earlier work on feminist ecology (see, e.g., Merchant, 1996), most of the more recent literature, and particularly that on which this chapter draws, stresses the importance of prevailing social structures that continue to benefit masculine social elites in influencing attitudes toward the environment. It is the circularity of these structures, in which prevailing social hierarchies are maintained by the self-interests of their beneficiaries, with which this chapter is concerned. In particular it is concerned with the mechanisms that have the potential to disrupt this circularity.

If anything can be rescued from the term "sustainability" it is the recognition, at least, that the economic, environmental, and social are inextricably bound. Elsewhere I have argued with my coauthors that socioeconomic structures across the world work against gender equality, and yet we concluded optimistically that women seize what power and control they have over their lives despite these structures (Buckingham & Lievesley, 2006). In arguing this, I found Alain Lipietz's concept of "microruptures" powerful in creating the potential for change (Lipietz, 2000) and will suggest here that there are points at which existing policy and practice can be ruptured to make space for change in which environmental issues and gender equality can be addressed in mutually constructive ways. But this is not going to be easy, as gender inequalities permeate—and construct—the environmental movement, as well as government policymaking and business practice.

The second concept that will be used to analyze the neglect of gender in sustainability discourses is that of microgeographies. While poverty, race, and ethnicity are strongly contoured, gender (and consequently gender–environment) relations are often hidden within bodies and households (e.g., see Butler, 1990). Feminist theorists have long argued that this invisibility has worked against theoretical and political development of gender equality (Lister, 1997), and this is equally true of

gender sensitive environmental justice analysis and programs. Swyngedouw and Heynan (2003: 913) in their political ecology review of environmental justice note, though not in specific reference to gender, that the scalar capacities of social groups are reflected in the wider scalar hierarchy in which broader, larger scales are accorded more importance than the smallest. In Marston's (2000) review of the social constructions of scale, she accuses Peter Taylor of focusing on the "world economy" as the scale that "really matters" (Marston, 2000: 226). The "urban scale" experience is where capital accumulation that is ultimately organized at the global scale materializes (but no mention of the neighborhood, household, or bodily scale). Because women have the greatest traction at the smaller scales (the household and neighborhood), it stands to reason that any changes—microruptures—they might achieve will be at this level. However, the ability to move across scales is predicated on the ability of oppositional movements to "take advantages of resources at one scale to overcome the constraints encountered at different scales" (Staeheli, 1994: 388). This, Staeheli argues, defines the power of actors and their "potential for pressing their claims" (p. 388). This implies that there are two changes that are needed to gender-democratize sustainability policy and practice. Scaling up, more women need to be involved in high-level decision making. Given that one of the arguments for more women to participate is to recognize and value the diversity of experience with regard to the environment in this decision making, it is axiomatic that the increase in the number of women needs to reflect the diversity of women's experience. Scaling down requires an increase in the recognition of what local decision making can achieve, which must involve a genuine devolution of decision making to the locality and community.

In order to pursue these arguments I first consider the shape of the status quo in terms of the gendering of government, business, and the environmental movement, followed by the continuing economic disadvantages that reinforce the feminization of poverty, and consequently makes gender an environmental justice issue, albeit one to which the environmental justice movement gives scant prominence. Building on this, I will then argue that there are organizations that recognize that environmental sustainability requires social equity to be achieved, and I will particularly examine the proposal that "gender mainstreaming," as advocated by the United Nations, World Bank, and European Union, has the potential to address broad and interlinked issues concerning sustainability if the barriers set up by national governments, business/industry,

and the prevailing environmental campaigning culture can be overcome. To some degree this illustrates the ability of women's campaigning groups to "jump scale" in the 1990s, taking advantage of the relative openness of international organizations when national legislatures appeared resistant to change. (See, for example, Marston's analysis of the U.S. antinuclear weapons movement, which was able to transcend local and national state political opportunity to direct their protests to global businesses headquartered in Massachusetts ([Marston, 2000: 224]). In particular I will draw on research undertaken for the European Union in 2003 that examined the scope of gender mainstreaming in municipal waste management. The findings of this, together with the following review of research elsewhere, confirm that changing, rather than sustaining or reinforcing, gender roles is critical if environmental problems currently facing the world are to be overcome equitably.

DEFINING APPROACHES AND PROBLEMATIZING SUSTAINABILITY

Sustainability

There has been much written about sustainability in terms of sustaining an environment that will serve future generations as effectively as it serves ours, but beyond this there is much disagreement about what, and how meaningful or useful a term, "sustainability" actually is. We might question whether sustainability is about sustaining the current environment (i.e., not allowing it to worsen) or about enabling it to be sustained for future generations (i.e., not to damage it beyond its capacity for reversal). The first is effectively the position of climate change agreements, which require a stabilization of greenhouse gas emissions at 1990 levels, whereas the second can be illustrated by agreements on biodiversity that require a sufficient species critical mass to be preserved for future utilization. Alternatively it can be about enabling communities to sustain themselves or be sustained, a particular thrust of the U.K. government's "Sustainable Communities" program, which defines a "sustainable community" as a place where "people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all" (Department for Environment, Food and Rural Affairs, 2005: 121).

"Sustainability" and "sustainable development" are political concepts, although little of the research on these concepts theorizes underlying power relations (Lipietz, 1995). These power relations (including patriarchy), and the articulation of sustainability with the production—and reproduction—of capital, place it preeminently in the intellectual domain of political ecology. So, although I think "sustainability" is an unhelpful way of envisioning an environmental and social future in that it makes assumptions that what we have at present is something we want to capture or secure, it does provide a conceptually useful toehold for analyzing the power relations between human beings and nature that is political ecology. This is an important distinction to make, as sustainability is particularly problematic when we consider gender relations, which, many would argue, need a complete overhaul.

Gender and Environment Relations

Gender relations are the neglected social dynamic of "sustainability"—as they have been with every other revolution that has sought one dimension of social change, on the back of continuing uneven gender relations. Political revolutions the world over have generated support from women on the basis that once the class war has been won, then gender inequalities can begin to be addressed (see Hunt on justifying the "war on terror" in Afghanistan and Iraq, 2006; Lievesley on Cuba, 2004, and on Latin America and Russia, 2006a, 2006b; Mehdid on Algeria, 1996). As these authors demonstrate, once relegated in this way, gender inequalities are never redressed. The reason for this is that the solution to the class/colonial inequalities that these revolutions promote is not only unequal to the task of creating gender equality—more than that, it is born of and grounded in these inequalities.

Andrea Nightingale, in a poststructuralist analysis of the relationship between gender and environment, argues that so long as "environment" remains the focus for attention, as it appears to be within mainstream environmental debates, then, in the face of impending "risk," "it is considered difficult to make a clear argument about why we need to care if men and women have different experiences and knowledge of that risk" (Nightingale, 2006: 170). Through her work in Nepal's community forests, Nightingale proposes that "gender" and "environment" are mutually constituted and that attention to the ways in which gender is "performed" "is crucial for understanding how environmental issues come to be environmental in the first place" (Nightingale, 2006: 172).

While I am more inclined to see gender-environment relations more as a product of powerful and endemic structural relations, Nightingale's argument supports my own in that the strategies being developed to *sustain* our current environment rest upon gender inequalities and gender roles. I will argue that contemporary notions of sustainability, like the political revolutions in the past, rest on presumptions of inequality. Lipietz has argued, in support of political ecology, that "our relationship with nature is bad, because relationships between human beings are already bad" (1995: 148). To take this point further, the nature of these relationships must then be examined, and gender inequality is a persistent factor in this.

Microruptures

Alain Lipietz has argued the potency of microruptures as a way of achieving incremental change, from a position of "radical democratism" and as a "go-between from social movements to institutions" (2000). Coming from a Marxist intellectual tradition and a position in the French Green party, he argues that political ecology is the "21st century inheritor of Marxism, in that it is the only viable response to continuing problems." In so doing, Lipietz claims both an analytical/theoretical and practical role for political ecology in society–environmental relations, which he considers in need of revision. His experience suggests the potential for some positive change to be achieved within and despite broader social and economic structures. In an earlier polemic, he argues against the charge of "why try to do something when there are billions of people around us conspiring against our environment? And why try to do something when what one achieves is tiny in comparison with what remains to be done?", concluding "everybody's environment is every one of us . . . it is worth the effort, and . . . there are billions of us" (Lipietz, 1995: 151). Following Lipietz, political ecology, then, calls for both theoretical analysis of the political and social processes involved in the production of "sustainability" and practical action, which recruits "sustainability" for social change.

THE STATUS QUO

Decision making is structured by inequalities, and this affects decisions made in the environmental sector as much as anywhere else: in government, industry, and also in the campaigning field. This section briefly

examines these three broad areas to reveal the persistence of gender inequality and the potential impacts of this on sustainability.

Government

Women constitute around 25% of Members of the European Parliament (MEPs) and 18% of U.K. Members of Parliament—with around 30% of the U.K. Cabinet being women. Table 3.1 shows the low participation of women in formal political activity in the European Union, while Table 3.2 illustrates a similar pattern elsewhere. In the United States in 2005, 14% of the 100 U.S. senators and 16% of state governors were women. Indeed, it is notable from the selection in Table 3.2 that a continuing rise in the number of women in parliaments is by no means an inexorable trend, with sizable declines recorded in a number of countries in both the global South and in countries previously under communist control in central and eastern Europe.

Worldwide there are few political fora where women are able to form a critical mass, which Bhattar (2001) argues is necessary for women to support one another in policy initiatives, to be a catalyst for other women to become involved, and to be in a position to allocate and control resources. About 30–35% is the proportion that generally is considered to achieve this critical mass. Of course, such a proportion in itself is only a proxy for the degree of change—simply having women in power is no guarantee that attitudes toward anything, and particularly gender equality or environmental policy, will change—but it does represent the potential for change, which, as will be illustrated below, can make a difference. Although it is not possible to establish a causal link, it is worth noting that in countries with relatively high proportions of women as legislators there is also a greater emphasis on sustainability, as analyses of Welsh, Swedish, and Norwegian policy confirms. Sweden was the first country worldwide to introduce a quota system to increase the number of women in Parliament and was the first country to reach something approaching gender parity in their representation. In the devolved government in Wales, 56% of its Cabinet appointments were women in 2005; it was also the only U.K. legislature that had a statutory "sustainable development" policy. A Commonwealth Secretariat document suggests that "even a few women in the corridors of power lead to a more participatory, less autocratic style of government" (Commonwealth Secretariat, 1998), and it is, therefore, tempting to conjecture that such a critical mass of women can instigate enough microruptures to effect significant change. It is, perhaps, important to stress here that there are many reasons why women are likely to bring a different attitude toward the environment to decision making, which a later section on social and economic disadvantage will develop.

National power structures are generally characterized by an inverse relationship between degrees of power, on the one hand, and degrees of localness and higher proportions of women, on the other. Women are generally more prominent in local government—in England and Wales,

TABLE 3.1. Positions Held by Women and Men in European Union Institutions, 2004

Role/institution	% women	% men
Members of European Parliament	28	72
Senior Ministerial Positions—EU Average	25	75
Junior Ministerial Positions—EU Average	22	78
Members of Parliament—EU Average	23	77
Members of Upper House—EU Average	21	79

Note. Data from European Commission, Employment and Social Affairs (2004).

TABLE 3.2. Women in Politics in Selected Countries

Country	% of women-held seats in national parliaments in 1990	% of women-held seats in national parliaments in 2003
Australia	6.1	27.1
Canada	13.3	26.5
Bangladesh	10.3	2.0
Dominica	10.0	18.8
Guyana	36.9	20.0
Hungary	20.7	9.8
India	5.0	9.6
Romania	34.4	8.2
Seychelles	16.0	29.4
South Africa	2.8	30.7
Sweden	38.4	45.3
Uganda	12.2	24.7

Note. Data from United Nations (2005).

for example, around 30% of local councillors are women—notably women are most active in grassroots community action, which is often the only forum in which women feel they can express their concerns, substantiating Swyngedouw and Heynan's earlier point about social hierarchies reflecting scalar hierarchies.

Business and Industry

Business and industrial sectors worldwide have always been overwhelmingly dominated by men and by masculine ways of operating. This is evidenced by the pitifully few women who sit on the boards of major companies or who hold chief executive posts. For example, only 8% of boardroom seats on Europe's top-listed 200 companies were held by women in 2004 (European BoardWomen Monitor, 2004) . The most recently recorded *Guardian* survey of boardroom demographics of the FTSE 100 (the 100 largest companies on the Financial Times Stock Exchange) reveals a downturn: compared to 20 woman executive directors in 2005 (vs. 15 and 17 in 2003 and 2004, respectively), in 2006 there were just 12, with only 112 nonexecutive directors (compared to 122 in 2005). Twenty-seven of the 100 companies had no female board members whatsoever (*The Guardian*, 2006). Furthermore, a Deloitte & Touche report reports "huge gender imbalance in the boardroom. There has been no increase in the number of female executive board members, and only a 1% increase in the number of female non-executive directors. Women only make up 3% of executive directors and 10% of non-executive directors across the FTSE 350" (Deloitte & Touche LLP, 2006).

There is also a conspicuous lack of women in key fields that make a significant impact on, or potential contribution to, the environment: energy, transport, water, waste management, and building. For example, in Germany, 20% of employees in the energy industry are women, and only 3% of management and professional staff are women (Climate for Change, 2002). The professions that support these industries are likewise gendered: planning, architecture, surveying, engineering, physics, chemistry. For example, in 1994, Greed found that less than 10% of practicing architects, less than 20% of accredited planners, and less than 10% of surveyors in the United Kingdom were women. Although there are campaigns to encourage more young women to enter these professions, there continues to be a significant gender imbalance. Inequalities in government and business are well known

and discussed. However, very little analysis has been made of the environmental movement itself.

Environmental Campaigning Groups

The majority of environmental campaigning groups tend to replicate the unequal gender relations found elsewhere in industry, business, and government that Joni Seager's review of the North American Environmental Movement revealed in the early 1990s (Seager, 1993). In a review of environmental nongovernmental organizations (ENGOs) that are members of the European Union's Civil Society Contact Group, 43% of the heads of these groups were found to be women, while only 24% of members of their highest decision-making bodies were women. Contact Group members have agreed as a condition of their membership to promote gender parity, so it is reasonable to assume that ENGOs that are not part of this group are unlikely to have better women's representation in their senior management. Table 3.3 gives a good indication of the gender profile of a number of the largest British environmental organizations in the financial year 2004/2005.

Table 3.3 shows that governance of these major environmental campaigning organizations, which are increasingly significant players in determining governmental policies, is markedly gendered. Only one of the six organizations had a female chief executive, and only one had a female chair of the board of trustees, and all the boards of trustees were predominantly male. Further reading of the annual reports from which these data are drawn reveals that councils, regional boards, and so on are similarly gendered. While it is not possible to conclude with certainty that this has affected the groups' policies and campaigns, given the weight of evidence in other organizations suggesting that the gender of decision makers affects the nature of decisions taken (see Bhattar, 2001, referred to earlier), it would be highly unusual if this were not the case in environmental campaigning.

The founders of the Women's Environmental Network (WEN) in the United Kingdom in 1988 cited as one of their motivations the fact that other ENGOs at the time failed to address women's environmental concerns, or the background underpinning these, a situation largely unchanged during the ensuing years (Women's Environmental Network, 1993). That WEN faces persistent funding difficulties is largely explained by a recent report undertaken by the Women's Resource Centre, which found women's campaigning groups in the United Kingdom to be

TABLE 3.3. Gender Profile of Major Environmental U.K. Organizations, 2004–2005.

Organization revenues	CEO	Chair	Board of trustees
Council for the Protection of Rural England	Male	Male	Male president, all 5 vice presidents male; all 5 national executives male
Friends of the Earth	Male	Male	9 male, 4 female
Greenpeace	Male	Female	All male
National Trust	Female	Male	9 male, 2 female
Royal Society for the Protection of Birds	Male	Male	Key positions male
WWF U.K.	Male	Male	11 male, 2 female

Note. Data from annual reports.

considerably underresourced relative to others. While charities working specifically with women constitute 7% of all charities registered with the Charities Commission, they command only 1.2% of funding (Women's Resource Centre, 2006). A number of reasons are given for this relative paucity of funding, including a shift of government awards to procurement and tendering, which requires the voluntary sector to "frame funding applications within 'the paradigm of need recognised by funders' " (WRC, 2006: 10–13). The WRC report claims that "political rhetoric about women's equality fails to be matched by public investment in women's organisation" (WRC, 2006: 63), and cites evidence such as the Equal Opportunities Commission's receiving less funding than any of the other equalities commissions (WRC, 2006: 63).

Given the observations of Neil Carter (2001) and Chris Rootes (1999) on how campaigning groups become more "incorporated" over time, the gendered nature of their own structures mimicking those in the governments and industries they lobby is highly likely to influence the issues raised and the proposed strategies for redressing them. If, as Nightingale suggests, gender structures environmental issues, then campaigning issues identified by organizations heavily male-dominated at the senior level are equally likely to be gendered.

CONTINUING ECONOMIC AND SOCIAL DISADVANTAGE

Persistent income disparities reinforce the feminization of poverty and consequently make gender an environmental justice issue, although the

environmental justice movement fails, I would argue, to address the gendered nature of poverty and race sufficiently to do it justice.

A survey of poverty and social exclusion published by the U.K. Equal Opportunities Commission (EOC) reported that 36% of women, compared to 30% of men, lived in households with incomes less than 60% of the median. In addition, women were more likely to be poor on all four dimensions of poverty used by the U.K. government (Bradshaw, Finch, Kemp, Mayhew, & Williams, 2003). Even when controlling for other factors such as labor market status, number and age of children, household composition, and age, there was still a clear gender dimension to poverty. In addition, women who are single pensioners, unemployed, of Pakistani or Bangladeshi origin, a teenage householder, or tenant, are *more* likely to be poor than men with the *same* characteristics. Those likely to experience the greatest degree of poverty are lone mothers and older single women.

Women in full-time paid work in the United Kingdom will, on average, earn 81% of the hourly wages earned by men in full-time work. Although this gap is currently closing, the hourly pay-rate gap between women in part-time work and men in full-time work is widening such that these women earn only 61% of the hourly rate of men in full-time work (Kingsmill, 2001). The EOC report also suggests that there is unequal poverty within the household, with some women having unequal access to household earnings in cases where the male partner is the main earner, and that mothers sometimes forgo consumption in order to meet the needs of the rest of their family. In the United States, the situation is even more polarized. The National Commission on Pay Equity has reported that women working full-time yearround earned 76% of the equivalent male wage. Compared with this same earnings figure for men of all races, African American and Hispanic women earned even smaller proportions (60% and 55%, respectively) (National Commission on Pay Equity, 2004).

Links between poverty and poor environmental quality are well documented (FoE Scotland, 2000), and the foregoing discussion suggests that women are on average, consequently, more likely (because they are women) to experience poorer environmental quality than men. Those with low income will be exposed to higher rates of traffic and industrial pollution, as they do not have the resources to buy themselves out of the most environmentally degraded areas. They are more likely to experience fuel and food poverty by living in drafty, poorly insulated, and damp accommodations, and to be more malnourished as a result of be-

ing less discriminating with regard to food quality. U.S. Department of Agriculture data for 2002 established that two-thirds of all households that are "food insecure" (i.e., with limited or uncertain availability of nutritionally adequate foods) are headed by a single parent, roughly 90% of whom are women (National Anti-Hunger Organizations, 2004).

Worldwide, around 1.2 billion people currently live below the UN-defined poverty line of $1 a day, while a further 2.8 billion earn less than $2 a day. Some 70% of these people in poverty are women (Dankleman, 2002). The education gap between girls and boys in the developing world is still sufficiently wide to ensure that gender inequalities will persist into the next adult generation, with UNESCO reporting that girl-boy secondary school enrollment ratios are standing at 0.96 in North Africa and the Middle East, 0.77 in sub-Saharan Africa, 0.95 in East Asia and the Pacific, and 0.86 in South Asia. Only in Latin America (1.07, but a decline since a high 1.14 in 1990) is this reversed (United Nations Millennium Project, 2005). Women constituted 50% or more of nonagricultural wage employment in only 17 of 110 countries reporting data, with 25–49% in a further 76. These figures suggest a lack of independent income for more than half—rising to around 80%—of all women in some global regions. These concerns are articulated as some of the UN Millennium goals, which are far from being met, and call into question the effectiveness of international legislation and agreements.

Given this overrepresentation of women in communities in poverty, it is not difficult to imagine a gendered geography of environmental injustice. However, the nature of gender relations, manifested in the microgeographies of households, interpersonal relationships, and the body, generates more complicated, layered, and less obviously visible patterns of inequality than those evident with race, ethnicity, and poverty. These microgeographies are, arguably, one reason why gender is not considered an important component of sustainability, as the research on waste management will later show.

Structural factors that determine women's economic disadvantage also influence the roles they play in the household. The household is increasingly being seen as a site of consumption, and nowhere is this so evident as in green marketing. Yet, as MacGregor (2006: 110) notes, "The question of how green practices in the private sphere are to be initiated, distributed and sustained is seldom, if ever, asked." MacGregor argues that the increasing emphasis on citizens' "responsibilities" with regard to the environment have a particular impact on women in their role as

both domestic worker and carer. The framing of the citizen as a "responsible consumer" requires mindful purchasing and disposal habits that produce a "paradoxical coupling of labour- and time-intensive green lifestyle changes with increased active participation in the public sphere" (2006: 102). Although the discourse of green rights and responsibilities assumes a gender neutrality, in reality this "masks realities and specificities of gender inequality" and "reveals a lack of consideration for the politics of the private sphere" (pp. 106–107). Indeed, European research on the gendered dimension of municipal waste disposal, which will be discussed more fully later in the chapter, revealed the extent to which recycling and other green forms of waste disposal and minimization were largely the province of women in the household. Successive surveys of environmental attitudes reveal that involvement in the quotidian tasks needed to reduce environmental impact is routinely higher for women compared to men (e.g., 54% of women take paper for recycling, compared with 52% of men; 13% of women buy goods with less packaging compared with 11% men; 19% of women bought organic food, compared with 17% of men [Department for Environment, Food and Rural Affairs, 2002]).

Since gender is inscribed in one's relationship to work and environment, it is critical that all the emerging inequalities be considered commensurately. For example, when "environmental" problems are considered to be more important than social inequalities, strategies taken to address these problems can make these social inequalities worse. Nightingale (2006) has noted in Nepal how the social practices of leaf litter collection are gendered; since these practices are now being seen as ecologically destructive, this has led to changes in practice. However, without the involvement of women in this negotiation, or the involvement of men in the collection, the revised practice necessitates women being involved in physically and temporally more intensive work, which in turn reinforces gender inequality. Changing ecological practice without addressing gendered practices, then, can be problematic (Nightingale, 2006: 176–177).

In the West there are parallels regarding proposals for ways of reducing environmental damage that, without addressing prevailing gender relations, can result in considerably extended burdens for women. The following example illustrates how gender relations in the home and in the work economy, together with government transport, work, and education policy, combine to produce a particular environmental prob-

lem. The various campaigns in the United Kingdom to reduce the car traffic involved in the "school run," where 40% of primary school children are now driven to school (Department for Transport, 2005), focus on the fact that around 20% of morning traffic congestion is caused by the school run, in which women are depicted as the key culprits. Now, while it is undoubtedly true that the majority of school run chauffeurs are women (although not the majority of drivers overall in the United Kingdom), this is a function of the fact that, despite women's constituting 49% of all employees in the United Kingdom (and 38% of all full-time workers; Equal Opportunities Commission, 2006) the latest data available indicate that they still undertake the overwhelming majority of domestic and dependent caring roles (Her Majesty's Government, 1999). This often necessitates "trip chaining" the school run with grocery shopping and paid work and may be the only way in which women can effectively combine their responsibilities in the time available. Indeed, there is an argument to suggest that wider availability of the car has increasingly tied women to these social roles (Law, 1999; Dowling, 2000; Barker, 2006). While accusing these chauffeurs of contributing to congestion and global climate change, there is a disingenuous lack of attention to government decisions over the years to concentrate education in larger schools, or to offer greater locational choice in schools to families who have the resources to transport their children, to restrict school buses for collective pupil transport, or to clear congestion generated by other means to enable children to be able to walk or cycle more safely to school. The situation also reflects a general lack of flexibility regarding work practices, despite EU initiatives relating to worklife–homelife balance, and an economic situation in at least the United Kingdom and the United States, where in many areas families can only survive if both parents maximize their earning capacity (Jarvis, 2005). Consequently, women have tended to become demonized as the culprits of school run congestion precisely because work is gendered and because environmental considerations are, in this case, being prioritized over social inequalities.

Just as the school run is seen as "exceptional" traffic getting in the way of commerce- or employment-related traffic, women's bodies are also seen as "exceptional" to the norm. One of the key arguments for involving women more in environmental decision making at all levels is that their various experiences put them in different and distinctive relationships with the environment. It is likely, from women's own reports, that the experience of carrying and delivering a child contributes to this

distinctiveness. As well as hormonal changes, women also become aware of their and their child's vulnerability, particularly when faced with toxic pollution levels from some foods, chemical emissions, and contaminated water (European Environmental Agency, 2003). Compounding this vulnerability is the lack of control of decision-making processes that consistently fail to represent the most vulnerable people in society, just as has been examined above with respect to women. Another example of the importance of the body in analyzing the relationship between gender and environment is the ways in which women's bodies register environmental pollution in different ways than men's (see Corra, 2003, and Dankleman, 2002). While it could be argued that these last two points are essentialist (in that women's biology is part of that woman–environment relationship), it can also be argued that—along the lines of the "social disability model" used to explain how environments and social attitudes create and sustain disability—it is societies' failure to acknowledge and act on multiple bodily responses to pollution that creates such gendered exposure. If, for example, society were to decide that the norm for safe levels of chemical pollution would be determined by the tolerance of a child or a pregnant woman (who are currently advised to take particular care) rather than seeing these as deviant cases from a fit-male norm, then the responsibility for universal environmental protection would become that of the wider society rather than the more vulnerable themselves or their guardians. (See, for example, Parry, 2004, who reported on the failure of major drug trials to adequately represent all end users.)

The foregoing contextual discussion on how gender inequalities pervade legislation, business, and industry, as well as environmental organizations, not to mention economic well-being and social roles, amply illustrates how such inequalities work against "sustainability." In the following section, I review the ways in which a number of international institutions have begun to make a case that gender inequalities have to be redressed in each of these areas if there is to be a chance for socioenvironmental improvement. This is followed by an analysis of how these internationally agreed-upon principles are, or fail to be, incorporated at the level of the individual state through a case study of municipal waste management in Europe, which illustrates how gender relations have been neglected as a cause of environmental damage and as a possibility for achieving socioenvironmental improvements. The case study suggests that change can be achieved when policymakers are receptive to and generate change (microruptures to the fabric of conventional municipal waste management), but that the majority of policy-

makers are blind to the microgeographies of gender relations and to the potential these offer for socioenvironmental policy change.

THE INSTITUTIONAL CASE FOR GENDER SENSITIVITY IN SUSTAINABILITY

The World Bank has identified practical reasons, consistent with its aims and practices, for incorporating gender equality into its programs. "Gender is an issue of development effectiveness, not just a matter of political correctness or kindness to women. Evidence demonstrates that when women and men are relatively equal, economies tend to grow faster, the poor move more quickly out of poverty and the well being of men, women and children is enhanced" (World Bank, 2002). Such evidence includes high rates of loan repayments, women's enhanced control over their own fertility and consequent lower birth rates, and directed spending on food, clothes, and other essentials, separately also identified by Chant (1997) and Wickramasinghe (1997).

At the United Nations Conference on Environment and Development in 1992, the Rio Principles and Agenda 21 both confirmed the need to consider gender relations alongside sustainability issues, and this has set the pattern for subsequent UN agreements, including those emanating from the World Summit on Sustainable Development in 2002. Although these sentiments are formally agreed by signatories to the various agreements, the extent to which these are incorporated into national policies may be questioned. Given the unique international legislative capability of the European Union, its global policy commitment to environmental sustainability, and its generally progressive record on human rights and gender equality, it is instructive to follow gender mainstreaming through EU decision-making procedures to examine the impact it is likely to have.

Subsequent to the United Nations Conference on Women in 1995, the European Commission adopted a "Communication on Mainstreaming" in February 1996[1] and agreed that gender impact assessment (GIA) should be a core measure of gender mainstreaming in February 1997. This was formalized in the Treaty of Amsterdam, which promotes positive action, albeit without quotas, in favor of disadvantaged groups in order to achieve equality. The European Commission defines gender mainstreaming as the mechanism whereby

> all general policies and measures [be mobilized] specifically for the purpose of achieving equality by actively and openly taking into account at the planning stage their possible effects on the respective situation of men and women. This means systematically examining measures and policies and taking into account such possible effects when defining and implementing them. (Commission of the European Community, 1996)

The commission recognized that unequal treatment and incentive measures may be required to secure de facto equality (which does not inexorably flow from de jure equality). Structurally gendered differences affect the development and operation of all policies and the commission has published guidance on monitoring and impact assessment to enable policymakers to aim for gender sensitivity and to eliminate unintended effects. In January 2003, the Council of Europe also agreed a program of action to promote equal opportunities and to develop gender mainstreaming (Council of Europe, 2003).

The empirical research that informs the rest of this chapter was commissioned by the European Union's Directorate General for Environment and was designed to pilot gender mainstreaming in one environmental field with a view toward establishing, and making recommendations for, good practice. The research was conducted in the United Kingdom, Ireland, and Portugal, where there was evidence that these EU directives had informed policy on gender mainstreaming at the central government level. Data were collected through emailed questionnaires to waste management authorities in the three countries (all authorities in Ireland and Portugal and a sample in the United Kingdom) and through in-depth analysis of four case studies (interviews with key officers and councilors, focus groups with people who participated in the local consultations on the waste management plans, and analysis of documentation). Each of the case studies had been chosen on the basis of previous evidence of good practice in waste management, as the European Union had specified that one of the purposes of the research was to generate exemplars of gender sensitive waste management practice (further details of the research can be found in Buckingham, Reeves, & Batchelor, 2005).

Each of the three countries selected for the research had a stated commitment to equal opportunities and to gender mainstreaming. The U.K. government had published "Policy Appraisal for Equal Treatment, Guidelines for Government Departments" in November 1998, and this was supported by "Gender Impact Assessment: A Framework for Gen-

der Mainstreaming" (Women and Equality Unit, 1998). In Ireland, the Equal Status Act was designed to "promote equality and prohibit types of discrimination, harassment and related behaviour in connection with the provision of services, property and other opportunities" across a range of groups (Department of Justice Equality and Law Reform, 2000: 5). Since October 2001, the Draft National Plan for Women has required gender impact assessment across all policy measures.

Although in Portugal equal opportunities issues have been legislated since 1976, when the Principle of Equality was articulated in the Portuguese Republic's Constitution, the recognition of the need for the integration of a gender perspective on the policy agenda is more recent. Nationally, the adoption of the II National Plan to Equal Rights 2003–2006 offered the possibility of putting this integration into practice in public administration. The Commission for Equality and Women Rights (CIDM) and Commission for Equality in Work and Employment (CITE) are expected to play important roles in implementing and monitoring gender mainstreaming.

Finding evidence for the transmission of these national commitments to equal opportunities and gender mainstreaming, however, was difficult. In the United Kingdom, there was no evidence that government departments (most notably the Department of Environment, Food and Rural Affairs) or agencies (specifically the Environment Agency) were aware of—let alone implementing—good gender mainstreaming practice. Likewise, there was no clear channel through which good practice could be transmitted between central and local government. When each level of government in the three countries was examined for its waste management strategies, only Ireland was found to take gender into account at the national level. At the local level it was found that local authorities' expertise in equal opportunities was not generally utilized in the drawing up of waste management policy.[2] This was as true of substantive issues (as in drawing on expertise in other areas such as transport) as in applying experience of other disadvantaged groups (as in racial/ethnic minorities). Waste management provides a useful vehicle for exploring links between gender inequality, the environment, and sustainability theory. It involves a broad range of activities, both directly and indirectly, that touch many parts of our lives and in which gendered roles are highly significant. Table 3.4 suggests some of the roles and activities and ways in which they are interlinked.

The best example of gender mainstreaming on the ground brought together good practice in employment (where the structure of the waste

TABLE 3.4. Links Between Gendered Roles/Professions and Waste Management Activity

Waste management activity	(Gendered) professional activity	Related (gendered) role
Waste reduction	Female (mainly educational)	Shopping/consumption choices: for example, reusable nappies, lightly packaged goods
Materials reuse	Female (mainly educational; relies on community activity)	Relies on community/charities activity; reuse within home
Recycling	Female	Women found most likely to recycle
Disposal: land fill and incineration	Male (engineering- and technology-based)	Concerns with environmental health (mostly expressed by mothers)

management team defied the general pattern of male senior management, in which promotion tends to be predicated on a background of waste disposal operations), public participation (where a distinct effort had been made to involve women and men from a range of backgrounds in the process) and good waste management practice (particularly a high emphasis on recycling). These achievements had been generated at the local level not as a result of top-down directives, although national strategies and guidance had been used to facilitate this. Through the interviews, it was clear that one of the critical contributors to this outcome was the appointment of a woman as head of recycling, who drew on her own experience of childcare and domestic responsibilities to instigate and support a "real nappy" campaign as one way in which waste to landfill could be reduced. This example demonstrates how one small change in an appointment can trigger a series of other changes that incrementally may produce gender-sensitive environmental improvements. Table 3.5 demonstrates how these areas of good practice were achieved.

The EU gender mainstreaming research concluded that in what was evidently a highly masculine policy area in all three case study countries, officers, elected representatives, and the public were generally unaware of the likely gendered impact of waste management and often felt uncomfortable with what they thought might be seen as the favoring of a particular group. It was clear that waste management

TABLE 3.5. Good Practice Example of Gender Mainstreaming Waste Management

Activity	Example	Outcomes
Employment practice	Critical mass of women employees, including woman financial manager and head of waste minimization	Authority working through LGA Equalities Standard and working with own Equalities Officer to improve service delivery
Public participation	Consultancy hired to sample population in a stratified way to ensure a representative sample of women invited to public participation and in consultation.	Meetings held at appropriate times/places for a range of people; high response rate to questionnaires
Policy development	Recycling and reuse initiatives, such as real nappies and green cones for composting (low-income families paid to use cloth nappies—reduced Waste Management Authorities' waste disposal costs).	Recycling up to 23% (at a time when the U.K. average was 15%)

planning within the EU, in particular at the local authority level, impacts upon the local community differently according to gender and that gender-differentiated impact was not consistently being taken into account during the stages of designing and implementing municipal waste plans.

Ironically, in most cases, household waste management strategies, which form a critical if generally invisible component of municipal waste management, had not been a consideration of policymakers, who tended to focus on the end product of waste (such as landfill or incineration) rather than its generation. This inattention to the microgeographies of waste generation has implications for the generation of waste that, the research team suggested, could be reduced if waste managers considered the dynamics of waste disposal at the household scale.

Current frameworks for waste management planning design and implementation within the EU are not sufficiently suited to take into account their effects on the respective situation of men versus women, let alone to mitigate the effects. Where equal opportunities expertise had been involved in executive waste management decision making, this appeared to correlate with greater gender sensitivity. Paradoxically, often

good practice of sensitivity in other policy areas (both substantively, as in women and public transport, and via process, as in race awareness), failed to be applied to gender mainstreaming in waste management. One conclusion of this research, unsurprisingly, was the recommendation for much more systematic consideration of gender monitoring and transfer of good practice across policy areas, as it is only when practice and experience are transferred that the potential of microruptures can really be materialized.

Linked to this, a number of obstacles to gender-sensitive practice were identified. While all of the intensive case studies had examples of good practice from which other waste management authorities could learn, they were also critically reflective of practices, assumptions, and resource constraints that limited their ability to be more gender-sensitive. One of the main obstacles that was found, particularly with respect to the questionnaire survey of waste management authorities in general and the Portuguese case study in particular, was lack of awareness that gender constitutes sufficient inequality or difference to warrant specific consideration when formulating policy. Arguably, one of the reasons for this is the burial of these inequalities in the microgeographies of the home, where household tasks such as shopping, cleaning, and recycling are still profoundly gendered. In several cases, the research team were asked for help in providing information to enable gender auditing to take place, which suggests that there is considerable scope for awareness raising. Another finding was that the most successful gender-sensitive initiatives emerged when the waste management authority had developed expertise in gender awareness, so that initiatives emerged out of context-sensitive policy discussions rather than being adopted "off-the-shelf" strategies in response to government policy. In particular, there seemed to be a link between the more gender-sensitive waste management strategies, gender balance in waste management appointments, and more effective public participation, which confirms points made earlier in this chapter that there needs to be greater gender equality at senior levels to permeate this equality throughout both the organisation and its policies. In particular, obstacles to gender-sensitive practice were identified and are shown in Table 3.6.

The reported research has suggested that gender mainstreaming has to be thoroughly embedded in an understanding of gender inequalities and differences if it is to be effective. There also has to be a recognition that gender mainstreaming is a continuous process in which policies and practices must be evaluated and the results of these evaluations must in-

TABLE 3.6. Obstacles to Gender-Sensitive Practice in Municipal Waste Management

1. Absorption with other nongendered equal-opportunities issues. Some localities with significant ethnic minority populations have focused all their efforts on raising the participation levels of ethnic minority groups without recognizing that these groups have different gender dynamics.
2. The attitude that "everyone should be treated the same," which may be the product of fear that some residents may accuse councilors of favoritism. This attitude fails to come to grips with ingrained institutional inequalities.
3. The tendency to cater to an "ideal customer" who, in the past, has tended to be male, middle-class, and white (e.g., civic amenity sites have presumed that users are fit, strong, able-bodied, and tall, based on the physical provision of disposal units—likewise the size and weight of waste/recycling bins/boxes). There needs to be a shift to considering how everyone, regardless of differences, needs to have equal access to services.
4. Inadequacy of the public participation process, which may range from its complete absence to not doing enough preparatory work to ensure representation of different groups of women (and men). For example, only one white male adult surveyed had provided childcare facilities to enable parents with no other childcare opportunity to attend a public meeting.
5. Failure to understand that gender differences and inequalities may have an impact on service delivery. This was most likely to be stated by WMAs in Portugal and by elected representatives in the United Kingdom and Ireland, but it could also be identified in officers and members of the public engaged in public participation exercises. It was, nevertheless, interesting to uncover, through interviews and focus groups, how people could perceive differences and inequality once they were prompted to think the matter through.

form future data collection, gender awareness training, and policy development, including the nature of public participation.

CONCLUSIONS

That one of the four case study authorities in the European gender mainstreaming of waste management research had, as a result of local initiatives, managed to introduce measures to reduce environmental impact by being more inclusive of women suggests the rich possibility of linking gender sensitivity with environmental sustainability. If enough of these possibilities can be generated, then we might be able to conceive of each of these as a "microrupture" in the general fabric of a sustainability predicated on sustaining "business as usual." Such a small change in staffing can, however, disrupt structures elsewhere. For women to fairly

and effectively perform in the public sphere of the workplace, change is also, and concurrently, needed at the most personal level of domestic arrangements. As long as women are expected to undertake the majority of domestic tasks, this challenges the ability to deliver environmental improvements in a number of ways. For example, the time intensity of combining paid and unpaid work means that those needing to do so are likely to use the most convenient rather than the most environmentally benign strategies. While women are expected to undertake domestic tasks, it is they who will be expected to take responsibility for greening the household, leaving men (and boys) relatively unaffected to continue their environmentally destructive lifestyles. Environmental improvements need 100% of the population's commitment, not 50%. Greater sustainability therefore requires changes in the household as well as the workplace: thus the private and public, the workplace and the domestic space, are imbricated.

"Contraction and convergence"—the concept increasingly being taken up by international agencies—refers to the need to reduce consumption among wealthy states to enable poorer states to raise their standard of living. A similar commitment is needed at the smallest scale so that gender equality can be harnessed to reduce negative environmental impacts on the whole population, not just those who have the power and wealth (as currently obtains) or the visibility (the risk of the current environmental movement) to affect policy.

What the European case studies, dwelt on at some length here, illustrate is that *any* change is difficult to achieve. The research indicated ingrained attitudes toward maintaining the status quo, such that any "positive discrimination" to try to redress centuries of disadvantage was seen as politically untenable, and an inability to understand how environmental issues and policies are structured by gender—indeed a failure to understand gender inequality at all—ensured that gender mainstreaming would be a difficult process to initiate, let alone achieve. An interview with a Portuguese environmental organization captured the incredulity that environmental issues might be gendered when the (male) director responded to a question concerning staff involvement in equal opportunities in waste management as follows:

> ". . . equal opportunities team? Ah, that does not matter! Now, seriously, not at all. That's still extraterrestrial here for our kind. . . . There is no approach to the waste regarding gender. Not only regarding waste . . ."

Clearly, the equal opportunities commitment of Portugal's national government had not been effectively transmitted here. When invited to think about the relevance of the gender dimension, this respondent replied:

> "No, I think that's completely new, and, in the end, taking into consideration our lack of time and resources, and the priorities that are in the line, I sincerely think (and this is a personal opinion, not [name of organisation]) that this is not a priority issue regarding waste. . . . I don't even know what to say, to be quite honest!"

This illustrates the problem referred to earlier in this chapter, that of social and environmental inequalities being regarded in isolation from each other. Environmental NGOs dominated by men in decision-making positions can either wittingly or unwittingly use the environmental dynamic to maintain a silence on the social (in this case gender) dynamic.

Even when good gender-sensitive practice existed in isolated pockets of institutions, such as in human resources, there was little evidence that anyone had thought to transmit this practice across to other sectors. Transferring good gender mainstreaming practice across scales, too, was seen as problematic and lacking structures through which this could be attempted. Such institutional barriers ensure that any achievement toward greater gender sensitivity in environmental policy and practice remains isolated. Over time, this might achieve a degree of incrementalism, but this is unlikely to have a significant impact on how environmental policy may be sufficiently changed to tackle fundamental and structurally embedded problems unless there are mechanisms and people who can make the necessary links to jump policy silos.

My conclusion from this and other research discussed at the beginning of this chapter is that legislative and policy changes alone are insufficient to the task of forging an approach to intertwined environmental and social inequalities that will enable these to be redressed. It may be sufficient to the task of "sustainability"—that is, making small-scale incremental changes within the prevailing status quo that will deliver precisely the insufficient reductions in greenhouse gases currently obtaining or that will encourage public acceptance of nuclear power as the preferred alternative to fossil fuels. For the significant change that is needed, many more durable "microruptures" must tear at the fabric of "sustainability" and challenge us to look at a future in which the relationship between gender (and other structures of disadvantage) and environment is constituted differently. Before we get to "sustainability" as a normative aspiration, we need significantly more social–environmental change to ensure that what we are sustaining is of value to the whole community. While, following Lipietz, we should not lose faith in the ability of small changes to generate larger-scale change, "microruptures," such as the few reported in the case study here, must occur at all scales in order to overcome the lack of transmission paths between scales. Nothing short of a *reconstruction* of gender relationships, and consequently of society–environment relations, is required to achieve a condition that is worth sustaining.

NOTES

1. "Communication on Mainstreaming" final of February 21, 1996, on "Incorporating equal opportunities for women and men into all community policies and activities."
2. Waste management authorities' boundaries are not always congruent with those of local authorities.

REFERENCES

Barker, J. (2006). *Are we there yet?: Exploring aspects of automobility in children's lives.* Unpublished PhD thesis, Brunel University, West London, UK.

Bhattar, G. (2001). Of geese and ganders: Mainstreaming gender in the context of sustainable human development. *Journal of Gender Studies, 10*(1), 17–32.

Bradshaw, J., Finch, N., Kemp, P. A., Mayhew, E., & Williams, J. (2003). *Gender and poverty in Britain.* Manchester, UK: Equal Opportunities Commission.

Buckingham-Hatfield, S. (2000). *Gender and the environment.* London: Routledge.

Buckingham, S., Budd, J., Lyon, H., Murphy, D., & Sutton, L. (2005). *Why women and the environment?* London: Women's Environmental Network.

Buckingham, S., & Lievesley, G. (Eds.). (2006). *In the hands of women: Paradigms of citizenship.* Manchester, UK: Manchester University Press.

Buckingham, S., Reeves, D., & Batchelor, A. (2005). Wasting women: The environmental justice of including women in municipal waste management. *Local Environment, 10*(4), 427–444.

Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity.* London: Routledge.

Carter, N. (2001). *The politics of the environment: Ideas, activism, policy.* Cambridge, UK: Cambridge University Press.

Chant, S. (1997). *Women-headed households: Diversity and dynamics in the developing world.* London: Macmillan.

Climate for Change. (2002). *Gender equality and climate policy.* Accessed October 19, 2006, from *http://www.climateforchange.net/22.html.*

Commission of the European Community. (1996). *Gender mainstreaming.* Brussels: CEC.

Commission of the European Community. (1997). *Treaty of Amsterdam.* Accessed February 2, 2004, at *http://www.europa.eu.int/scadplus/leg/en/chc/c10101.htm.*

Council of Europe. (2003, January 22–23). Report of the 5th Ministerial Conference on Equality between Women and Men. *Skopje,* MEG-5 Strasbourg: Council of Europe Directorate General of Human Rights.

Commonwealth Secretariat. (1998). *Gender mainstreaming: Commonwealth strategies on politics, macroeconomics and human rights.* London: Commonwealth Secretariat.

Corra, L. (2003, Autumn). Speech reported in *WEN News.* London: Women's Environmental Network.

Dankleman, I. (2002, March 14–17). Poverty eradication as a challenge for sustainable development. In *Women in Europe for a common future: Why women are essential for sustainable development* (pp. 68–71). Proceedings of the European Women's Conference for a Sustainable Future, Celakovice (Prague), Austria.

Deloitte & Touche LLP. (2006). *Executive directors decline in number as FTSE boards shrink to meet Higgs code.* Accessed October 15, 2006, at *http://www.deloitte.com/dtt/press_release/0,1014,sid%253D2992%2526cid%253D130907,00.html.*

Department for Environment, Food and Rural Affairs. (2002). *Survey of public attitudes to quality of life and to the environment—2001.* London: Author.

Department for Environment, Food and Rural Affairs. (2005). *The UK government sustainability strategy,* Command Numbers 6467. London: Author.

Department for Transport. (2005). *Focus on personal travel.* London: The Stationery Office.

Department of Justice, Equality and Law Reform, Ireland. (2000). *Equal Status Act.* Dublin: Author.

Dowling, R. (2000). Cultures of mothering and car use in suburban Sydney: A preliminary investigation. *Geoforum, 31,* 345–353.

Equal Opportunities Commission. (2006). Accessed August 21, 2008, at *http://www.eoc.org.uk/Default.aspx?page=17922.*

European Board Women Monitor. (2004, June). *Another north–south divide: Women on boards* (press release on the launch of the European Professional Women's Network, citing a survey of the top 200 European industrial and service companies, based on revenue, published by Les Echos and Reuters in *Le Grand Atlas des Entreprises,* Paris, June, 14, 2004.

European Commission, Employment and Social Affairs. (2004). *Positions held by women and men in European Union institutions.* Brussels, Belgium: Author.

European Environment Agency. (2003). *Environmental Assessment Report.* Copenhagen, Denmark: Author.

Friends of the Earth Scotland. (2000). *The campaign for environmental justice.* Edinburgh, UK: Author.

Greed, C. (1994). *Women and planning: Creating gendered realities.* London: Routledge.

The Guardian. (2006, October 2). Accessed October 15, 2006, at *business.guardian.co.uk/story/0,,1885252,00.html.*

Her Majesty's Government. (1999). *Social trends.* Accessed August *, 2006, at *http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D3700.xls.*

Hunt, K. (2006). "Embedded Feminism" and that War on Terror. In K. Hunt & K. Rygiel (Eds.), *Gendering the War on Terror, war stories and camouflaged politics.* Aldershot: Ashgate.

Jarvis, H. (2005). *Work/life city limits: Comparative household perspectives.* Basingstoke, UK: Palgrave.

Kingsmill, D. (2001). *Kingsmill report on women's employment and pay.* London: Department of Trade and Industry, UK.

Law, R. (1999). Beyond 'women and transport': Towards new geographies of gender and daily mobility. *Progress in Human Geography, 23*(4), 567–588.

Lievesley, G. (2004). *The Cuban revolution: Past, present and future perspectives.* Basingstoke, UK: Palgrave.

Lievesley, G. (2006a). Women and the experience of citizenship. In S. Buckingham & G. Lievesley, *In the hands of women: Paradigms of citizenship.* Manchester, UK: Manchester University Press.

Lievesley, G. (2006b). Identity, gender and citizenship: Women in Latin America and Cuba. In S. Buckingham & G. Lievesley, *In the Hands of Women: Paradigms of citizenship.* Manchester, UK: Manchester University Press.

Lipietz, A. (1995). *Green hopes. The future of political ecology.* Cambridge, UK: Policy Press.

Lipietz, A. (2000). Political ecology and the future of Marxism. *Capitalism, Nature, Socialism, 11*(1), electronic version, unpaged.

Lister, R. (1997). *Citizenship: Feminist perspectives.* Basingstoke, UK: Palgrave.

MacGregor, S. (2006). No sustainability without justice: A feminist critique of environmental citizenship. In A. Dobson & D. Bell (Eds.), *Environmental citizenship.* Cambridge, MA: MIT Press.

Marston, S. (2000). The social construction of scale. *Progress in Human Geography, 24*(2), 219–242.

Mehdid, M. (1996). En-gendering the nation-state: Women, patriarchy and politics in Algeria. In S. M. Rai & G. Lievesley, *Women and the state: International perspectives.* London: Taylor & Francis.

Mellor, M. (1992). *Breaking the boundaries: Towards a feminist green socialism.* London: Virago.

Merchant, C. (1996). *Earthcare, women and the environment.* London: Routledge.

Mies, M., & Shiva, V. (1993). *Ecofeminism.* London: Zed Books.

National Anti-Hunger Organizations. (2004). *A Blueprint to End Hunger* (a working document based on the principles of the Millennium Declaration to End Hunger in America, issued by NAHO).

National Commission on Pay Equity. (2005) Accessed April 18, 2005, at *http://www.pay-equity.org/index.html.*

Nightingale, A. (2006). The nature of gender: Work, gender, and environment. *Environment and Planning D: Society and Space, 24,* 165–185.

Parry, V. (2004, November 3). Let's look at those tests again. *The Guardian.*

Rootes, C. (1999). Environmental movements: From the local to the global. *Environmental Politics, 8*(1), 1–12.

Seager, J. (1993). *Earth follies: Coming to feminist terms with the global environmental crisis* London: Routledge.

Staeheli, L. (1994). Empowering political struggle: Spaces and scales of resistance. *Political Geography, 13,* 387–391.

Swyngedouw, E., & Heynan, N. C. (2003). Urban political ecology: Justice and the politics of scale. *Antipode, 35*(5), 898–918.

United Nations Millennium Project. (2005). *Taking action: Achieving gender equality and empowering women.* Task Force on Education and Gender Equality. London: Earthscan.
Visvanathan, S. (1991). Mrs. Brundtland's disenchanted cosmos. *Alternatives, 16*(3), 377–384.
Wickramasinge, A. (1997). *Land and forestry: Women's local resource based occupations for survival in South Asia.* Peradinaya, Sri Lanka: Corrensa.
Women's Environmental Network. (1993). *Women's Environmental Network Campaigns: 5 Years of WEN.* London: Author.
Women and Equality Unit. (1998). *Gender impact assessment: A framework for gender mainstreaming.* Available at *http://www.womenandequalityunit.gov.uk.*
Women's Resource Centre. (2006). *Why women? The women's voluntary and community sector: Changing lives, changing communities, changing society.* London: Author.
World Bank. (2002). *Gender mainstreaming strategy paper.* Accessed October 23, 2006, at *http://www.worldbank.org/gender/overview/ssp/home/htm.*

CHAPTER 4

Containing the Contradictions of Rapid Development?

New Economy Spaces and Sustainable Urban Development

DAVID GIBBS
ROB KRUEGER

In recent years we have seen the emergence of two phenomena that indicate major shifts are under way in the organization of economies and societies: the development of a *new economy* and incipient efforts to promote *sustainable development.* The development of a *new economy* composed of high-technology sectors and knowledge-based "production," such as information and communication technologies and biotechnology and the so-called FIRE sector, which includes finance, insurance, and real estate, is both transforming production and consumption norms as well as altering relations among business organizations, individuals, and institutions (Storper, 1997; Scott, 1987; Porter, 1990; Ley, 1996; Thrift & Olds, 1996; Scott, 2000; Nevarez, 2003; Gleeson & Low, 2000). As with previous rounds of economic development, this new economy is concentrated into specific locales—in this case, into a number of city-regions. Indeed, a parallel set of arguments has emerged suggesting that such city-regions have become the locus of not only the new economy but also global economic growth (Herrshel &