

# Green Development, 2nd edition

Environment and sustainability in  
the Third World

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## 1 The dilemma of sustainability

'The question is,' said Alice, 'whether you *can* make a word mean so many different things.' 'The question is,' said Humpty Dumpty, 'which is to be master – that's all.'

(Lewis Carroll 1872)

### Sustainable development

It is a familiar cliché that actions speak louder than words, but this denies the power of words, and the ideas of those who make and spread them. As Jonathan Crush (1995) notes in *Power of Development*, the words written and spoken about development, the 'discourse of development', have enormous power. Development action is driven forwards by texts ranging from humanitarian tracts to national development plans. These portray the world in particular ways, often in crisis of some kind, and almost always as requiring management and intervention by the development planner (*ibid.*). These texts also determine who has the authority to act and establish the basis of knowledge that frames such action. The words we use to talk about development, and the way our arguments construct the world, are usually seen as 'self-evident and unworthy of attention' (*ibid.*, p. 3), but they are not: in development nothing is self-evident, even if many choices or options remain hidden from view.

Poverty, hunger, disease and debt have been familiar words within the lexicon of development ever since formal development planning began, following the Second World War. In the past decade they have been joined by another, sustainability. 'Sustainable development' has become one of the most prominent phrases in development discourse – indeed, Lélé suggested it was 'poised to become the development paradigm of the 1990s' (1991, p. 607), and in many ways it did. The capacity of the phrase to restructure development discourse and to reorganise development practice, a sure reflection of its power, will be discussed below.

Where did the new phrase come from? Its usage grew from small and at first unpromising roots, as will be explored in Chapter 3. Suffice it to say here that the concept began to be widely adopted following the 1972 United Nations Conference on the Human Environment in Stockholm (see Chapter 3).

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Subsequently, under the label 'ecodevelopment', the concept was taken up by a number of authors (e.g. Riddell 1981, Sachs 1979, 1980, Glaeser 1984b). Sustainable development became the central concept in the *World Conservation Strategy* published in 1980 (IUCN 1980), and the foundation of the report of the World Commission on Environment and Development seven years later (Brundtland 1987). When it was launched in April 1988, the World Commission on Environment and Development claimed that its report set out a 'global agenda for change'. It was an agenda that now began to command attention in the core of the development universe: in a major shift of culture and policy, the President of the World Bank spoke in May 1988 of the links between ecology and sound economics in a major statement of the Bank's policy on the environment (Hopper 1988). Such 'greening' of development thinking was a characteristic feature of the 1980s (e.g. Harrison 1987, Conroy and Litvinoff 1988).

Sustainable development's place in the discourse of development was assured in the early 1990s when it became the driving concept behind the United Nations Conference on Environment and Development in Rio in 1992 (UNCED, or the 'Earth Summit'). This was attended by representatives of over 170 governments, most of whom made some kind of public proclamation of support for environmentally sensitive economic development. UNCED was also a forum for a vast range of non-governmental organisations, many of them from the First World, that strove both to capture media headlines and to influence intergovernmental debate through the parallel Global Forum (Holmberg *et al.* 1993, Chatterjee and Finger 1994). A vast media circus danced attendance, and the conference was thus promoted as a global event, although there were as many column inches decrying the glaring contradiction of privileged delegates and the urban poor of Rio de Janeiro's *favelas* as there were discussing sustainability, or analysing the political economy of international environmental diplomacy. The media had built up hopes that UNCED would bring about a new environmental world order, and once the razzmatazz had died down, many commentators reported that the chance had been blown. But what was going on behind the endless dry diplomatic debates about texts in conference rooms and the windy rhetoric of politicians pursuing the evanescent Green vote, and how realistic were hopes that the conference would bring about a change in business as usual? What was this 'sustainable development' that was on the table at Rio? What kind of environmentalist critique of development did ideas of sustainability represent?

Concern about environment and development in the Third World has been an important feature of debate about development studies since the late 1970s, and even then awareness of the environmental aspects of development was not new, whether among scholars, practitioners or participants in development. What was new in the last decade of the twentieth century was the scope and sophistication of critiques of the environmental dimensions of development in practice, and the high profile being given to the environment in the context of social and economic change (McCormick 1992).

To a large extent, credit for the infusion of environmental concerns into development discourse must lie with Northern environmentalists. Goodland *et al.* capture the passion of the environmentalist vision: 'the transition to sustainability becomes urgent because global life support systems – the environment – have a time-limit' (1993, p. 297). The loss of species and natural habitat caused by development projects had been a potent focus for the extension of environmental pressure group politics familiar in the industrialised world since the 1970s. 'Save the rainforest' campaigns followed logically enough from concerns about pollution, whales or First World countryside.

Concern for Third World environments reflects in part simply the growing integration of the global village, and environmentalist pressure can be seen as an extension of traditional concerns about environmental quality in that village's new countryside, in the Third World. First World environmentalism, however, has done more than simply broaden its field of concern (McCormick 1992). There has been a self-conscious effort to move beyond environmental protection and transform conservation thinking by appropriating ideas and concepts from the field of development. In extending their focus from hedgerows to rainforests, environmentalists found (or claimed to have found) much common ground with Third World peoples' groups opposing development projects that threaten breakdown in indigenous and subsistence ways of life. In environmental opposition by environmental groups to investment in large projects such as dams, the threats they represent to the rights and interests of indigenous peoples are likely to be at least as prominently expressed as threats to biodiversity. Indeed, the links between the two are likely to be drawn explicitly and prominently (e.g. Pearce 1992).

The display of development agencies and environmental groups dancing to the same 'sustainable development' tune in the 1990s is remarkable, but not entirely accidental. It reflects in part the success of environmentalist pressure on aid donors through the 1980s, backed by willing and effective media coverage (e.g. Harrison 1987), combined with renewed concern about the global environment, particularly the 'ozone hole' and the 'greenhouse effect'. The response of development agencies to environmental issues also reflects the more general 'greening' of politics in Western industrial countries in the 1980s, epitomised for UK observers by Margaret Thatcher's famous speech to the Royal Society in 1988.

The question remains, however, how deep the apparent revolution in development thinking goes. Has there really been a 'greening' of development? Has there, for example, been a revolution in ideology in any way analogous to Charles Reich's celebrated account of new thinking in the USA in the 1960s, *The Greening of America* (Reich 1970)? Commentators agree that the environmentalism of the 1960s and 1970s was a new social movement of profound significance (e.g. Cotgrove and Duff 1980, Hays 1987), but to what extent did this embrace thinking about the Third World, let alone thinking *within* the Third World? Was the 'greening of development' evidence of a paradigm shift in development thought, or simply an exercise in relabelling? At a time

when there is such visible enthusiasm about new perspectives and new alliances over the environment, this is a hard and unpopular question, but it is an important one.

The answer turns on the extent to which 'sustainable development' or 'green' development or 'ecodevelopment' are words backed up by logical theoretical concepts rather than simply convenient rhetorical flags under which ships of very different kinds can sail. Are those phrases synonyms for some more general concept? If not, are the differences between them consistent and important in terms of the values they draw upon or the policy responses they reflect and demand? The diversity of ideas about sustainable development will be discussed later (in Chapters 5 and 6); for now, it is most important to ask what the phrase 'sustainable development' itself means, and whence it derives its power to attract such a large and disparate following.

### Power without meaning?

The phrase 'sustainable development' is now widely employed, in the fields of policy and political debate as well as research. It seems to contain the potential to unlock the doors separating disciplines, and to break down the barriers between academic knowledge and action. It does this partly because the term is at the same time superficially simple and yet capable of carrying a wide range of meanings and supporting sometimes divergent interpretations. Both radical environmentalists and conventional development policy pragmatists have seized the phrase and used it to express and explain their ideas about development and environment. In the process they have created a powerful new term in the lexicon of development studies, and a theoretical maze of remarkable complexity (Dixon and Fallon 1989, Daly 1990, Lélé 1991).

Sustainable development has many definitions (see, for example, Pearce *et al.* 1989). Some definitions have a strong element of social justice; Eckholm (1982), for example, calls for 'economic progress that is ecologically sustainable and satisfies the essential needs of the underclass' (p. 8). The dominant definition, however, has undoubtedly been that of the Brundtland Report, in *Our Common Future*: 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland 1987, p. 43). Notwithstanding the rhetorical and slightly vague character of this definition (attributes it shares with many others – see, for example, the discussion in Lélé 1991), it has proved to be popular and compelling for those concerned about poverty, and inter- and intragenerational equity in human access to nature and natural resources. It has commended itself to those concerned to speak for nature itself, arguing for the preservation of habitats and species. The appealing, moralistic but slightly vague form of words of the Brundtland Report allowed sustainable development to become, in Conroy's term, the 'new jargon phrase in the development business' (1988, p. xi). It became also a vital element in the discourse of researchers trying to explain the relations between economy, society and environment, and to

influence these (e.g. Redclift 1984, 1987, 1996, Clark and Munn 1986, Redclift and Benton 1994).

However, the Brundtland definition of sustainable development is a better slogan than it is a basis for theory. Words about sustainable development, whether in academic journals or the soundbites of politicians, very often prove to have no coherent theoretical core. The literature is strewn with the terms 'sustainability' and 'sustainable development', and before them with related terms like 'ecodevelopment', but too seldom are any of them given a clear and consistent meaning. With some reason, Redclift comments that sustainable development 'seems assured of a place in the litany of development truisms' (Redclift 1987, p. 3).

Such phrases are versatile, allowing users to make high-sounding statements with very little meaning at all. Their flexibility and their 'beguiling simplicity' (O'Riordan 1988, p. 29) only add to their attraction. On the one hand, environmentalists speak of 'sustainable development' in trying to demonstrate the relevance to development planners of their ideas about proper management of natural ecosystems. The conviction behind works such as the *World Conservation Strategy* is that sustainable development is a concept that truly integrates environmental issues into development planning. In using terminology of this sort, environmentalists have attempted to capture some of the vision and rhetoric of development debates. Sadly, they often have no understanding of their context or complexity. Environmentalist prescriptions for development, shorn of any explicit treatment of political economy, can have a disturbing naïveté.

On the other hand, the phrase 'sustainable development' is attractive to development agencies and theorists looking for new labels for liberal and participatory approaches to development planning. Development bureaucrats and politicians have undoubtedly welcomed the opportunity to fasten onto a phrase that suggests radical reform without actually either specifying what needs to change or requiring specific action. Thus the UK response to the Brundtland Report emphasised that there was continuity between its concept of sustainable development and existing British government policy, albeit in 'strands which have previously had separate currency' (Department of the Environment 1988): Brundtland's sustainable development was apparently acceptable to the British government precisely because it did not demand radical change of policy direction, just some linking up of existing policies and procedures.

Since the 1980s, sustainability has become an increasingly plausible element of government policy in the UK as elsewhere. Much of the thinking and rhetoric about sustainability has been focused on the domestic environment and economy, but the same language is used of intentions for development aid. The 1997 UK government White Paper on international development made a specific commitment to the elimination of poverty in poorer countries through sustainable development; specific objectives include the promotion of 'sustainable livelihoods', a focus on the poor, and protection and better management of the environment (Carney 1998a, DFID 2000). Arguably the rushed application of green camouflage paint to existing policies that characterised the late 1980s has

been replaced with more carefully constructed thinking and policies; at the very least, even the most hard-bitten cynic will admit that the quality of the paint-work has improved. As a way of talking about development, sustainability is recognised and used everywhere.

### The discourse of development

One reason for the overlapping meaning of sustainable development is the highly confused question of what development itself means. This is a semantic, political and indeed moral minefield (Goulet 1971). Seers (1977) argued that if poverty, inequality and unemployment were decreasing without a loss of self-reliance (for example through foreign ownership of manufacturing plants), then development was taking place. Versions of this formula have formed the standard basis for development discourses, but development itself nonetheless remains an ambiguous and elusive concept, prey to prejudice and preconception. It is 'a Trojan Horse of a word' (Frank 1987, p. 231), a term which is sufficiently empty that it can be filled at will by different users to hold their own meanings and intentions. The word 'development' is used both descriptively (to describe what happens in the world as societies, environments and economies change) and normatively (to set out what *should* happen; Goulet 1995).

Sachs speaks of development as 'a perception which models reality, a myth which comforts societies, and a fantasy which unleashes passions' (1992a, p. 1). It is what Howard (1978) described as a 'slippery value word' (p. 18), used by 'noisy persuaders' such as politicians 'to herd people in the direction they want them to go' (p. 17). Advocates for particular ends in development, or means to achieve those ends, make explicit use of the slipperiness of the word, and the confusion created by its heavy ethical burden.

Such value-laden words become political battlegrounds. To return to Crush (1995), the discourse of development promotes and justifies very real interventions and practices, and is inextricably linked to sets of material relationships, to certain kinds of specific activities and to the exercise of power. Arturo Escobar argues that reality has been so 'colonised by the development discourse' that 'those who were dissatisfied with this state of affairs had to struggle for bits and pieces of freedom within it, in the hope that in the process a different reality could be constructed' (1995, p. 5).

Concepts of development have a complex pedigree and etymology. There is a long history of 'development thinking before development began' (Brookfield 1975, p. 2). The word 'development' came into the English language in the eighteenth century and soon acquired an association with 'organicism' and ideas of growth (Watts 1995). Cowen and Shenton (1995) explore its evolution, and the origins of ideas of *underdevelopment*, in nineteenth-century European thought. By the start of the nineteenth century, development had become a linear theory of progress, bound up with capitalism and Western cultural hegemony, and advanced through mercantilism and colonial imperialism. Tracing what Watts (1995) calls the 'genealogy' of development reveals

the complexity of its meanings over time. In the light of this, it is somewhat surprising that there has been such a uniformity to development thinking in the period since the Second World War.

This capitalist and Eurocentric 'developmentalism' (Aseniero 1985) presents 'development' as the process that recreates the industrial world: industrialised, urbanised, democratic and capitalist. Development has been depicted as a 'crucible' through which successful societies emerge purified, both modern and affluent (Goulet 1971). Developmentalism suggested that countries developed through different stages, on 'a linear path towards modernisation' (Chilcote 1984, p. 10), and that progress down that path could be measured in terms of the growth of the economy, or some economic abstraction such as per capita gross domestic product. The word 'development' then came to mean the projects and policies, the infrastructure, flows of capital and transfers of technology which were supposed to make that imitation possible. Development thus involved the imposition of the established world order on the newly independent periphery. Illich commented:

There is a normal course for those who make development policies, whether they live in North or South America, in Russia or Israel. It is to define development and set its goals in ways with which they are familiar, which they are accustomed to use in order to satisfy their own needs, and which permit them to work through the institutions over which they have power or control.

He concluded, harshly, that this formula 'has failed and must fail' (1973, p. 368).

In practice, 'orthodox development thinking' (Oman and Wignarajah 1991, p. 5) sought to follow the success of the Marshall Plan by applying the same approach (injecting foreign aid for capital for investment in infrastructure) to the non-industrialised world: 'it was assumed that rapid industrialisation and generalised improvement in material conditions of life could be won quickly by following the formula that had worked in reconstructing war-damaged Europe' (Goulet 1992, p. 468). With that aid went the hegemony of values. The modernisation paradigm was built on the conceptual separation of 'modern' and 'traditional' (or 'Western' and 'non-Western') societies. Such concepts, which welded seamlessly into ideas of development, came from the same roots in Western Enlightenment rationality, and built on profoundly encoded Western preconceptions about civilisation and improvement versus barbarism (Slater 1993).

In *The Development Dictionary*, Wolfgang Sachs dates the start of the 'age of development' to the inaugural speech by US President Harry Truman in January 1949, in which he referred to the southern hemisphere's 'underdeveloped areas' (Sachs 1992a, p. 2). From this exercise in labelling grew the exercise of economic and cultural power that has become development practice. Development discourse is built on this definition of the non-'developed'

and non-Western 'other' as a fitting, needy and legitimate target for action. Much of Edward Said's account of the power of Orientalism could be applied to development (Crush 1995; cf. Said 1979). The manner of that representation, and the material actions that flowed from it, have been highlighted and challenged in the extensive writings of 'post-colonialism' (e.g. Spivak 1990).

Esteve (1992) claims that the notion of 'underdevelopment' also began with Truman's speech (although he was not the first to coin the word), suggesting that from that day 2 billion people became underdeveloped. 'Development', its meaning soon narrowed to economic growth, thenceforth was defined as the escape from that sorry condition. Of course, escape proved impossible for most countries and most people, even in these narrowly defined terms. Sachs describes the project of development as 'a blunder of planetary proportions' (1992a, p. 3). For him, development is obsolete, standing 'like a ruin in the intellectual landscape' (*ibid.*, p. 1).

By the time of the United Nations First Development Decade (1960–70), the certainties of developmentalism had begun to falter. Social and economic conditions for the majority of the population in many of the countries of the capitalist periphery steadily worsened in the immediate post-war years (Frobel *et al.* 1985). Commentators from a wide range of persuasions began to admit (and theorise about) the glaring gap between bland and simplistic expectation and reality. Debate about the nature and causes of the apparent failure to 'develop' has created the burgeoning disputes of development studies, and the proliferation of development theory (Chilcote 1984).

The 1980s saw the rise to authority of a 'counter-revolution' in development theory and practice, one that was opposed both to the established neo-Keynesian approach to planning, and to structuralist and Marxist theories of development (Toye 1987, 1993, M. Robinson 1993). The counter-revolution emphasised the benefits of free markets and the minimisation of the activities of the state. The conversion of key Western governments (and hence of the World Bank) to the doctrine of economic liberalisation (as in 'Reaganomics' and 'Thatcherism') for a while carried all before it. Thus the world financial institutions, spearheaded by the implacable economists of the World Bank and the International Monetary Fund, imposed structural adjustment to counteract the 'longstanding weaknesses in every economy and in international arrangements' revealed by the recession of the early 1980s, in pursuit of recovery and 'sustained and rapid growth of the kind the world enjoyed for twenty-five years after World War Two' (World Bank 1984b, p. 1). In particular, the counter-revolution demanded that governments slim down. As the *World Development Report* commented (in the related context of the transformation of the economies of Eastern Europe and the former Soviet Union), 'the state has to move from doing many things badly to doing its fewer core tasks well' (World Bank 1996, p. 110).

Debate in development studies has reflected changing ideas about the meaning of development, and the policies necessary to achieve it. With the rise of conservative economic policy in the industrialised world, and the collapse

of the Iron Curtain in Europe, old certainties broke down and old enemies wavered and became confused. In radical development theory, there was extensive but unresolved debate within and about Marxism and post-Marxism (Corbridge 1993), while the rise of postmodernism, cultural theory and post-colonialism undermined established certainties. It was widely seen that there was an impasse in development studies (Schuurman 1993). Academics, being enthusiastic arguers, mapped and remapped ways out of that impasse, proposing a renewed dependence on the redemptive powers of neo-populism, 'new social movements' or a renewed and radically modernist post-Marxism (Corbridge 1993, Crush 1995, Escobar 1995). The crisis in development studies released a torrent of words. Meanwhile, the problem of global poverty persisted and deepened, the account of human misery growing almost unchecked.

### The challenge of poverty

Whatever the state of development theory, there is no doubt of the ethical imperative of tackling human poverty (Corbridge 1993, Goulet 1995). As Goodland *et al.* (1993) succinctly put it, 'poverty is a massive global outrage' (p. 297). The perception of dramatic and unsolvable problems in the countries of the 'South' is common to politicians, aid agencies, academic analysts and the media. Indeed, such perceptions have long made crisis the commonplace motif of development writing (e.g. Brandt 1983, Frank 1981, Frobel *et al.* 1985), particularly in Africa (Timberlake 1985, Morgan and Solarz 1994). The 1984 drought in Sahelian Africa intensified this perception, leading both to the astonishing individual generosity of those unkindly (but perhaps accurately) described as 'the fat and happy in rich countries' (Harrell-Bond 1985, p. 13) and to the stereotyping of the continent and its peoples as locked, helpless, in a rictus of crisis (Watts 1989).

The 'crisis' of development, or the lack of it, embraces the problems of debt, falling commodity prices, falling per capita food production, growing poverty and socio-economic differentials both within Third World states and between countries. This idea of the Third World locked in crisis tends to favour 'fire-fighting' approaches to development as against discussions of deeper ills and the treatment of symptoms, not causes. This urgency leaves little time for lateral thinking. Thus Julius Nyerere commented, 'African starvation is topical, but the relations between rich and poor countries which underlie Africa's vulnerability to natural disasters have been relegated to the sidelines of world discussion' (Nyerere 1985).

The dimensions of the problems facing the Third World are substantial and real enough, and the litany of statistics on poverty soon acquires a grimly familiar ring. The World Bank's *World Development Reports* show that the notion of a world where all countries are experiencing economic growth and gains in quality of life (let alone all people in those countries) is an illusion. The kinds of aggregate statistics used to discuss such questions are deeply unsatisfying, but inasmuch as they are accurate they have the merit of relative

consistency. They show that of a world gross national product (GNP) of US\$28,862.2 trillion, only 6.4 per cent stems from low-income countries, this figure falling to only 1.7 per cent if India and China are excluded (World Bank 2000). Public debt was over 93 per cent of GNP in the world's poorest countries in 1997 (UNDP 1999).

Gross national product per capita in 1998 was US\$520 in low-income countries, and \$380 per capita if China and India are excluded. By contrast, average incomes were \$21,400 in the UK, \$29,340 in the USA and \$40,080 in Switzerland (World Bank 2000). Moreover, not only are average incomes far higher in these and other industrialised economies, but wealth is more equitably distributed: if the rich and super-rich elite of poor countries were removed from calculations, the plight of the mass of the poor in poor countries would stand out even more starkly. Even without this, it is clear that some countries are well adrift from any model of equitable world development. Average annual income was less than \$300 per head in a whole swath of countries, including Burundi, Cambodia, Chad, the Democratic Republic of Congo, the Central African Republic, Eritrea, Ethiopia, Malawi, Mali, Nepal, Niger, Nigeria, Rwanda, Sierra Leone, Tanzania and the Yemen Republic. Many, although not all, of these poorest countries are in Africa, and many are also suffering the destruction brought by civil or international war (e.g. Rwanda, Sierra Leone, Eritrea, Ethiopia). The share of the global economy enjoyed by the world's poorest countries, and by the world's poorest people in all countries, is catastrophically low and falling.

However, economic measures are a crude way to seek to measure development; as the *Human Development Report* notes, 'human development is the end – economic growth is a means' (UNDP 1996, p. 1). Since 1990 UNDP has calculated a Human Development Index (HDI) on the basis of longevity (life expectancy at birth), educational attainment (adult literacy and primary, secondary and tertiary education enrolment ratios, and standard of living (measured as gross domestic product (GDP) per capita). The HDI ranking has been calculated for 174 countries. In 1999, forty-five countries had high HDI ranks (HDI > 0.80), ninety-four had medium (HDI 0.5–0.79) and thirty-five had low ranks (HDI < 0.5). The average HDI value for the world in 1999 was 0.71. For industrialised countries it was 0.92. For the least developed countries it was 0.43, and for sub-Saharan Africa 0.46 (UNDP 1999). This index usefully throws attention on issues of quality of life, but even so, it sanitises crude geographical differences in life quality and life chances. It translates into life expectancies at birth in 1999 of 39 years in Malawi, 58 years in Bangladesh, or 53 in the Lao People's Democratic Republic, compared to 80 years in Japan or 79 in Canada (UNDP 1999). In many poor countries, particularly in Africa, investments in healthcare are being overwhelmed by AIDS, and life expectancies are plunging, while attempts to invest are disabled by the death of key people at every level from families to governments.

In 1999 the average proportion of the population in least developed countries with access to safe water was 41 per cent. In Bangladesh, out of a population

of 125.6 million, 5 per cent had access to safe water, 26 per cent to health services, 57 per cent to sanitation; 56 per cent of children are underweight. Across all developing countries 2.5 billion people lacked access to safe water. Partly for this reason, infant mortality rates for those countries with the lowest HDI scores are high, 92 per 1,000 live births in 1996. This is a marked improvement on 1960, when the figure was 168 per 1,000 births, but the infant mortality rate is still greater than 1 per cent in twenty-seven countries, many of them at war (e.g. Sierra Leone, 165 per thousand, and Afghanistan, 163 per thousand).

These aggregate statistics numb the brain, and hide as much as they reveal. In particular, they need to be broken down by gender. In almost every country, women are systematically in a worse position than men in their exposure to poverty and its effects, and in their access to clean water, health services and education. Average life expectancies at birth in least developed countries were 53 years for men and 51 for women (UNDP 1999). Average adult literacy in least developed countries was 38 per cent for women and 59 per cent for men, and as low as 7 per cent for women in Niger and 10 per cent in Bhutan. The massive burden of household reproduction, and in particular the care of children, falls predominantly to women (Momsen 1991). Children's development and welfare suffers in tandem with the immiseration of women.

Obviously the accuracy and usefulness of aggregate statistics of this sort are limited. Nonetheless, the overall picture of the human dimensions of the challenge in the Third World is clear. Globally, decades of development investment have not driven the problem away. Indeed, the disparities between the world's rich and poor have increased; the gap between the economic power of industrialised countries and the levels of consumption of the majority of their people, and the economic weakness and grinding poverty of the least industrialised countries, has grown. Furthermore, the globalisation of economies and the inter-visibility provided by technology make these inequalities more and more glaring. The magnitude of the continuing problem of poverty is the chief evidence for the failure of the practical project of 'development' (i.e. the failure of development bureaucracies to solve obvious problems). Behind this failure lies the failure of both conventional economic thought and its new-right and reconstructed-left critique, and the discomfiting impasse of development studies. This gloomy scene has provided fertile ground for ideas about sustainable development to flourish in the 1980s and 1990s. Perhaps sustainable development could provide an alternative paradigm, certainly a new start. Out with the old (Keynesianism, Marxism, dependency theory, even harsher versions of the new 'market' orthodoxy), in with the new: as the *Human Development Report 1996* had it, by the middle of the 1990s the concept of development had deepened and broadened to include dimensions of empowerment, cooperation, equity, sustainability and security (UNDP 1996). The idea of sustainable development was welcomed by development thinkers and practitioners because it seemed to provide a way out of the impasse and away from past failure, a means of re-routing the lumbering juggernaut of development practice without

endangering belief in the rightness and feasibility of its continued forward movement.

### The challenge of environmental change

Ideas about sustainable development draw on critiques of the development process, for example from populist writings (including failures of distribution and the plight of the poorest), from radical ideas (such as dependency theory), and from more pragmatic critiques of development project appraisal and implementation. However, in sustainable development these have been wedded to rather different concerns about the *environmental* impacts of development, both the costs in terms of lost ecosystems and species, and (latterly) the impacts of development action on natural resources for human use. Above all, environmentalist critiques of development have presented a picture of the Third World environmental crisis. Indeed, the notion of *global* crisis was an important element of environmentalism in the 1960s and 1970s, and became a central element in debates about sustainable development.

The problems of the environmental impacts of development will be explored in detail in later chapters. I will simply note here that the literature on the global environment of the past twenty years has portrayed a second crisis, paralleling that of poverty, a crisis of environmental degradation. In the last decades of the twentieth century, academics and journalists identified many heads to this particular monster, most notably desertification (Grainger 1982), fuelwood shortage (Munslow *et al.* 1988) and the logging of tropical rainforest (Caufield 1982, Myers 1984). These problems and others were widely reviewed, for example by Myers (1985). From 1972 the United Nations Environment Programme (UNEP) published annual 'state-of-the-environment' reports on particular issues, and carried out a review of 'world environmental trends' ranging from atmospheric carbon dioxide and desertification to the quality of drinking water (Holdgate *et al.* 1982).

Many accounts of the 'state of the world's environment' have been completed since, all of them relentlessly negative in their account of rapid declines in forest cover, rapidly rising global levels of energy use and carbon dioxide production (particularly in Asia), overexploitation of fisheries, depletion of soil resources, and shortages of food not met by international trade and aid flows (e.g. Groombridge 1992, Holdgate 1996, World Resources Institute *et al.* 1996, UNEP 2000). Such statistics suffer from the same problems of quality and completeness as data on development, or the lack of it (discussed above). Despite more than three decades of satellite remote sensing data, and the application of increasingly sophisticated computers to the analysis, storage and retrieval of data, information on global or regional environmental change is still patchy and in some instances (in spite of the work of international organisations such as the World Resources Institute in the USA and the UNEP-World Conservation Monitoring Centre in the UK) of limited reliability (Groombridge 1992). Perhaps the urgency and melodramatic style of environmental groups

desperate for enough media attention to win a hearing from politicians and government decision-makers has sometimes further muddied the waters.

Debates about global environmental crisis have often descended into slanging matches between environmentalist Cassandras crying disaster and conservative (often corporate) sceptics claiming that they exaggerate. The debate is dogged not only by lack of data, but also by the lack of a clear 'headline' statistic, for example something that might parallel the debates about poverty in the development field (although that is by no means easy to define, as the vast literature debating its measurement shows). One attempt to derive such a 'headline' is the World Wide Fund for Nature's 'Living Planet Index' (LPI; Loh *et al.* 1999). This was first calculated in 1998, as an attempt to answer the simple question 'How fast is nature disappearing from the Earth?' (*ibid.*, p. 1). The LPI includes three indicators of the state of natural ecosystems; global natural forest cover (excluding plantations), populations of 102 freshwater vertebrate species (birds, mammals, amphibians and fish) and populations of 102 vertebrate marine species (birds, reptiles, mammals and fish). The LPI fell by 30 per cent between 1970 and 1995, at around 1 per cent per year. Natural forest cover declined steadily since the 1960s, with about 10 per cent lost between 1970 and 1995, although losses of biodiversity may be greater owing to changes in forest quality, particularly on temperate forests (Loh *et al.* 1999). Freshwater species showed a 45 per cent decline and marine species a 35 per cent decline between 1970 and 1995 (*ibid.*).

Whatever the limitations of indices of this sort and of the data on which they are based, there can be no doubt that the human impact on the biosphere is very extensive, and accelerated rapidly during the twentieth century. Global mapping suggests that three-quarters of the habitable surface of the earth has been disturbed by human activity (Hannah *et al.* 1994). The UNEP *Global Biodiversity Assessment* (UNEP 1995) suggested that between 5 per cent and 20 per cent of the perhaps 14 million plant and animal species on earth are threatened with extinction. Rates of species extinction are hard to estimate with any accuracy, but Edward Wilson suggests that human activities have increased previous 'background' extinction rates by at least between 100 and 10,000 times. He comments, 'we are in the midst of one of the great extinction spasms of geological history' (E.O. Wilson 1992, p. 268). This conclusion about rapid loss of species is widely held (e.g. Prance 1991), and in particular is tentatively supported by analysis of known data on extinctions in the IUCN 'Red Lists' (Smith *et al.* 1993).

The fundamental dynamic of environmentalist concern about development in its broad sense – the expansion of industrial capacity, and the urbanisation and socio-cultural changes that accompany it – is the scale of human demands on the biosphere. The conventional environmentalist target (particularly in the harsh neo-Malthusianism of the 1960s and 1970s) has been population growth. The more serious problem is consumption. Vitousek *et al.* (1986) calculated that 40 per cent of potential terrestrial net primary production was used directly by human activities, co-opted or forgone as a result of those activities. This



consumption embraces food and other products directly consumed (e.g. crops, fish, wood, etc.), and that consumed by livestock, as well as production consumed less directly, for example in fires or human-induced soil erosion. As the authors of this study recognised, such figures are bound to be full of errors of all kinds; nonetheless they suggested quite reasonably that 'an equivalent concentration of resources into one species and its satellites has probably not occurred since land plants first diversified' (*ibid.*, p. 372).

In the 1990s, climate change came to share with biodiversity loss a key place in environmentalist discourse about human impacts on the biosphere. The World Climate Conference in Geneva in 1978 called attention to the problem of greenhouse gases and anthropogenic climate change, and the work of the Intergovernmental Panel on Climate Change (IPCC) from 1988 established a strong global scientific consensus that human action was indeed affecting global climatic patterns. Human impacts on climate are superimposed on natural variation, and the global (and even more the regional) ocean-atmosphere system is notoriously hard to model satisfactorily. However, the IPCC consensus has held, so that, for example the second report in 1995 concluded that the global mean temperature of the twentieth century was at least as warm as any since 1400 (which is as far back as data allow comparison); the mid-range climate change scenario predicted an increase in global mean surface air temperature of 2°C between 1990 and 2100, which would give a sea level rise of 50 cm by 2100 due to expansion of the oceans as they warm up, and ice melting (Houghton *et al.* 1995). The impacts of this, globally and regionally, are complex (warmer, wetter winters in northern polar regions, for example, and a reduced North Atlantic thermohaline circulation). The implications for environment and society are, however, potentially very great, with what is rather blandly described as 'an enhanced global mean hydrological cycle', meaning more droughts and floods and storms.

Anthropogenic climate change has become more than some environmentalist bogey; it is now accepted scientific fact. The Framework Convention on Climate Change, signed at Rio, reflects that acceptance, although views about who should take what action and when vary a great deal (see Chapter 4). To environmentalists, the evidence for human impacts on climate has offered clear evidence of the unacceptably large scale of human demands on the biosphere. It represents a significant challenge to developmentalism and its conventional strategies of industrialisation and economic expansion.

Clearly, just as the idea and practices of development are an unprecedented human enterprise of the past century or two, there is a novelty to that enterprise's demands on the natural systems of the earth. As environmentalists, from the 1960s onwards, have said repeatedly, humans have not been here before: there are no road-maps for the future. How is life (human and non-human) to be sustained? It was to answer such questions that the discourse of sustainable development was created.

### Environment and development: one problem, two cultures

The threat of multidimensional global crisis has therefore been a key theme within debates about sustainability: a crisis of development, of environmental quality and of threats to the material benefits supported by natural biogeochemical processes and sinks. The 1992 *World Development Report* opened with the assertion that 'the achievement of sustained and equitable development remains the greatest challenge facing the human race' (World Bank 1992, p. 1). By the 1990s the point that there are close links between the problems of development and environment had sunk in, although, despite significant advances (Blaikie 1985, Blaikie and Brookfield 1987, Redclift 1984, 1987, Redclift and Benton 1994, Elliott 1999), theoretical understanding of the links still tends to lag behind practical and rhetorical recognition of the problem (see Chapters 4 and 5).

It is recognised that tight and complex links exist between development, environment and poverty (e.g. Broad 1994, Reardon and Vosti 1995, Blaikie 1995). The poor often endure degraded environments, and in some instances contribute to their further degradation. Urban air and water pollution are both rising rapidly, even in those countries in which economic growth is taking place, and the degradation of agricultural, forest and wetland resources is extending the depth and breadth of deprivation in many rural areas. Enduring problems, for example the lack of clean drinking water, are getting more and not less serious: 2 million children die of intestinal diseases due to unclean water each year (World Bank 1992).

The reciprocal and synergistic links between poverty and environmental degradation force what Blaikie describes as the 'desperate ecocide' of the poor (1985, p. 138). Access to and control over cultivable land, fuelwood or other usable attributes of nature are uneven. Blaikie emphasises the political dimensions of rights over resources, stressing the need for those seeking to understand environment-development problems to explore the links between environment, economy and society that he calls 'political ecology'. Blaikie and Brookfield argue that 'land degradation can undermine and frustrate economic development, while low levels of economic development can in turn have a strong causal impact on the incidence of land degradation' (1987, p. 13). Poverty and environmental degradation, driven by the development process, interact to form a world of risk and hazard for both urban and rural communities. Understanding the reality of this world, and the environmental, economic and political factors that create it, lies at the heart of the widespread contemporary concern for sustainable development.

However, even in the decade of sustainable development that followed publication of the Brundtland Report in 1987, the fields of developmental and environmental studies were far from unified. The one language of sustainability has hidden the separation of two cultures, which have often remained remote from each other both conceptually and practically.

Despite the rise of careers in 'environment and development', and of massive sources of funding such as the Global Environmental Facility that fuel them,



development planning and environmental planning have remained separate fields. Sociologically, they still have their own separate cadres and culture, their own self-contained arenas of education and theory formation, their own technical language and research agendas, and – above all – their own literature. So-called experts (in the sense used by Chambers 1983) rarely claim expertise in both, and seldom understand the theoretical linkages between them. Development and environment work are still the fruit of distinct cultures. Although the two overlap a great deal, and indeed make confident inroads onto each other's territory with scant regard for the exact meaning or purpose of terminology, there is rarely if ever any integration.

The need for effective interdisciplinarity to make sense of the problems of environment and development is blindingly obvious. As Piers Blaikie comments, 'environmental issues are by definition also social ones, and therefore our understanding must rest on a broader interdisciplinary perspective that transcends institutional and professional barriers' (1995, p. 1). In practice, however, both academics and practitioners are reluctant to cross disciplinary boundaries. Our individual 'disciplinary bias' is deeply coded by our training, and is a severe constraint on innovative thinking (Chambers 1983). This problem is not confined to the Third World. Thus it is recognised that research on global environmental change must be pursued through collaboration between the natural and social sciences; however, such work is by no means easy to achieve successfully (Miller 1994). Unrealistic expectation, problems of data and measurement, and problems with the ways in which research questions are framed all represent challenges to interdisciplinarity. In particular, the differing perspectives of ecologists and economists provide a difficult terrain for effective engagement on issues of sustainability (Tisdell 1988).

A further problem is that there is an unavoidable and hence critical ideological component in understanding problems of environmental resource use and environmental degradation. The importance of ideology in understanding 'environmental' phenomena is most clearly analysed in the context of soil erosion and erosion control projects planned and enforced by the state, particularly in colonial territories (see Blaikie 1985, Blaikie and Brookfield 1987, Anderson 1984), and in their successors, anti-desertification projects (Swift 1996). These are discussed in detail in Chapters 7 and 9. They are a particular example of the power of environmental narratives to condition and constrain even 'impartial' scientific research on the environment (Leach and Mearns 1996). Environmental scientists, and environmentalists, persistently fail to recognise the ideological burden of ideas and policies. People trained in natural science disciplines in particular find it difficult to transcend the notion of the impartiality and 'truth' of science, and hence to agree a common approach to understanding (let alone tackling) field problems of poverty and environment (Seeley and Adams 1987).

Development crises and environmental crises exist side by side in the literature, and together on the ground, yet explanations often fail to intersect. Environmentalists and social scientists speak different languages. Very often

theirs is a dialogue of the deaf, carried on at cross purposes and frequently at high volume. The complex and multidisciplinary nature of the links between development, poverty and environment makes them difficult to identify and define. They often go unnoticed, fall down the cracks between disciplines, or get ignored because they fit so awkwardly into the structures of academic analysis or discourse. Nonetheless, in the real world these links are real enough. They explain why development policy often causes rather than cures environmental problems. Development and environmental degradation often form a deadly trap for the poor.

Chambers (1983) argued that it is the plight of the poor that should set the agenda for development action, and in his approach to sustainability he directed attention to the concept of sustainable rural livelihoods, defined as the secure access to sufficient stocks and flows of food and cash to meet basic needs. He suggested that there are both moral and practical imperatives for making sustainable livelihood security the focus for development action. This is the principle underlying the arguments in this book: the touchstone for debate about environment and development is the human needs of the poor, both environmental and more conventionally developmental. Among other things, it makes debate about the environment in the Third World, like that about development, inherently political; but, as Redclift argues, it is an illusion to believe that environmental objectives are 'other than political, or other than distributive' (Redclift 1984, p. 130).

### Outline of the book

This book is not another attempt to find the winning formula, the mix of sticks and carrots, rhetoric, capital flows and environmental knowledge that will achieve 'real' development. Rather, it is about the peculiar difficulty of talking sensibly about the environmental dimension to development in the Third World. Its aims are, first, to discuss the nature and extent of the 'greening' of development theory. It does this by examining the key concept of sustainable development. It looks at the origins and evolution of these ideas, and offers a critique of their articulation in the *World Conservation Strategy*, the Brundtland Report and the documents of the Rio Conference. It is argued that the ideology of sustainable development is eclectic and often confused. Sustainable development is essentially reformist, calling for a modification of development practice, and owes little to radical ideas, whether claiming a Green or a Marxist heritage. Second, the book attempts to draw a link between theory and practice by discussing the nature of the environmental degradation and the impacts of development. In doing so it attempts to address the question of the limitations of reformist approaches. It argues that, ultimately, 'green' development has to be about political economy, about the distribution of power, and not about environmental quality.

The first part of the book is largely concerned with ideas and theories about environment and development, and focuses in particular on the global scale.

Chapter 2 discusses the origins and growth of sustainable development ideas, looking in particular at their roots in nature preservation, colonial science, and the internationalisation of scientific concerns in the 1960s and 1970s. This is an account of institutions and organisations as well as ideas, and takes the form of a historical account. Attention is focused on the 1970s and the Conference on the Human Environment in Stockholm in 1972, at which sustainable development became a specific and identified area of concern. The *World Conservation Strategy* was a direct development of the thinking at that time.

Chapters 3 and 4 discuss the evolution of 'mainstream sustainable development', arguing that a coherent set of ideas has persisted through the 1980s and 1990s, in the *World Conservation Strategy* and the Brundtland Report, in *Caring for the Earth*, and (in Chapter 4) in the work of the Rio Conference. These chapters explore these ideas in some detail, analysing both what they say and the nature of their ideologies. They draw on both technocentrist and ecocentrist worldviews, the first being rationalist and technocratic, and leading to approaches to the environment involving management, regulation and 'rational utilisation', and the latter being romantic and transcendentalist, embracing ideas of bioethics and the intrinsic values of non-human nature (O'Riordan 1981, O'Riordan and Turner 1983, Worster 1985). Turner (1988b) suggests that a coalition may be possible between less extreme examples of these divergent areas of thought, 'accommodating technocentrism' (a conservationist position of sustainable growth) and 'communalist ecocentrism' (a preservationist position emphasising macroenvironmental constraints on growth, and decentralisation). However the field is classified, the history of ideas goes some way to explaining why current visions of sustainable development are rather messy: enthusiastic, positive and committed without, in general, being overtly political.

The sustainable development mainstream is essentially reformist, a broadly neo-populist vision of the world being allied with a call for more technically sophisticated environmental management. The theoretical dimensions of this mainstream view are explored in Chapter 5, which discusses market environmentalism, ecological modernisation and the role of environmental economics in delivering sustainable development. However, there are more radical ideas about world development. These will be discussed in Chapter 6, where eco-socialism, ecoanarchism, deep ecology and ecofeminism will be analysed, and their relations to both the conventional reformism of mainstream sustainable development thinking and the mainstream of radical thought will be discussed.

The second half of the book will provide a commentary on the theoretical ideas in the first half by discussing environment and development in practice, moving down the scale continuum to focus attention on development projects. In Chapter 7 the links between sustainability and environmental degradation will be explored, particularly climate change, desertification and overgrazing, as will the scientific thinking that underlies them. Chapter 8 will consider the environmental costs of development, looking at water resources and the impacts of dams. Chapter 9 will discuss the political ecology of sustainability in the context

of tropical forests, conservation, and projects and famine. In Chapter 10 the environmental problems of urbanisation, industrialisation and pollution will be considered within the framework of ideas about 'risk society', and Chapter 11 will examine the prospects for improved technical planning using established techniques of environmental appraisal, and the 'greening' of aid. Chapter 12 will explore the potential of ideas of achieving development not 'from above' through better planning, but 'from below', through the participation of local people. The final chapter of the book (Chapter 13) will move beyond these various 'reformist' approaches to sustainability to consider more radical strategies.

This book does not offer a synthesis, in the sense of a shopping list of environmental desiderata, nor an attempt to set out a blueprint for 'sustainable development'. There is no comfortable celebration of the achievements of the new green bankers and aid bureaucrats. Instead, it reveals the tensions in the heart of the environmental critique of development practice which challenge the calculated reformism of mainstream sustainable development. Important elements in green critiques of development are radical and not reformist, and they are both awkward and inconvenient. Mainstream sustainable development is bureaucratically and politically acceptable, because it seeks to reprogram the juggernaut of development through reformist thinking, involving better measurement of social and environmental impacts, better assessment of costs and benefits, better 'clean' technologies and efficient planning procedures. Alternative countercurrents within sustainable development offer politically far more risky waters, for they challenge the global status quo and raise painful and radical questions. Between these two broad views there is tension. The ethics of sustainability demand rather more than merely reform of the development process. The 'greening' of development demands a more radical analysis, and a more transforming response.

In 1970 Charles Reich wrote with passion and hope in *The Greening of America* of the new consciousness abroad in the USA, 'arising from the wasteland of the corporate state like flowers pushing up through the concrete pavement' (Reich 1970, p. 328). Three decades later, a generation for many and a lifetime for many in the South, the confident exuberance of that time is gone. However, many of the seeds sown in the 1960s have taken root, and environmentalism is one of them. Despite their flaws, the growth of sustainable development ideologies has had an impact on the consciousness that informs development thought and action. There is a new environmental awareness in development which is perhaps evidence of a 'greening' of a kind. To date it has been largely superficial, a thin green layer painted onto existing policies and programmes. The challenge of more profound change still lies ahead.

### Summary

- Sustainable development has become a central concept in development studies, building on environmental, social and political critiques of development theory and practice.

- There is no simple single meaning of 'sustainable development': a wide range of different meanings are attached to the term. Far from making the phrase useless, it is precisely because of its ability to host divergent ideas that sustainable development has proved so useful, and has become so dominant.
- One reason for the complexity of concepts of sustainable development is the confused and contested meaning of development itself. The idea of sustainable development has gained currency in the 1990s at a time when development thought is widely held to have reached an impasse.
- The use of the term 'sustainable development' reflects in particular the prominence at the end of the twentieth century and the beginning of the twenty-first about the problem of acute global poverty and global environmental degradation. Although it is now acknowledged that these crises are linked, problems of environment and development are often addressed independently. They have to be tackled in an integrated way; the challenge of doing so is inevitably political. There are choices to be made between reformist and radical ideas about sustainability and development.

### Further reading

- Corbridge, S. (1995) *Development Studies: a reader*, Arnold, London.
- Crush, J.C. (1995) *Power of Development*, Routledge, London.
- Elliott, J.A. (1999) *An Introduction to Sustainable Development*, Routledge, London (2nd edition).
- Holdgate, M.W. (1996) *From Care to Action: making a sustainable world*, Earthscan, London.
- McCormick, J.S. (1992) *The Global Environmental Movement: reclaiming paradise*, Belhaven, London.
- Middleton, N. (1999) *The Global Casino: an introduction to environmental issues*, Arnold, London (2nd edition).
- Redclift, M. (1996) *Wasted: counting the cost of global consumption*, Earthscan, London.
- Redclift, M. (2000) *Sustainability: life chances and livelihoods*, Routledge, London.
- Sachs, W. (ed.) (1992) *The Development Dictionary: a guide to knowledge as power*, Zed Books, London.
- UNEP (2000) *Global Environment Outlook 2000*, Earthscan, London, for the United Nations Environment Programme.

### Web sources

- <<http://www.un.org/esa/sustdev/>> United Nations home page on sustainable development (including information on *Agenda 21*, the United Nations Commission on Sustainable Development, and the particular problems of 'Small Island Developing States').
- <<http://www.undp.org/>> The website of the United Nations Development Programme, with data from the UNDP Human Development Reports, and on UNDP's work on democratic governance, pro-poor policies, and crisis prevention and recovery.
- <<http://www.fao.org/waicent/faoinfo/sustdev/>> Information from the Sustainable

- Development Department (SD), Food and Agriculture Organisation of the United Nations (FAO), for example on sustainable food security, land tenure and people's participation.
- <<http://www.wri.org/>> The World Resources Institute website, with up-to-date information on environment, resources and sustainable development, including biodiversity, forests, oceans and coasts, water and health; also information.
- <<http://www.unep-wcmc.org/>> The UNEP-World Conservation Monitoring Centre website has data and maps on conservation and sustainable use of the world's living resources, including the status of species, freshwaters, forests and marine environments.
- <<http://www.worldbank.org/poverty/>> The World Bank on poverty; the first place to look for material and ideas on poverty and its alleviation.