ENVIROMENTAL JUSTICE
Distributing environmental quality

If enlightened self interest is the principle of all morality, man's private interest must be made to coincide with the interest of humanity. . . . If man is shaped by environment, his environment must be made human.
(Karl Marx and Friedrich Engels, 1845: 131, The Holy Family)

INTRODUCTION

In previous chapters we reviewed the major theories of justice and their conceptual elements. In this chapter we consider the meaning of justice for the distribution of environmental quality and risk. This distributive question is, of course, inescapably spatial, given both the materiality of nature and environmental diversity at local, regional and global scales. As will be explained, the rubric of 'environmental justice' has been inscribed in debates in the USA concerning fairness in the distribution of environmental wellbeing that have flourished in that country over the past decade. Our intention here is to assess environmental justice understood as a distributive precept against the different justice perspectives discussed in the preceding chapters: needs, rights, deserts, and political justice. We compare the work of those who have already discussed justice in the context of the environment with our own framework.

Making the environment 'human', as we shall see in Chapter 6, does not dispose of the question of ecological justice. A good environment for humans is not necessarily the same thing as a good environment for non-human nature. Yet Marx and Engels were referring to the evil of humanly created environments which were in every sense *inhumane*: the filth, squalor and overcrowding of the poor neighbourhoods of industrial cities. With both humans and non-human creatures, a humane environment is one in which their needs are met and in which they can optimally flourish.

Environmental quality is a central aspect of wellbeing for individuals and communities, and it is therefore a critical question for justice. Like any other dimension of wellbeing, environmental quality comprises both 'good' and 'bad' elements which are distributed across communities, nations and the globe. Obviously social values have an important role in determining both the nature of these distributions and our satisfaction with them. As we have already argued, the fact of divergent individual and communal values means that environmental justice cannot be seen as a simple, ahistorical ideal. Not only the quality of an environment, but the justice of its distribution may be evaluated in different ways.

So, we may have a land use for which there is an agreed level of social support, but whose physical proximity may actually reduce the environmental wellbeing of individuals. How, then, is the social and spatial distribution of such land uses to be agreed? Do all individuals and communities get a chance to express their values within decision-making frameworks that decide the distribution of environmental quality? Are there ways for the values of the lifeworld to enter the decision making system? What about the distribution of 'environmental goods' – those uses which are both socially valued and have the capacity to enhance individual wellbeing? In the absence of formal political mechanisms for ensuring fair allocations of 'good' and 'bad' land uses between individuals and communities, it appears that in western countries other social mechanisms, frequently centring on class and race relations, have acted as proxy distributors of environmental quality. We will examine in this chapter a variety of literature in the USA, Britain and Australia, which has shown how many local communities, often defined socially in terms of class or race, have accommodated an unfair share of environmentally injurious land uses.

Of course, as Ulrich Beck (1992; 1995) has shown us, the question of environmental 'quality' has increasingly dramatic implications in contemporary capitalist societies, and, for that matter, the globe. In the past, our political frameworks have valued the environment in instrumentally terms, as a resource to be exploited for the production of use values which can then be distributed amongst communities and within humanity in general. But we are well aware now of the inadequacy of this ethical viewpoint and the disastrous environmental consequences of the industrial transformation of nature over the past two centuries. Beck has explained how capitalist modernity and its Prometheus logic has produced potent industrial residuals which threaten human and non-human life at every geographical scale. This, in a sense, is our most dramatic injustice to non-human nature and the environment – the production of environmental risks which now imperil the globe and all life within it. Moreover, these new hazardous substances, and the land uses associated with their production, storage and destruction, must be allocated socially and geographically, adding a new urgency to struggles for fairness in the distribution of environmental goods and bads. The distribution of such 'unwanted land uses' can, of course, occur at a variety of scales: between communities, cities, regions and nations. Indeed, the increasingly effective hostility of local communities in western countries towards hazardous waste facilities has encouraged an international trade which has sought to dump dangerous
industrial by-products in developing nations. This ‘traffic in risk’ both imperils the wellbeing of the impoverished masses in developing countries, and also threatens to entrench the injustice of global uneven development.

This chapter is in two main parts. In the first we review the various theoretical and policy literatures which have addressed the distribution of environmental quality within western countries, notably the USA. The second part considers the environmental justice question at the supranational level, focusing on the international trade in risk and the implications of this for uneven development.

JUSTICE WITHIN NATIONAL ENVIRONMENTS

Both environmental quality and environmental values are distributed at a variety of spatial scales, ranging from the local–communal level, through regions and nation states, to the entire globe. These distributions, which are highly variegated in socio-cultural and spatial terms, interact to produce a diverse and shifting landscape of ecological politics. This fact confounds attempts to arrive at universal prescriptions of what is a fair distribution of environmental quality for any scale of analysis. This, then, also complicates the political task of allocating land uses and activities which impinge heavily on environmental quality.

However, like Beck (1995: 75–6), we are not prepared to endorse value relativism either as a virtue or as an inescapable fact in the ‘age of risk’. There are objective dangers arising from contemporary industrialism, in the form of toxic wastes and other hazards, which cannot be socially distributed merely through a system of culturally derived preferences. The danger is not just a matter of opinion. Too often cultural relativism is a mask for anti-democratic politics and even localised tyranny. Even where some form of democracy can be assumed for all social contexts, it is doubtful that all communities will possess ‘perfect information’ concerning the nature of the environmental risks they may be asked to carry in the form of hazardous land uses. As will be shown in this section, a collusion between markets and racially discriminatory anti-ecological local politics has produced a racialised pattern of risk in the United States, meaning that many urban coloured communities now bear a disproportionate share of the environmental risks that arise from that nation’s hazardous industries.

At present the regulation of the distribution of environmental quality falls on national governments, and their subsidiary (regional and local) states. In this section we will examine how the relationship between states, markets and local communities determines national distributions of environmental quality. This will clarify some of the institutional issues for the following section which considers environmental justice at the supranational level – an environmental policy arena marked by the absence of a regulatory state.

Socio-spatial justice

Geographers have become aware that justice must be realised (or violated) within concrete environmental settings. From the late 1960s, a range of social scientists, especially urban geographers, have applied justice-related concepts to the analysis of spatial patterns in western countries. Hay (1996) argues that the ethical notions of equity, fairness and justice have been used interchangeably by spatial social scientists as the evaluative bases for geographic measures of wellbeing. As Hay (1996) explains, other ethical concepts, notably procedural justice and desert, have proved harder to operationalise spatially. None the less it has been recognised by some geographers (e.g. Bloxley, 1985; 1989) that both spatial and temporal consistency in the application of the law are preconditions for juridical impartiality (the principle of the ‘rule of law’ elucidated, for example, by Hayek).

In the main, spatial social science has followed the utilitarian practice of measurement of distributional outcomes. Reflecting this substantive concern, the notion of ‘territorial justice’ emerged as one early socio-spatial measure of fairness (e.g. Davies, 1968; Harvey, 1973). Davies (1968: 39) defined territorial justice as: ‘an area distribution of provision of services such that each area’s standard is proportional to the total needs for the service of its population’. Although Johnston et al. (1994: 300) define geographical justice as ‘the empirical and theoretical study of the . . . fairness of the geographical apportionment of benefits’, it is true that much of the work undertaken beneath this rubric has focused on the distribution of publicly provided ‘goods’ (Boyne and Powell, 1991). The territorial justice principle was largely applied to analyses of the national and regional distributions of social services within western countries, notably the UK and the USA (e.g. Davies, 1968; Pinch, 1979; 1985; Curtis, 1985). For analyses of mainland Europe, see Mingione and Morlìcchio (1993) and Petmecky and Tsouloulias (1994). While this form of analysis was able to expose many discriminatory patterns of service provision, little attempt was made to relate such findings to the geographic distribution of social needs (Hay, 1996).

From the early 1970s, an important strand in geographical analysis measured spatial wellbeing as a person’s relative position in terms of both accessibility to valued public services and proximity to undesirable land uses (Dicken and Lloyd, 1981). By the 1980s a voluminous literature had developed describing the relationship between the residential structures of major western cities (including race and class characteristics) and patterns of accessibility to land uses, especially ‘salutary facilities’, which were held to be socially valued (see, for example, Knox, 1982; 1995). Similarly, other geographic analyses focused on the locational patterns of ‘noxious facilities’, those which generate negative externalities for surrounding communities. Interestingly, environmental ‘nuisances’ were defined broadly, including such diverse land uses as airports, polluting industrial plants, football
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stadiums and community facilities for deinstitutionalised people (Dicken and Lloyd, 1981; Dear and Taylor, 1982; Harvey, 1973). Harvey (1972: 27–38) argued that the environmental quality of any land use depends upon the potentially diverse ecological and social values of its 'host' community. But this relativist argument is problematic as we shall see.

The welfare geography of Smith (e.g. 1975; 1977; 1979) and Knox (e.g. 1975) extended the territorial justice notion to include the distribution of a broad range of benefits, including public services and a range of other social 'goods' and 'bads'. Smith's considerable empirical investigations of wellbeing in the USA, Britain and South Africa measured geographic variation on a range of composite social indicators. Significantly, these indicators included a number of environmental variables, such as air pollution (see Smith, 1975) and built-environment quality (see Smith, 1977). Although avowedly normative (like its disciplinary equivalent in economics), welfare geography was an essentially descriptive exercise which made scant reference to the sociostructural causes of spatial inequality. It thus had little explanatory power and limited policy salience. (This is to echo Young's, 1990, general criticisms of distributional justice.) None the less, by demonstrating the highly specialised distribution of social wellbeing, the welfare perspective foreshadowed the potential for a geographic analysis of environmental justice.

Other geographers, notably Badcock (e.g. 1984), Harvey (e.g. 1973; 1981; 1982; 1996) and Smith (e.g. 1984), sought to explain territorial injustice in capitalist societies through resort to political economy (especially Marxist social theory). The difficult ethical questions of justice were set aside in favour of structural explanations focusing mainly on unequal power. Harvey's earlier work helped establish a range of social scientific analyses which has sought to describe and explain the racial and class inequality in the distribution of wellbeing, most acutely represented in studies of the North American 'ghetto'. Both Badcock (1984) and Harvey (1973) have characterised the capitalist city as a 'resource distributing mechanism', highlighting how economic structures (e.g. relations of production) and institutionalised power (e.g. state forms) are inscribed in the urban form through differentiated patterns of wellbeing. The urban political economy approach demonstrated the capacity of the capitalist urban system to thwart the redistributive objectives desired by welfareist policy (Badcock, 1984). As a spatial concentration of market mechanisms and social power structures, the city was an unmistakable revelation of the tendency of capitalism to distribute socio-economic and environmental resources unevenly. Related analyses pointed to the ways in which social power was articulated in urban communal struggles over the distribution of environmental and economic resources (e.g. Janelle and Millward, 1976; Castells, 1979; Cox, 1973; 1979; Walker, 1981). Several commentators (e.g. Dear 1977; Johnston, 1984; Plotkin, 1987; Reynolds and Honey, 1978), for example, have observed how certain state institutional mechanisms, especially planning regulations, are used by the privileged classes to keep noxious land uses away from the places they occupy and concentrate such uses in poor and working-class neighbourhoods.

During the 1980s, the emphasis on justice in geography diminished as many critical analysts turned to socio-structural explanations of inequality, including variants of Marxism which were hostile to ethics (Johnston et al., 1994). (Pirie's (1983) thoughtful analysis attempted to apply a socio-spatial ontology to justice, but his project seems to have gone no further.) Other theoretical currents, notably post-modernism and neo-liberalism, also problematised universalistic ethical notions in the social sciences generally. By the 1990s, several geographers had begun to re-assert the importance of justice in socio-spatial analyses of wellbeing (Gleeson, 1996). Amongst these, Harvey (1992; 1993b; 1996) and Smith (1994) made notable interventions which sought to re-establish the importance of the justice principle in an academy increasingly dominated by relativist ethics. Both analyses have also pointed to the political saliency of justice in an era when market relations and neo-liberal politics dominate the globe. In a more recent development, a growing number of North American geographers (e.g. Lake, 1996; Lake and Disch, 1992; Pulido, 1994; 1996; Seager, 1993) have turned their attention to the issue of 'environmental justice' which has emerged from grassroots campaigns in the 1970s to now become a key focus of national political debates and federal policy in the USA (see, for example, the 1996 special 'environmental justice' issue of the journal Antipode 28(2) in 1996).

Environmental racism

A growing debate in the United States about environmental justice had its origins in the grassroots struggles of local communities during the 1970s against 'environmental racism' (Alston, 1990; Harvey, 1996; Sarokin and Schulpink, 1994). These struggles, involving both local communities of colour and a range of progressive groupings (notably churches and civil rights organisations), sought to oppose the racially discriminatory distribution of hazardous wastes and polluting industries in the United States. A range of minority groups were involved in these campaigns, including urban African-American and Latino communities and native American peoples residing on traditional lands (much of which had been poisoned by military and industrial uses). Importantly, this grassroots campaign emerged outside, even at times in opposition to, the mainstream of the environmental movement in the USA (Hofrichter, 1993). Activists pointed out that the environmental movement had concentrated on the ecological concerns of white, middle-class Americans, and had failed to identify and oppose the disproportionate burden of toxic contamination on minority communities. Hofrichter (1993: 2) attributes the toxic burden on communities of colour to the 'unregulated,
often racist, activities of major corporations who target them for high technology industries, incinerators and waste'.

A seminal moment in the environmental racism campaign was provided in 1982 by vigorous protests against the siting of a PCB landfill in a black community within Warren County, North Carolina (Cutter, 1995; Mohai and Bryant, 1992). The Warren County action saw prominent national civil rights leaders uniting with the local community in a campaign of civil disobedience (resulting in 500 arrests) reminiscent of the racial justice struggles of the 1960s (Goldman, 1996; Heiman, 1996). Shortly afterwards, a federal government study found evidence of racial discrimination in the location of commercial toxic waste landfills in one region of the USA (United States General Accounting Office (USGAO), 1985). Following this in 1987, the influential United Church of Christ (UCC) report on toxic waste patterns demonstrated that race was the central determining factor in the distribution of chemical hazard exposure in the United States (United Church of Christ Commission for Racial Justice, 1987). The findings of the landmark UCC report, were confirmed by later social scientific studies (e.g. Adesola, 1994; Bryant and Mohai, 1992; Bullard, 1990a; 1990b; 1992a; 1992b; Bullard and Wright, 1990; Mohai and Bryant, 1992), although in recent years a considerable number of analyses (e.g. Been, 1993; 1994; Boerner and Lambert, 1995) have also sought to 'debunk' the environmental racism thesis on methodological grounds. However, both Goldman (1996) and Heiman (1996) point out that many of these sceptical studies have been funded by risk-producing and waste-management industries.

By the early 1990s, several thousand groups had emerged to oppose inequitable distributions of land uses which threatened the environmental health of local communities (Bullard, 1993a,b,c). In many instances, community action was successful in either preventing the establishment of polluting facilities or ameliorating their effects through both voluntary and enforced agreements on site conditions. Also, the 1990s have seen the environmental racism movement re-focus its political-ethical ideals around the broader notion of 'environmental justice' (Cutter, 1995). In 1991, more than 650 activists from over 300 local grassroots groups attended the First National People of Colour Environmental Leadership Summit in Washington, DC (Goldman, 1996). The summit adopted seventeen principles of environmental justice which extend the movement's focus on race to include other concerns, such as class and non-human species (see Figure 5.1). Cutter (1995: 113) argues that the movement has now transcended, without abandoning, its concern with communities of colour to include others (regardless of race or ethnicity) who are deprived of their environmental rights, such as women, children and the poor – a definition endorsed by Hofrichter (1993).
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Environmental Justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.

Environmental Justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.

Environmental Justice opposes the destructive operations of multi-national corporations.

Environmental Justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.

Environmental Justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.

Environmental Justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reorient our lifestyles to ensure the health of the natural world for present and future generations.

Figure 5.1 Principles of environmental justice adopted by the First National People of Color Environmental Leadership Summit

The environmental justice movement

This broadening of political purpose described above has also extended the social and institutional reach of the environmental justice movement, which has 'moved from street-level protests to federal commissions, corporate strategies, and academic conferences' (Goldman, 1996: 131). Indeed, 'Environmental justice concerns are being institutionalized within government, academia and business, mediated in important ways by the press' (ibid.). Not surprisingly then, the emergent environmental justice movement attracted regional and national political attention during the late 1980s and early 1990s. Goldman reports that by 1996: 'Numerous federal, state, and local bills have been introduced to address various aspects of environmental injustice, addressing fair sitting, citizen participation, compensation, and health research' (1996: 127).

In 1992, the US Environmental Protection Agency established an Office of Environmental Equity and published a report on the national distribution of ecological risks (USEPA, 1992). The movement's official recognition reached its zenith in February, 1994, when President Clinton signed Executive Order 12898, which required that every federal agency consider the effects of its own policies and programmes on the health and environmental wellbeing of minority communities (Cutter, 1995; Goldman, 1996).

To date the achievements of the federal environmental justice programme have been modest, but certainly worthwhile, including remediation works at a number of contaminated sites, the improvement of some community health services, the funding of education and training campaigns in hazard awareness and monitoring, and the targeting of minority business enterprises in the awarding of EPA contracts (USEPA, 1995).

Despite its institutional successes, there are growing indications that the environmental justice movement may have reached its political high tide mark, at least for the foreseeable future. Goldman (1996: 126) argues that the movement 'may be entering the most difficult phase of its early history' as political opposition to environmentalism strengthens in the federal and state legislatures. The so-called 'Wise Use' campaign has united many industry and resource user groups who argue that US environmental standards and regulations are too stringent and represent an 'unjust' circumscription of private property rights (Helvarg, 1994; Harvey, 1996). The Wise Use lobby have been successful in shaping the environmental and resource policies of the Republican Party which now controls Capitol Hill and many state legislatures (Helvarg, 1995). Generally speaking, the contemporary Republican political agenda calls for reductions to both funding and programmatic support for a range of state functions (Gillespie and Schellhas, 1994). Critically, these targeted functions include affirmative action programmes, redistributive social policies and environmental regulation, all key public policy elements for the environmental justice movement (Goldman, 1996; Heiman, 1996; Hofrichter, 1993; Sarokin and Schulkin, 1994). During 1994-5, the reality of the Wise Use threat to environmental justice was underscored when the Republican Party proposed radical funding cuts to the federal EPA. Green lobbyists and most Democrats countered that these cuts, if realised, would undermine the principal federal institutional base of the environmental justice movement.

A further threat has emerged in the form of industry-sponsored research and legal manoeuvres which have sought to oppose the claims and activities of the environmental justice movement. As Goldman (1996: 132) notes, polluting industries and their allies in waste management have engaged a range of 'expert' commentators in order to deflect the political arguments of environmental justice activists with legal and scientific complexities: 'Now the academic guns have been loaded to defend the turf of expertise, raise the threshold of entry into the debate, and ensure that the burden of proof remains squarely on the backs of the victims of pollution.' Here we have a struggle to contain the impact of lifeworld values and contain the environmental problematic within the administrative state and its professional ancillaries.

The environmental justice movement also faces a number of internally generated challenges and threats. There is a need for the movement to better define its politico-ethical purpose: many commentators and activists now argue that it established focus on the distribution of environmental well-
being has actually entrenched the political power of polluting industry and waste management corporations. As both Heiman (1996) and Curzer (1995) have noted, the movement has tended to pursue ‘environmental equity’, meaning the equitable distribution of negative externalities. Heiman argues that the realisation of this political goal will hardly trouble polluting industry, which, after adjusting its locational prerogatives, will resume its risk generating production, only with the EPA assurance of fair equality of opportunity to pollute and be polluted (Heiman, 1996: 114).

Overlaying the two Rawlsian principles of fair equality of opportunity and the difference principle on an existing production system is going to change little. Rawls might say that ‘pollution should be distributed in such a way that it is of greatest benefit to the least advantaged’. However, if we were to apply a Rawlsian approach, which included both distribution and production in a single calculus, the outcome might be different. Suppose that the producers and recipients of risk were to sit down together to decide on the production of LULUs (locally unwanted land uses) – a discursive design might, in fact, produce just such a situation. Applying a moderate veil of uncertainty, if not ignorance, the decision makers would not know about the location of the LULU whose production was being decided upon or the risks attached to it (as not altogether unlikely scenario given today’s scepticism about scientific knowledge). Let us suppose that the LULU is, for example, a chemical plant. Might it not be that the decision makers would weigh seriously the option of doing without the LULU? The argument becomes one about ‘odds’ and the propensity of the decision makers to gamble with their backyards and their lives. Rawls might object that the veil of ignorance is meant to apply only to the basic structure of society. A Kantian would say, however, that the contract is meant as a daily reminder to decision makers of their obligation to make only laws that can apply equally to all. Both a Rawlsian and Kantian argument could be employed within a discursive design to insist, on grounds of justice, that producers not only ‘pay’ but also suffer the risk of the hazards they cause through production.

The environmental equity approach has been reflected in variants of ‘green’ legal philosophy which have stressed the importance of procedural fairness to the resolution of ecological conflicts and the achievement of social harmony (e.g., Hoban and Brooks, 1987; Mandelker, 1981). Hoban and Brooks (1987: 219), for example, insist that ‘the equitable application of law and legal principles to . . . environmental problems is the one indispensable requirement if we are to clean up our environment and arrive at an environmentally just society’ (emphasis added). Lake (1996) and Heiman (1996: 116), however, oppose the ‘environmental equity’ ideal, both for its naive faith in procedural justice in social conflict settings and the inability of distributional notions of fairness to problematise the structural and institutional sources of injustice (cf. Young, 1992; Harvey, 1996). Heiman (1996: 114) proposes that: ‘environmental justice demands more than mere exposure equity . . . it must incorporate democratic participation in the production decision itself’. In this he is approaching something closer to Dryzek’s ‘discursive designs’. Indeed Dryzek (1994: 194) applauds the expansion of discursive democratisation within the economic sphere: ‘economic organization should fall under discursively democratic political control’. As we argued earlier, democratisation of the corporation is necessary to reconnect the corporation to the spatial reality of the real world – ‘real as opposed to the virtual environment to which corporations increasingly retreat.

Heiman (1996: 119) further elaborates the environmental justice ideal as centring on ‘community empowerment and access to the resources necessary for an active role in decisions affecting people’s lives’. In Chapter 3 we saw that ‘need’ has been defined in just this way. The idea of empowerment derives its moral force ultimately from the Kantian idea of the person, and therefore the right to autonomy, which informs conceptions of rights and needs and the virtue of citizenship (see Doyal and Gough, 1991; Bookchin, 1990; 1995a).

An additional internal problem for the environmental movement exists in the very scale of its considerable political success to date. The vast sociopolitical reach of the contemporary movement is evidenced by the profusion of grassroots activist groups and information dissemination networks (including a well-supported Internet website, ‘EcNet’). However, without a clear-sighted understanding of the meanings of ‘justice’ there is a danger that the ‘mainstreaming’ of opposition to environmental risks will further worsen racial and class disparities. To adapt Marx’s observation, where rights conflict as they inevitably do, power can all too easily decide:

As more communities try to block sites and prevent pollution in their backyards, those with the least political and economic power will be left with an even greater share of the toxic residues from our modern society. . . . As manufacturers downsize and consolidate their facilities, the plants posing the greatest potential hazards are likely to be left in communities that fit a particular demographic profile.

(Goldman, 1996: 128)

At present, the environmental justice policy landscape seems dominated by debates over the ‘fair share’ allocation of LULUs among communities, variously defined. It seems that the environmental justice movement is in danger of being overtaken by the increasingly general awareness of, and antipathy for, hazard-producing land uses amongst the broader population, drawing the movement’s critical energies into the quicksand of distributional politics. The answer, however, lies not in avoiding the question of conflicting values but resisting the discursive struggle from the distributional periphery to the production centre, and from the local to the transnational scale. In the next sub-section we explore the potential difficulties posed by this present
'environmental equity' policy focus, both for disadvantaged communities and the broader environmental justice movement itself.

**DISTRIBUTIONAL POLITICS – UTILITARIAN SOLUTIONS**

A critical thread of the rising popular environmental consciousness in the USA has been the growing awareness of the health risks posed by hazardous industries and waste management activities. Since the 1970s, there has been increasing opposition across most local and regional jurisdictions towards the establishment, and continued operation, of polluting and waste management activities (LULUs). The acronym 'NIMBY' (Not-In-My-Backyard) has been coined to describe popular antipathy for residential proximity to LULUs (Dear, 1992; Popper, 1981). The US planning and environmental policy realms have thus for some time now been overshadowed, even in some parts momentarily paralysed, by the LULU problem (Popper, 1981, 1992), which is seen in technocratic terms as an attitudinal paradox between social support for polluting industries (and their products) and local hostility towards land uses which host such activities (Dear, 1992). 'Social support', it should be noted, tends to be deduced from the absence of alternatives. No one has actually bothered to test what the public wants in the light of debate and full consideration of cost options. The issue has been particularly acute within urban and regional planning frameworks, given that many local communities have successfully used zoning ordinances to exclude LULUs from their political jurisdictions.

Interestingly, the category 'LULU' includes not only industrial activities, but also residential land uses for 'socially undesirable' people, such as homes for ex-prisoners, deinstitutionalised mental patients, people with AIDS and the like (Dear, 1992; Gileson and Memon, 1994). Everywhere it seems that residential communities are fearing the 'contaminating touch' of land uses which produce unpleasant and risky side effects, be they chemical poisoning, nuclear radiation, physical assault or just the distasteful sight of modernity's human refuse loitering on street corners and in neighbourhood parks.

Technocrats have decried the proliferation of NIMBY opposition as a threat to US industrial and infrastructure development, which ultimately imperils national wellbeing. One can understand the frustrations of technocrats and industrialists, summarised thus: 'Our fickle people want the goods we make, the comforts we supply, but refuse to acknowledge that these things must be produced somewhere!' Moreover, they complain, if new industries can't be established, jobs will be lost to overseas competitors and economic wellbeing will decline, especially for the industrial classes; if waste management and destruction facilities cannot be sited, then the orderly control of industrial residues – the ever-growing lake of toxic contaminants, the continually rising mountain of waste materials – will break down and national health will be jeopardised. Even Vice-President Gore has been moved to observe on the NIMBY problem:

'I have always been struck by the way a proposal for an incinerator or a landfill mobilizes a lot of people who do not want the offending entity near them. In the midst of such a controversy, no one seems to care much about the economy or the unemployment rate; the only thing that matters is protecting their backyard.'

(Gore, 1993: 355)

Thus, an ever-expanding scientific and policy literature has proliferated to advise governments and corporations on devising new locational strategies which will both identify the safest (and acceptably efficient) locations for LULUs, while allaying community concerns through the latest, most sensitive consultation methods (e.g. Carver and Openshaw, 1992; Gregg et al., 1988; Lober, 1995; Massam, 1980, 1993). Thus, technocratic utilitarianism is becoming allied (in a highly contradictory relationship) with discursive design. The erroneous assumption is that there is a single welfare function which can be found with the use of technology and the right kind of discourse (e.g. geographical information systems (GISs), which aim to derive optimal site choices for LULUs aided by participation 'techniques').

Parallel to this literature, though emerging from more humane, liberal instincts, has been a set of policy-scientific discourses which have argued for 'fair share' distributions of LULUs across local and regional jurisdictions (e.g. Dear et al., 1994). These discourses have noted the already inequitable geographical distribution of LULUS from the racist locational patterns of polluting industry to the ghettisation of facilities for 'social outcasts', usually in poor inner-city neighbourhoods – and have thus argued for corrective policy mechanisms, usually in the form of planning controls, which will ensure a more uniform sharing of the LULU burden. It is not difficult to see how the equity focus pursued by environmental justice activists has been submerged under a rising political tide favouring fair-share zoning and equitable corporate siting policies.

In some instances fair share policies have actually become law. In 1991, for example, the City of New York introduced 'fair share criteria' into planning regulations in an 'attempt to foster an equitable distribution of public facilities throughout the city' (New York Department of City Planning, 1991: 1). Most private agencies, however, were not bound by the criteria, which, in any case, used 'exhortatory, rather than mandatory, rules' to achieve their objectives (Valetta, 1993: 20). A 1993 review of New York's fair share criteria found that public agencies had not administered the new system effectively, and that local communities were still excluded from many critical facility location decisions (Manhattan Borough Board, 1993; see also Rose, 1993). Recently, the US Supreme Court ruled that planning regulations could not be used to exclude group homes for disabled people.
distribution of utility can subsequently be achieved through compensating monetary transfers. On the face of it, the auction model seems to recommend itself on the grounds of efficiency and equity. Or does it?

Gleeson (1995) has raised a number of specific objections to the various utilitarian models of LULU allocation, most of which rely on some form of compensation as a means of achieving ex post distributional equity between communities. Certainly the specious utilitarian assumption that different aspects of wellbeing, notably environmental health and economic security, can be first measured and then made commensurable through the medium of money ignores the kind of critique advanced by Self (1970), Rawls (1982), Elster (1982) and Jacobs (1991), as discussed in Chapter 4, that preferences are conditioned by social contexts and contexts are infused with unequal power. Monetisation of risk allows structural inequalities to be exploited by risk producers. Bullard (1992a) has termed this form of exploitation ‘environmental blackmail’, meaning the political-economic pressure to host a polluting industry which is frequently applied by firms and governments to poor and coloured communities in the United States. The price extracted, literally some quantum of public health, is hardly commensurable with the rewards of some measure of ‘growth’ (meaning business activity) in the long run. Even if monetisation made sense (which it does not) the fair price, all things being equal (which they are not), would be that which it would take to make the residents of the community freely move away from the source of pollution. That would be the fair price of the social and physical environment to those residents (assuming that the environment is much more than the sum of a few plots of land). Since this never happens, it is also important to note that compensation is frequently a one-off event which does not compensate succeeding inhabitants of communities which accept LULUs in return for monetary (or other) rewards. Compensation may therefore entrench intergenerational inequity.

There are many other dangers in the utilitarian solution to the LULU problem. It certainly encourages LULU operators to target communities which are vulnerable to compensation, namely, in the USA, those poor and coloured neighbourhoods which already host a disproportionate burden of risk-producing activities. The strategy thus threatens to further ghettoise the geographic and social distribution of risk, raising the spectres of cumulative impacts and the environmental ‘death’ of places and regions. Moreover, the utilitarian view rests on the neo-classical idea of perfect information as the basis for fair and efficient exchanges: one may debate whether such a precondition is ever a feature of human reality, but it certainly does not apply in the complex socio-political contexts where LULU decisions are made (and sometimes imposed through various means). The popular understanding of industrial risks may be rising, but it is yet to converge with science’s partial and hardly uniform opinions on the nature of hazards. Moreover, popular understanding of risks differs greatly between individual
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communities, and especially among the social classes with their varying access to scientific knowledge and official information. Heiman (1996) and Goldman (1996) argue, for example, that the environmental justice movement may well awaken the 'risk consciousness' of the middle classes, thus enhancing the power of wealthier communities to prevent the redistribution of LULUs into their jurisdictions.

The utilitarian approach has encouraged a 'consensual community' view in public planning and environmental policy realms in the United States. Critically, there is no appreciation of social power, and the asymmetries which derive from class, race and gender differences. Thus, the critical notion of 'community' is a conceptual cipher in the utilitarian scheme, which assumes that all social units, however defined, are politically and culturally cohesive bodies which can articulate the sum of their constituents' individual desires and needs as a univocal expression. The aggregate of individual preferences achievable in a market is thus confused with social and political consensus — the market-aggregate expedient with political principle. It seems hardly necessary to point out just how far removed such an assumption is from human reality without turning back the sociological clock to the 1960s when a range of theorists opposed the banalities of consensual social theories such as Parsonsian structural-functionalism (see Jary and Jary, 1991).

Bullard (1993c) has described the pressure which waste corporations in North America have placed on Native American communities to accept toxic landfills on their lands in return for compensation. It is not difficult to imagine the allure which financial compensation must hold for indigenous leaders aware of their people's desperate need for economic security. Indeed, Cutter (1995) reports a recent example where the Apache nation sought the establishment of a private nuclear waste facility on its territory in New Mexico in return for monetary compensation. But what power do indigenous leaders wield in the decision-making processes which lead to such results? And what is the potential for other viewpoints to emerge from within such communities where the awareness of industrial risks may be greatest among younger, or otherwise less influential, members? Is it reasonable for indigenous or other minority groups to expose themselves to risk in return for money? What of indigenous ecological rationality, with its much-cherished (by many Greens) insistence on the intrinsic value of nature? This issue exposes the dangers of value relativism that we earlier warned of. Relativism is encouraged by communitarian perspectives that eschew any consideration of how power is distributed within cultural groups.

We share Harvey's (1996) view that the problem of economic insecurity should first be solved for minority groups as a means for avoiding such dilemmas. The seemingly cavalier predilection of some North American indigenous communities for waste facilities must be understood as the product of a decision framework which Heiman (1996: 119) describes as 'the forced fight between jobs and environment'. We say that no minority community should be forced through structural underdevelopment into such invidious decision scenarios where leaders are encouraged to trade their people's environmental health in return for basic material security.

Finally, the utilitarian approach has a much more insidious, systemic consequence in that it depoliticises the production of risk by focusing social attention on distributional issues (i.e. optimal siting patterns for LULUs), which are then handed over to the administrative state. The approach undermines the critical and reflexive potential of the environmental movement, reducing 'fairness' to a question of geographical (or social) equity in allocation of risks. In short, the entire question of industrial risk is reduced to a locational problem, a dilemma over the siting of waste output, which the state must arbitrate as an interest group conflict (Lake and Disch, 1992). In this sense utilitarian solutions to the LULU problem defend what Beck (1995) has termed the 'organised irresponsibility' both of industrial capital, and of the technological bureaucracy that is meant to monitor and control its activities (Heiman, 1996: 120).

The conceptual problems with the utilitarian approach discussed above are beginning to reveal themselves in political practice in North America and Europe whose political landscapes are becoming largely, if not yet universally, frictional for the developers and operators of risk-producing land uses. Clark and Smith have described this dilemma of universal resistance for the waste management industry in the developed world:

The days are gone when both local publics and governments alike would tolerate waste disposal within their respective boundaries, especially if that waste is being imported from outside the region or locality. The body politic has become more educated as to the dangers inherent in such activities and has ensured that the disposal of waste is no longer a simple matter of finding a suitable hole in the ground.

(Clarke and Smith, 1992: 2)

Vexed industrialists and state technocrats now characterise the ever extensive hostility towards LULUs as 'NIABY' (Not-In-Anyone's-Backyard) (Heiman, 1996), or even 'NOPE' (Not-On-Planet-Earth). What are the consequences of this increasingly pervasive opposition to LULUs for the risk society? First we must ask 'which risk society?' because the growing resistance of local communities towards LULUs has not cohered - at least not yet - as a political movement which can transform the hazardous nature of industrial production itself. Firms are still relatively free to produce, only now they must find new places, outside 'the nation of NIMBYism', in which to do this. As Goldman observes, the increasingly pervasive and potent mood of NIMBYism across the United States has meant that, 'corporations are even more likely to move the most noxious plants to less developed countries, where even poorer communities of color will be the hosts.' (1996:
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States and environmental justice

There is an implicit assumption in most of the debates on justice in the environment that the existing political system can in fact deliver it. Largely absent is the question of the justice of the political system itself. In fact the global political system, composed of competing nation states, may be unfitted for the task of guaranteeing environmental justice. This question, as we saw in the last chapter, is an increasingly important one in philosophical discussions of justice. It is also highly salient in the debate on justice to the environment, justice to nature, which we consider in the next two chapters.

Both trade liberalisation and economic globalisation have allowed firms greater discretion in deciding where to locate their production activities and in what places to dump the wastes which arise from these. In particular, both the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA) have undermined the capacity of individual states to regulate trade for environmental ends. This fact was underlined in 1991 when a GATT dispute settlement panel (a 'discursive design' of sorts) used the agreement's 'trade disciplines' to rule that a prohibition on tuna imports by the United States government was inconsistent with the GATT. The prohibition had an explicit environmental objective — to stop the import of tuna caught with purse-seine nets. These devices, sometimes referred to as 'driftnets', tend also to ensnare and kill dolphins at prodigious rates (see Horwitz, 1993; Magraw, 1994). None the less, the regulation was ruled to contradict the GATT's central aim of liberalising world trade. (The action against the U.S. restrictions was brought to the World Trade Organization by the Mexican government. Mexican fisheries use driftnets and the state was understandably anxious about the US measure's effect on export income.) As Magraw (1994) points out, GATT does not even contain the word environment, and its ruling panels are not required in their deliberations to take account of environmental conventions outside GATT and customary international law. Environmentalists fear, therefore, that GATT and other trade liberalisation agreements, will be used both to dilute environmental regulations in developed countries and to encourage ecologically destructive economic activities in the developing world (Kelsey, 1995; Pulido, 1996). Disputation under GATT has already highlighted the agreement's potential to undermine environmental regulations in developed nations. Note that, to 1994, the United States has been the plaintiff or defendant in every GATT environmental dispute (Charnovitz, 1994).

The competition between states for productive investment within the new globalised economy is, of course, marked by the structural differences between developed and developing countries (and we include many of the former Soviet Bloc states in the latter). We have seen that current measures of investment (by GDP) do not provide a measure of the value of that investment. However, deceived by the allure of GDP growth (as currently measured) and impelled by greater socio-economic need, the developing countries have proved far more willing than western nations to accept risk-producing investment, in the form of hazardous industries and imported wastes. The weak and poorly resourced environmental regimes of many developing nations reflect this prioritising of economic security over ecological quality. This structural difference of economic needs and government regulation between the developed and developing worlds, and the absence of any supra-national body to ensure a consistency in environmental standards, has encouraged western industrial capital to shift unpopular and increasingly illegal hazard-producing activities and wastes across national boundaries to states which often define, and welcome, these transfers as 'investment'. We refer to this phenomenon as the 'traffic in risk'.

The traffic in risk

A broad tradition of social scientific analysis has examined the significant growth of investment by western industrial capital in developing countries which has occurred since the Second World War. Many of these analyses have emphasised the relative cost advantages (notably, the cheap supplies of labour power and raw materials) of developing countries for firms eager to escape the perceived disadvantages of developed industrial regions in the west (especially, labour militancy, low productivity and high wages; see, for example, Massey, 1984). Fagan and Webber (1994) point to other motivations behind the shift in western industrial investment patterns, especially after 1970. Their analysis stresses that much of the investment undertaken by multinational capital, transnational corporations (TNCs), outside the developed 'core' states 'was designed to serve the growing domestic markets in [developing countries] rather than for export' (Fagan and Webber, 1994: 37).

As Smith (1984; 1994) and others have argued, this post-war shift is part of an established historical pattern involving the 'see-sawing' of productive investment between declining and emergent regions and states, which has been a key feature of industrial capitalism since its genesis in the eighteenth century. The importance of this analysis is that it shows that, rather than
being a system tending towards equilibrium, as utilitarian economists generally assume, capitalism depends at core on the maintenance of what complexity theorists term a ‘far-from-equilibrium’ condition or, in Marxist terms, ‘uneven development’ (Anderson et al., 1988; Brian, 1990; Smith, 1994: 649–50; Fagan and Webber, 1994).

Environmental risk – the threat to human health and ecological well-being posed by industrial capitalism – is a critical dimension of this process of uneven development. Environmental consciousness grew in the nineteenth century, following prolonged industrialisation. A series of movements amongst and between middle and working classes demanded the improvement of sanitary conditions, housing and general amenity in British cities. In the twentieth century, this critical consciousness has deepened and generalised within advanced capitalist nations, finding political expression in the form of increasingly elaborate regimes of state environmental regulation. Thus, ecological consciousness, Beck (1992; 1995) argues, emerges as a social contradiction within capitalism (cf. Fagan and Webber, 1994: 35). Yet, as he acknowledges, the (as yet incomplete) age of reflexive modernity is itself developing unevenly, being largely confined thus far to the advanced capitalist nations which have experienced long periods of industrial capitalism. This uneven development of socio-political resistance to risk among nations further explains the relocation of industrial production from developed to developing regions and countries in the post-war period.

The perceived ecological ‘over-development’ of the west is intensifying, witnessed in the increasingly pervasive hostility of local communities in advanced capitalist nations towards risk-producing land uses discussed above (see Kemp, 1990; Smith and Blowers, 1992; Johnsen, 1992; McDonell, 1991; Szabo, 1993; Greenpeace New Zealand, 1994). The dilemma of the disposal of the Brent Spar oil rig (discussed in Chapter 1) is a case in point. Given these centrifugal social and regulatory pressures, it should be no surprise that environmental organisations are reporting a flourishing trade in toxic wastes, exported mainly from developed countries to developing nations. Disturbingly, this traffic in risk involves both western waste-producing firms and western governments, the latter seeking to dispose of hazardous industrial residues which their own regulations and polities will no longer accept (Smith and Blowers, 1992).

Pulido (1996) has observed that the political successes of the environmental movement in developed countries may actually accelerate the relocation of hazardous industries to developing nations. Environmental regulations are increasingly cited by US firms as a reason for their flight to more ‘business friendly’ countries, such as Mexico. The profits from industrial plants, as well as their products, are largely exported to the country of the operating firm. The developing nation which hosts the facility retains a quantum of wage and land rent income, but incurs some input expenditure and the risks and consequences which attach to the hazardous industry. A critical aspect of this system of flows, involving the circulation of money, products and risk, is the fact that it permits developed countries to externalise industrial risks by moving hazardous forms of production beyond their borders. In such instances, firms enhance their profits through the imposition of ‘cross-border externalities’, given that the nations which host hazardous production may never be fully compensated for the spillover effects of these activities (i.e. environmental degradation, social dislocation).

Seen more broadly, the traffic in risk, particularly the transfer of hazards from developed to developing nations, involves more than simply the export of toxic wastes. The entire capitalist commodity system is infused with risk. At all points of production, circulation and consumption there are hazards for human beings which have a variety of sources, ranging from the production and use of dangerous substances, hazardous forms of packaging and distribution and finally, the risks which attach to the consumption of frequently despooled or faulty commodities.

Within this ‘continuum’ of risk there are, however, two areas of extreme potential hazard which emerge from separate ‘moments’ of the production process. First, the process of production itself can pose a risk to workers and surrounding communities, perhaps best exemplified in the examples of a nuclear power station or a chemicals plant. Even a minor technological malfunction or process mishap can have grave consequences both for humans and the environment in their proximity. Second, there are the risks which emerge ‘downstream’ in the production process, in the form of residuals which may threaten human and environmental wellbeing. These toxic wastes may accumulate at the point of production or, as is generally required in developed countries, they may be removed to some other site for further processing, storage or disposal. This is not to mention the enormous quantities of hazardous wastes which are daily illegally disposed of, frequently dumped in public domains, such as waterways, landfills, sewerage and drainage systems, and in the countryside. The transfer of such toxic residuals from the point of production has thus generated an entire set of hazardous land uses, including waste transport systems, storage warehouses, landfills and incinerators.

The attraction for firms of the developed world is the chance to expand their aggregate output (and thus profit) by operating autonomous plants within national settings characterised by low production costs and large, growing markets. It must be noted that foreign operated plants are often built to higher safety standards than locally owned equivalents, as Hazarika (1987: 22) observes, the worst environmental offenders in developing countries tend to be ‘government factories, local private industry and illegal manufacturing units’, rather than the plants operated by TNCs. None the less, it is a fact that western TNCs frequently operate industrial facilities in developing countries which are characterised by lower safety standards than those achieved at their own equivalent plants in the developed world. At
Hazardous production and the developing world: the case of Bhopal

In the late 1960s scientists, agricultural businesses and national governments across the globe hailed the arrival of the 'Green Revolution', a radical improvement in crop productivity which would close the Malthusian gap between population growth and food output. The 'Green Revolution' described a radical increase in agricultural productivity that could be achieved through the use of new, high-yielding cereal varieties, fertilisers and pesticides, in concert with specific farming practices (notably, the use of controlled irrigation) (Jones et al., 1990). Not surprisingly, these radical agricultural innovations were greeted with much enthusiasm by states of the developing world. The Indian government was a particular champion of the new agricultural technologies, believing that their use would allow the country to achieve self-sufficiency in cereal production (a goal that was in fact realised). By encouraging the expansion of domestic cereal production, the state hoped to reduce both the incidence of famine and the balance of trade deficit.

For the self-sufficiency goal to be attained it was, of course, critical to produce locally as much of the new agricultural technology as possible. It was with this consideration in mind, therefore, that the Indian government in 1969 allowed – indeed encouraged – the US-based TNC, Union Carbide, to establish a small pesticide production factory in Bhopal, the capital city of Madhya Pradesh, one of the country's largest and poorest states (Weir, 1987). The plant was operated by a subsidiary of Union Carbide, Union Carbide India Ltd (UCIL). By the early 1980s, the plant was manufacturing and using highly toxic chemicals, among them methyl isocyanate (MIC), a highly unstable and deadly compound, to produce pesticides such as Sevin and Temik. All the pesticides produced at the UCIL plant were sold in the Indian market.

Shortly past midnight on 3 December 1984, a technical mishap at the UCIL plant caused a large mass, perhaps, as much as 40 tonnes, of MIC to escape from a storage tank into the cool air of the winter night. Soon, a yellowish-white fog began to blanket the sleeping city of 800,000 people (Weir, 1987). The deadly mist quickly settled over the city's crowded slums and squatter colonies, several of which adjoined the UCIL plant (Shrivastava, 1992). Weir recalls the night of terror which followed:

Hundreds of thousands of residents were rousted from their sleep, coughing and vomiting and wheezing. Their eyes burned and watered: many would soon be at least temporarily blinded. Most of those fortunate enough to have lived on upper floors or inside well-sealed buildings were spared. The rest, however, opened their doors onto the largest unplanned human exodus of the industrial age. Those able to board a bicycle, moped, bullock cart, bus, or vehicle of any kind did. But for most of the poor, their feet were the only form of transport available. Many dropped along the way, gasping for breath, choking on their own vomit and, finally drowning in their own fluids. Families were separated; whole groups were wiped out at a time. Those strong enough to keep going ran 3, 6, up to 12 miles before they stopped. Most ran until they dropped.

(Weir, 1987: 16 and 17)

By morning it was obvious that the worst industrial accident in history had taken place at Bhopal. A conservative estimate of the human toll one week after the accident included nearly 3,000 dead, 7,000 severely injured, and more than 300,000 others affected by exposure to the deadly mist – some 2,000 animals also perished (Shrivastava, 1992). Pearce and Tombs (1993) put the numbers of permanently disabled at 20,000 (many of these 'disabilities' included horrific disfigurations and painful impairments) while as many as 10,000 people may have died as a direct result of the tragedy. And the suffering continues to the present day. People continue to succumb to maladies which are attributed to the Bhopal disaster. Pearce and Tombs cite one study which has demonstrated that 'of 2700 pregnancies in Bhopal in the year following the disaster, 452 ended in abortion or stillbirth, 132 died soon after birth and 30 were malformed' (1993: 192).

Who was to blame for the chemical holocaust at Bhopal? The UCIL plant's safety standards did not match those in Union Carbide's otherwise similar pesticides manufacturing facility in West Virginia. As Weir explains:

Although... safety systems are automated with a state-of-the-art computer system at Union Carbide's plant in Institute, West Virginia, which also uses MIC in the production of Sevin and other... pesticides, many of the controls at the Bhopal plant were manually operated. Critics charge that this represented a 'double standard', a characterisation Union Carbide denies. The company says it has specified the design standards for the Bhopal factory, but the actual construction was done by its Indian subsidiary, UCIL, which used local equipment and material. Industry publications say that the Indian government required manual controls wherever possible (1987: 33). Moreover, Union Carbide's chairman at the time of the disaster, Warren Anderson, admitted in March 1985 'that the doomed plant had violated company standards and operated in a way that would not have been tolerated in the United States'.

(Weir, 1987: 59)
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Some Union Carbide officials have claimed that sabotage may have been involved in the disaster, though this claim is widely disputed (Pearce and Tombs, 1993). In addition, a combination of sloppy maintenance procedures and several critical design defects had, by 1984, rendered the plant a hazardous time bomb ready to be triggered by malfunction, sabotage or natural disaster (see Banerjee, 1986 on this). In 1982, an investigative team from Union Carbide’s US headquarters identified 61 hazards in the plant, 30 of them considered to be major, but the company seems to have ignored this warning (Pearce and Tombs, 1993). Bogard (1989) also highlights the laxity of the safety procedures which Union Carbide had set in place in order to warn the communities surrounding the plant of any accident. For their part, authorities from the state of Madhya Pradesh also ignored repeated warnings from an investigative journalist, Raj Kumar Keswani, about the hazardous nature of the UCIL plant.

Regardless of what or who actually triggered the chain of events which culminated in the release of the MIC cloud over Bhopal, Union Carbide, and to some extent, the Government of India, must take responsibility for the tragedy. Bogard lays the blame for the disaster at the feet of the plant’s owners and Indian officials: Union Carbide itself was responsible, the government of India was responsible, a technocratic class that predictably elects profitable, low-cost, high-tech answers for human misery was responsible. Theirs is a responsibility grounded on intentional ignorance, deliberate omission, and misguided optimism’ (1989: xi). Thus, as Beck (1995) explains, industrial capital, state risk-management bureaucracies, and national legal systems collude in the systematic production of risk landscapes. Moreover, Beck’s thesis on the difficulties in attributing responsibility for ecological catastrophes, given that most national legal systems institutionalise ‘organised non-liability’ for risk, is given support by the compensation settlement reached between Union Carbide and the Indian government.

Originally, the Indian government sought $US3.3 billion from Union Carbide as settlement for the physical damages and human suffering it had caused at Bhopal. As Pearce and Tombs (1993) explain, this figure was anything but excessive when considered alongside the damage claims sought in other recent large-class actions against TNCs and other industrial conglomerates (e.g. the $US2.5 billion received by the 195,000 victims of A.H. Robbins’s Dalkon Shield). In February, 1989, the Indian government, acting on behalf of the Bhopal victims, settled out of court with Union Carbide for $US470 million. The problems with existing procedures in international law have already been discussed in relation to the Ok Tedi dispute (Chapter 1). By settling the matter out of court, Union Carbide avoided establishing any damaging legal precedent or liability. It should be noted that Union Carbide was earlier successful in having the case tried in India, rather than in its home country, no doubt fearing the proclivity of the US courts to award large, punitive settlements against corporations which had grossly offended against the public interest. For the US courts, it was by no means straightforward where and how a transnational corporation should be tried for environmental offences. Indeed, as the Indian government argued when seeking to have the Bhopal case heard in a US court, multinational capital is able to use its deterritorialised organisational structure to maximise the advantages of the ‘organised non-liability’ to which Beck (1995) refers.

There have been many accidents arising from industrial production by western multinationals in developing countries, though none have been as dramatic as the Bhopal tragedy, and few have immediately caused loss of life (though we cannot ignore the real possibility of unverified deaths and injuries). The harmful effects of such plants on developing countries are more often subtle and unseen, as Weir notes:

Bhopal is being repeated, not just as explosions, infernos, and deadly clouds heard, felt, and seen, the world over, but as ‘mini-Bhopals’ – smaller industrial accidents that occur with disturbing frequency in chemical plants in both developed and developing countries. Even more numerous and deadly are the ‘slow-motion Bhopals’ – unseen and chronic poisoning from industrial pollution that causes irreversible pain, suffering, and death.

(Weir, 1987: xi–xii)

Weir documents several of these ‘unseen Bhopals’, some of which involve western-owned plants producing the same sort of deadly chemicals as at Bhopal and in similarly unsafe circumstances.

The traffic in risk can also involve the relocation from western to developing countries of obsolete industrial plant. In some cases this equipment may have been formerly used in the country of origin to produce chemicals or products which may have been subsequently banned for environmental reasons. Weir reports the case of one Californian chemical manufacturer which shipped its disused DDT formulation equipment to an Indonesian pesticides firm in 1983 (DDT was banned in the United States in 1972). Soon after this, the plant was being used in a village south of Jakarta to produce DDT. By late 1984 locals and environmental activists claimed that pollution from the factory had killed twenty-five villagers and numerous domestic animals (Weir, 1987).

THE WASTE TRADE

Another dimension of the traffic in risk is the toxic waste trade. Indeed, Beck (1995: 134) believes that the ‘worldwide traffic in toxic and harmful substances’ is a defining characteristic of the present age: the ‘risk society’. As he puts it so evocatively, ‘Supranational groups of regions and countries swallow poisons and waste on others’ behalf’ (ibid.: 154).

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In 1990 the United Nations estimated that the world was producing between 300 and 400 million tonnes of hazardous wastes annually, about 98 per cent of which was generated by OECD countries (Greenpeace International, 1994). A combination of regulation, NIMBY opposition and technical necessity means that much of these wastes must be shifted from where they are generated to other places for storage and/or destruction. An inestimable proportion of the world’s toxic wastes are dumped illicitly, often surreptitiously in city drainage systems, the open sea or the countryside.

Some of the trade occurs within the developed world. In the late 1980s, for example, it was estimated that 100,000 waste transfers occurred annually within Europe (Smith and Blowers, 1992). However, a significant amount of the commerce in wastes involves transfers of domestic and industrial refuse (both toxic and non-toxic) from developed nations to poorer countries (ibid.: 212). According to Greenpeace, Germany is the largest waste exporter in the world, and in 1993 shipped over 600,000 tonnes of hazardous wastes to ten different countries in Europe (including former Soviet Bloc nations) and to the developing world (Edwards, 1995a). The United States in 1992 exported over 145,000 tonnes of toxic wastes abroad, with large amounts being shipped to Canada and Mexico (Edwards, 1995b). Even relatively minor advanced capitalist nations like Australia and New Zealand exported significant quantities of hazardous waste to Asia (New Zealand’s ‘toxic colonialism’ (Otago Daily Times, 10 March 1994: 7), Australia’s ‘toxic trade’ in exhausted lead/acid car batteries (Daly, 1996)). Smith and Blowers (1992) detail the export of wastes, some of which included radioactive materials, by both the United States and European countries to Africa during the late 1980s with Guinea-Bissau as a major destination – that country being offered the equivalent of its then existing GNP (some $US120 million) ‘to dispose of European hazardous waste in landfills’ (ibid.: 212). Smith and Blowers also report the growth of waste trading between developing countries.

Under pressure from environmental lobby groups (notably Greenpeace), European governments agreed during the late 1980s and early 1990s greatly to restrict further exports of waste to the developing world. Developing nations have also imposed controls. The 1991 Bamako Convention, for example, achieved an Africa-wide ban on waste imports (Greenpeace International, 1994). By the early 1990s, a similar ban was in place covering Central America (Greenpeace International, 1996). The principal international waste trade regulation is the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes.

However, Smith and Blowers (1992) point out that these international controls have thus far proved inadequate given the huge economic incentives which continue to stimulate the traffic in waste. Both governments and private firms can profit enormously through the waste trade. Not surprisingly, these authors conclude that a network of waste “brokers” is already operating in Europe and these economic incentives will become prime factors in encouraging such entrepreneurs towards profit maximisation by seeking a Third World location for waste’ (Smith and Blowers, 1992: 221). Waste entrepreneurs have been able to exploit a critical loophole in the Basel Convention which permits exports to developing countries if the waste is destined for ‘recycling’. Lax trade regulations have thus allowed many waste-exporting firms to ship toxic materials to developing countries disguised as ‘garbage’ or waste for recycling (Greenpeace International, 1994). In 1996, for example, China accused the United States of violating the Basel Convention by illegally exporting ‘garbage’ containing radioactive waste to Chinese dumps (The Canberra Times, 3 July 1996: 9).

In 1994 parties to the Basel Convention agreed to the immediate ban of all hazardous wastes exports from OECD states to non-OECD countries (Greenpeace International, 1996). This measure sought to close the ‘garbage for recycling’ loophole by banning the shipping of all wastes for recycling to developing countries after 31 December 1997. Greenpeace hailed the move as a ‘victory for environment and justice’, but warned that ‘there are still a few governments together with cohorts from industry who are still intent on undermining the ban decision’ (Greenpeace International, 1996: 1–2). Indeed, Edwards (1995a: 13) reports that Germany, Australia and Britain are trying to undermine the ban by signing bilateral agreements for the trade of recyclable wastes with developing nations. In any case, many of those involved in the waste trade doubt the efficacy of the controls established by the Basel agreement. One leading German industrialist has described the convention as ‘poorly defined and open to interpretation from end to end’ (Edwards, 1995a: 13). There have also been a number of episodes in the early 1990s involving ships carrying unwanted cargoes of toxic wastes drifting from port to port in an unsuccessful search for a country willing to take their dangerous loads. Smith and Blowers (1992) intimate that at least some of these instances have ended in the illegal dumping of wastes at sea.

The traffic in waste both undermines political attempts to change the nature of hazardous production in the developed world (hence Greenpeace’s policy of opposing the trade) and also exacerbates international inequality by further eroding the wellbeing of developing countries. Alvare (1993) explains the waste trade within a broader geopolitical framework, in which developing countries function as energy mines and entropy sinks; viz., they supply raw materials for western industry and act as waste dumps for the corrupted energy which this production generates. Smith and Blowers (1992) support this characterisation, and point to the role of multinational corporations – including both manufacturing and waste management firms – in a global process of cascading exploitation whereby wastes are transferred from core (advanced capitalist) states to both semi-core states (e.g. former Soviet Bloc nations) and, most especially, the underdeveloped periphery.

As with some poorer communities within nation states, so, internationally, risk-producing capital often uses its economic power over impoverished
nation states in a form of environmental blackmail: 'The ability of TNCs [transnational corporations] to circumvent legislation by moving their operations to another country allows them to exploit those countries which are desperate for foreign capital' (Smith and Blowers, 1992: 217). Moreover, so Beck (1995: 154) claims, in the international context, 'Suicide for damages helps just as little as protesting publicly'. Once a state enters into the waste trade, there is little chance of turning back: 'Regions swallow not only the poison but also its non-attributability...'. For on top of everything else, the 'poison-swallowing regions' are under compulsion to hush it up'. In the era of the risk society, waste, with its rising exchange value, and waste facilities, with their capacity to generate big profits, now appear as sources of economic 'development' which poorer states compete for within secondary or marginal investment circuits.

Here, then, many of the national environmental injustices which were earlier highlighted are mirrored at the international scale. Outwardly at least, political leaders accept heightened environmental risk for their communities in exchange for financial 'compensation'. Yet the internal distribution of this 'compensation' is also an ethical issue. The ubiquity of authoritarian regimes in developing countries (Burma is an extreme example, but there is a continuum of post-colonial, post-communist authoritarianism) means that national communities are endangered by politically deceitful arrangements between states and waste capital that are designed to further the power and material interests of political elites. In such conditions, there is very little chance that the waste trade can improve even the short-term material wellbeing of the masses. This distinguishes the problem from the trading in LULUs in the developed world where it may reasonably be argued that, in certain circumstances, such exchanges might materially benefit local communities in the short term. In the long term, the wellbeing of all, including elites, is risked by waste investment.

CONCLUSION

In the normal process of production, accumulation and exchange in the world capitalist system, massive environmental injustice is occurring by almost any criterion except perhaps one: the entitlement to property. Yet that is the standard which still far outweighs all the rest. Let us not be deceived by the publicity given to environmental successes. These are the rare exceptions to an extremely dismal norm of constant, largely unseen, daily degradation of the world’s environment.

What can be learned from environmental justice struggles within developed nations? Certainly one thing is the importance of the administrative state to regulate the outcomes of processes and structures that distribute environmental quality. How far a wide range of values can intrude upon the instrumental rationalities of the state is always in question. But the administrative state remains the focus of political struggle in which the dialectic of justice takes shape. However inadequate it may be, the administrative state is the only instrument open to lifeworld values, which is today capable of balancing the power of multinational capital organised by competitive markets. Some, at least, of the seeming inability of nation states to respond to the demands of their constituencies, as well as some of the shaping of these very demands, can be laid at the door of the unregulated, competitive, globalised, market system which blindly directs 'investment' for short-term profits.

The US 'Environmental Justice' framework may provide a prototypical model for other nations. However, as the foregoing analysis noted, there is an urgent need for international environmental and ecological justice movements to transcend the 'politics of place' in order that the nature of industrial commodity production may itself become problematised. In short, the political critique within developed countries must be shifted from the spatial allocation of risk to the production of risk. Failing this, the environmental justice movement of the United States, for example, will find itself trapped in the politics of distributive justice (i.e. the LULU problem) that ultimately cannot secure universal justice for all human communities and the global environment. At present, the diverse US environmental justice movement, in concert with a more popular opposition to LULUs, has managed only to 'half transcend' the distributinal politics of place. The combined effect of these popular and institutional forces may have created a 'landscape of resistance' for risk-producing and risk-managing industries, but this achievement may only have served to ensure that environmental hazards are exported to more 'accepting' landscapes, including developing countries.

As we have shown, the traffic in waste and other environmentally injurious development is worsening international inequality and helping to sustain risky industry throughout the globe. The absence of a supervising state – and the United Nations in its present manifestation cannot yet perform this role – means that a distributinal framework cannot be readily applied to the international traffic in risk. Those international agreements which have sought to control aspects of the traffic in risk, such as the Basel Convention, have been shown both to be vulnerable to political attacks by recalcitrant states and difficult to enforce. Epochal structural changes, including economic globalisation, the mobility of capital (and risk) and the collapse of Cold War antagonisms, have created a new geo-political context for ecological politics:

We are on the threshold of a new phase of risk-society politics; in the context of disarmament and the relaxation of the East–West tension, the apprehension and practice of politics can no longer be national but
Indeed, we argue that this new international political practice, of which Beck speaks, must seek to eliminate the flourishing traffic in risk which is already worsening the legacy of global uneven development bequeathed by centuries of colonialism and capitalism. This new ecological politics requires a new global institutional context which can both problematise the production of risk and regulate the distribution of hazards between states. We consider the problematics of such an institutional context in Chapter 7.

More immediately, a question we have not thus far addressed concerns an aspect of ‘the environment’ we have had to take for granted: its quality. An environment, ‘the’ environment has value. The question is where this value comes from. If we are to go beyond ‘environmental justice’ to ‘ecological justice’ (justice between humans and non-human nature) we will have to consider this question, to which we now turn.

ECOLOGICAL JUSTICE
Rethinking the bases

The maxim ‘live and let live’ suggests a class-free society in the entire ecosphere, a democracy in which we can speak about justice, not only with regard to human beings, but also for animals, plants and landscapes.

(INTRODUCTION)

The distribution of environmental quality is the core of ‘environmental justice’ – with the emphasis on distribution. The instrumental interest people share in having a safe, healthy and pleasant environment in which to live is unproblematic. Ecological justice is a different matter. Here we have to consider the meaning of environment in a deeper sense, the sense of our moral relationship with the non-human world. Of course, the two senses are related in that the value of the environment is changed and considerably extended if the relationship is construed not just as an instrumental one but a moral one.

In modern philosophy justice has for the most part been conceived in terms of the relationship of self to other humans – though Kant, Bentham and Marx, whose ideas we have already discussed, and Spinoza, who we discuss in this chapter, all considered human–nature relations. The passage from Seneca in the front of this book shows that the idea of justice to nature is an ancient one. To conceive of justice to nature, ecological justice, it is necessary to reconceive of the basis of justice in the way we think of our ‘self’ and thus how we define our interests and moral values. As we have seen, a variety of different ways of conceiving of justice has emerged as different strands of thought and social movements have placed different challenges to our picture of ‘the self’ on the political agenda. This picture has been reshaped and reinterpreted several times in the last two or three hundred years. Perhaps the most profound change in this century has been the challenge to individualism in which greater account is taken of the person as a member of a culture and a society. But individualism, reacting against feudal societies, and latterly communist societies, itself supplied a revolutionary