John Blewitt

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Contents

List of Figures, Tables and Boxes

Figures

Tables

Boxes

Introduction

There is a word for it: *Zeitgeist*. A German word meaning something like climate or spirit of the times. Today, the *Zeitgeist* is one that embraces a growing recognition that human actions have impacted seriously and negatively on our planet's ecosystems. Debates over climate change are now focusing on mitigation and adaptation rather than whether it is happening or what is causing it. The answer to this last question is fairly simple and generally agreed. Human action is the predominant cause of the massive and rapid acceleration of greenhouse gasses, global warming and climate turbulence. Our ways of doing business, of producing goods and services, have used the Earth's resources as if they were inexhaustible. The Earth itself has been treated simultaneously as a factory, pleasure park, garbage dump, larder, market-place and war zone. It is self-evident that we, as a species, cannot continue as we are doing. Obscene poverty and fabulous wealth live side by side, and the natural world, for many, can not be accessed at all. Things are not what they used to be, although poverty, inequality, injustice, environmental degradation and war are not exactly modern phenomena. But now we cannot simply continue in the same old way without putting the future at risk of not happening at all. Hence the imperative of sustainable development – our evolving spirit of the times. It has been a long time coming and there have been many resistances and refusals along the way. For instance, we have known about climate change for many years but refused to acknowledge that we were mainly responsible for it. Too big a responsibility for us to handle? Or just an inconvenient truth? It is as ridiculous to be a climate change denier as it is to believe the Earth is flat. Attitudinal and political change is happening slowly, too slowly perhaps; but it is happening.

Sustainable development is simple. It is the idea that the future should be a better, healthier, place than the present. The idea is not new, but the way it is understood, reflected upon, cultivated and implemented possibly is. Neither modern nor postmodern, sustainable development requires an understanding of the natural world and the human social world as being not so much 'connected' as one and the same. Sustainable development is a process that requires us to view our lives as elements of a larger entity. It requires a holistic way of looking at the world and human life. It requires a recognition that other people may not see things like this at all and will have different perceptions, values, philosophies, aims and ambitions. It requires an understanding that the world is multi-faceted, fragmented and complete. This may not be easy to grasp at first, but it is a way of looking at the world and one which increasingly makes sense. That, in any case, is my view.

There are other views. Sustainable development is the product of many stories, worldviews, values, actions and perspectives

which to be fully appreciated require a readiness to listen to others, respect differences, suspend established opinions, and see with others' eyes while allowing other voices to resonate and be heard. Sustainable development both requires dialogue and is a dialogue of values. That is the underpinning rationale of this book in offering a series of guides and signposts to a range of contributions to this dialogue. Of course, this view is both contestable and not particularly original, but if elements within the text motivate further thought, reflection and dialogue, then hopefully our understanding of sustainable development will have been advanced just a little bit further.

Many people are coming to sustainable development with little understanding of the key issues and debates. They may have a deep and detailed knowledge of one specific area, but only the vaguest of inklings of anything beyond. Others may have a general but confused understanding of the theories and perspectives because they are immersed in its practice. Some people see sustainable development as essentially about the environment, and indeed sustainable development has its roots in ensuring that the planet's ecosystems are protected from the ravages of human civilization. Maybe the best way to view sustainable development is as a collage or a kaleidoscope of shapes, colours and patterns that change constantly as we ourselves change. It is for us, therefore, to make sense of the world in all its complexity. We must avoid imposing convenient conceptual frameworks which the world just does not fit but which we find comfortable or accessible. There is a need to acknowledge that we do not, and maybe cannot, understand everything, however hard we might try. Uncertainty and the incomplete nature of our knowledge do not require us to apply simple, or simplistic, solutions to problems. Complex problems require complex solutions. Sustainable development warrants an attitude of mind that welcomes change, difference, creativity, risk, uncertainty, a sense of wonder, and a desire and capacity to learn. It is a heuristic – a way of learning about life and through life. The importance of learning should never be forgotten. We can only grow, flourish and be sustainable if we learn.

Speaking Personally

Having just written about values, perspectives and sustainable development, it is perhaps only right to say a little about my own understanding of sustainable development and my own learning and journey towards it. Like so many other things, my values have evolved, taken on different hues, as I have learned more about the world, other people and myself. Having been a teacher in adult, further and higher education for about 25 years, learning is actually my business as well as my passion. I have noticed my social, political and ethical values becoming slowly greener with the years. I have a strong commitment to social and environmental justice, and a number of writers and practitioners have been significant influences on my learning journey. I have been particularly open to the social ecology of Murray Bookchin, the bioregionalism and humanism of Lewis Mumford, and increasingly the ancient wisdom and spiritual engagement of indigenous peoples. The work

of Greg Buckman, Wolfgang Sacks and Vandana Shiva has been extremely important for me too. Finally, I have always been most at ease with an interdisciplinary or trans-disciplinary approach to understanding the world around us. No one discipline can generate a holistic understanding of human beings and their relationship to the planet or each other. Having said this, I have nonetheless tried to be even handed in my selection and account of ideas, values, issues and actions discussed in this book. I have used a variety of sources and have learned a great deal from many people – friends, family, students and colleagues. Teaching is the corollary of learning, but our learning must not simply be confined to abstract academic exercises or a playing with words. Learning must be married to change, and words to action. As the American philosopher Ralph Waldo Emerson (Ziff, 1982, p61) wrote in his famous 1836 essay *Nature*:

> Words are finite organs of the infinite mind. They cannot cover the dimensions of what is in truth. They break, chop and impoverish it. An action is the perfection and publication of thought. A right action seems to fill the eye, and be related to all nature.

Outline of the Book

The chapters of this book are relatively self-contained, but together make for an understanding of sustainable development that celebrates complexity and diversity. The various sections hopefully demonstrate why sustainable development is such a necessity. Theoretical discussions are interspersed with empirical case studies, and at the end of each chapter are some 'thinking questions' that may serve as guides for future and continuing reflection.

Chapter One focuses on issues of globalization and sustainable development by exploring four specific worldviews and then moving on to examine how the language of economics has shaped much of the discourse. The human experience of economic growth and development offers many salutary lessons – poverty, sweatshops, debt, slums and crime. The work of renowned economists Jeffrey Sachs and Joseph Stiglitz and the more radical critiques of globalization articulated by Greg Buckman and George Monbiot are also discussed. Frequently, the story of sustainable development is told through the establishment and work of major institutions, and this chapter does that too with sections on the World Bank, the United Nations, the World Trade Organization, and the major international milestones that encompass Stockholm, Rio, Kyoto, Johannesburg, Seattle and other iconic place names. Towards the end of the chapter the focus narrows to show how sustainable development policy has been articulated in a national context, and, using the example of the ongoing struggles to conserve the ancient temporal forests of British Columbia in Clayoquot Sound, the relationship between the local and the global is analysed. Finally, the idea of sustainable development constituting a 'dialogue of values' is outlined.

Chapter Two explores some of the major philosophical, theoretical and ethical contributions to the evolving process of sustainable development. Each section is connected so that the reader may detect similarities and differences between the various perspectives

and may gain the opportunity to learn new things or perhaps revisit previously discounted points of view. From 'deep ecology' to 'actor network theory' to 'environmental modernization', this chapter maps sustainable development's intellectual terrain. Chapter Three extends these earlier excursions by reviewing some of the major controversies, disputes and conflicts which sustainable development has stimulated. The ideas and priorities of the Danish statistician Bjørn Lomborg, whose view on climate change and much else is hotly contested, shows how energetic the debate can be and how a certain contrariness can motivate others to develop, refine and rearticulate their own views. The role and meaning of 'sound science' is also explored using genetic modification as an example. Some space is also dedicated to outlining the concept of the risk society and its relevance to understanding the idea that ultimately sustainability is a political act.

Chapter Four moves towards the social and environmental spheres by discussing the growing significance of the environmental justice movement. The reality of the poor, the disadvantaged and the exploited always seeming to be the victims of corporate greed, government corruption or history demonstrates that at the core of sustainable development is a moral imperative. Given the unavoidable and mesmerizing advances of new media technologies throughout the globe, the significance of information and communication technology (ICT) is also explored as a means towards fashioning a more just and healthy world. Chapter Five shifts the focus onto the political, looking at human agency, ecological democratization, environmental campaigning, civic action, the politics of place and community empowerment. The idea that sustainable development is not just environmentalism is reinforced throughout by demonstrating the complexity and interconnectedness of the issues, actions, challenges and hopes of many sustainability practitioners. Human beings have the capacity, and the capability, to right the wrongs and repair the damage they have done if they have the collective will to do so. Chapter Six examines the central importance of economics and business, which have been frequently viewed as a major cause of the problem but are now increasingly seen as a necessary part of the solution. How could it be otherwise, given their overwhelming importance in fashioning everyone's ways of life, material wellbeing and life opportunities? Views of course differ, ranging from the revolutionary dismantling of the global economic system to its restructuring and reshaping through processes of localization, eco-efficiency and corporate responsibility as exemplified by such companies as Interface and such practices as fair trade. A discussion of economic growth and the hegemony of gross domestic product (GDP) frames these explorations.

Now to the future. Chapter Seven looks at how the future has been and is being conceived, by addressing the value of utopian thinking and some practical attempts to establish prefigurative ecovillages. What humans can dream, they can also create in their physical lives on Earth. Much attention is devoted to urban development and environmental design, because today over half the world's population live in urban settlements and because the origins of our present crises can often be traced back to problems with urban design and planning. Techniques and examples of backcasting and scenario analysis are also discussed. Chapter Eight moves the focus on to the resolutely practical by exploring the connectivity between means and ends,

tools and practices, indices and the nature of human wellbeing and human flourishing. Ecological footprinting and environmental space, the Natural Step Framework and the Global Reporting Initiative, and eco-labelling and consumption have as their aim to enable us to live on the only planet we have. Chapter Nine links communication, marketing, new media, education and learning as both vehicles for, and integral aspects of, sustainable development. This immensely important field is central to fashioning a sustainable world, although here, as with so much else, there are debates and disputes as well as dialogue. Combined with action, communication and learning are ways through which many peoples, groups and communities can find their true voice and if necessary invite themselves to the high table of policy formulation and practical action. The final chapter, Chapter Ten, explores leadership and management, with practical case-study examples and by rooting the idea and need for leadership in some of the key values and philosophies informing the dialogue on sustainability and sustainable development. The management system Project SIGMA is rooted in the idea of environmental modernization, and the maverick businessman Ricardo Semler's leadership achievements are rooted in corporate creativity, knowledge innovation and self-organization. The practicalities of dialogue, the significance of emotional intelligence, and the capacity for understanding, being and working with others are presented as key ingredients for community development and personal engagement. The chapter ends with a reference to the culture of aboriginal peoples, suggesting that leaders are less important than developing wisdom and respect for nature and, by implication, each other.

Sustainable development encompasses far more than can be covered in one book, so accompanying *Understanding Sustainable Development* is a website providing illustrative and complementary material, resources and links which will enable the reader to further explore subjects, ideas and actions – see www.people.ex.ac.uk/jdblewit/. But beware, there are no magic bullets. No one way of squaring the circle. Sustainable development is, and probably always will be, work in progress. What we do and how we understand what we do is key to making fewer mistakes, to learning better ways and to nurturing the hope that our future will be a better place than the past for the Earth and all that lives and relies upon it.

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List of Acronyms and Abbreviations

ABCD	awareness, baseline, clear and compelling, down to action
ALS	amyotrophic lateral sclerosis
AMOEBA	Dutch acronym meaning 'general method for ecosystem description and assessment'
ANT	actor network theory
ASA	Advertising Standards Authority (UK)
BAU	business as usual
BSE	bovine spongiform encephalopathy (mad cow disease)
CAT	Centre for Alternative Technology (Wales)
CBD	Convention on Biological Diversity
CEO	chief executive officer
CFC	chlorofluorocarbon
CJD	Creutzfeldt-Jacob disease
CMC	computer-mediated communications
CSR	corporate social responsibility
DCSD	Danish Committees on Scientific Dishonesty
Defra	Department for Environment, Food and Rural Affairs (UK)
DFID	Department for International Development (UK)
EM	ecological modernization
ENGO	environmental non-governmental organization
EPA	US Environmental Protection Agency
ESD	education for sustainable development
EVH	electronic village hall
FTO	fair trade organization
GBM	Green Belt Movement (Kenya)
GCAR	Grupo Cultural AfroReggae (Brazil)
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
GM	genetic modification; genetically modified
GMO	genetically modified organism
GNP	gross national product
GPI	genuine progress indicator
GRI	Global Reporting Initiative
HDI	human development index (UN)
HDR	Human Development Report (UNDP)
HPI	happy planet index
IA	integrated assessment
ICT	information and communication technology
IMC	Independent Media Center
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPPR	Institute for Public Policy Research (UK)
ISEW	index of sustainable economic welfare
IUCN	World Conservation Union
LSX	London Sustainability Exchange
MEA	Millennium Ecosystem Assessment
NCWK	National Council of Women in Kenya
NGO	non-governmental organization

NIMBY	not in my backyard
OECD	Organisation for Economic Co-operation and Development
PR	public relations
R&D	research and development
SIBART	'Seeing Is Believing As a Replication Tool' project (EU)
SIGMA	Sustainability – Integrated Guidelines for Management project
SOFI	state of the future index
SPARC	Society for the Promotion of Area Resource Centres
SVTC	Silicon Valley Toxics Coalition
TEK	traditional ecological knowledge
TNC	trans-national company
TNS	The Natural Step
TRIPS	Trade-Related Intellectual Property Rights Agreement
TVE	Television for the Environment
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WCED	World Commission on Environment and Develeopment
WEDO	Women's Environment and Development Organization
WMO	World Meteorological Organization
WSF	World Social Forum
WTO	World Trade Organization
WWF	World Wide Fund for Nature

1 Globalization and Sustainable Development

Aims

The aim of this chapter is introduce the concepts of *globalization* and *sustainable development*, indicating the complex and contested nature of various debates, actions and practices. The significance and critiques of some key international agreements will be discussed. Sustainable development has developed through political and environmental struggles, through an engagement with the complexity of contemporary ecological and other problems, and through a vast array of differing perspectives, values and interests. The chapter ends with the suggestion that sustainable development is perhaps best understood as a 'dialogue of values' – a way of encouraging people to learn, to discover and to evaluate.

Globalization

Like so many other concepts, *globalization* has been subject to a considerable amount of debate in academic and policy circles. Although a few people dispute either whether globalization is actually occurring, or whether it is a useful way of making sense of current trends and processes, there is a general consensus that globalization is real and that it characterizes the nature of our times. There are a number of definitions on offer, including notions of space–time compression and accelerating interdependence, but for Held et al (1999, p2):

> Globalization may be thought of initially as the widening, deepening and speeding up of worldwide interconnectedness in all aspects of contemporary social life, from the cultural to the criminal, the financial to the spiritual.

Held et al recognize the importance of various spatial attributes suggesting globalization can be located on a continuum that includes the local, national and regional understood as functioning clusters of states, economic relations, networks and societies. The authors continue (1999, p15):

> Globalization can be taken to refer to those spatio-temporal processes of change which underpin a transformation in the organization

> of human affairs by linking together and expanding human activity across regions and continents.

Without reference to these spatial connections there can be no meaningful articulation of globalization. This approach implies:

1. a *stretching* (extensity) of socio-political and economic activities across frontiers such that events, decisions and activities in one region of the world have significance for individuals and communities in others;
2. connections across frontiers are regularized, rather than occasional or random, making for an *intensification*, or growth in magnitude, of interconnectedness, patterns of interactions and flows, which transcend the various societies and states making up our world;
3. the growing *extensity*, *intensity* and *velocity* of global interconnectedness relates to a speeding up of global interactions, due to the development of worldwide systems of transport and communications, which increase the speed of the global diffusion of ideas, goods, information, capital and people; and
4. the local and global are often deeply interrelated, so distant events may have profound local impacts in other parts of the world and very local developments may eventually have enormous global consequences. *The boundaries between domestic and global affairs are therefore likely to become blurred*.

Many globalization theorists, including most notably Manuel Castells (1996), frequently refer to:

- *flows* – the movements of physical artefacts, people, symbols, tokens and information across space and time; and
- *networks* – regularized or patterned interactions between independent agents, nodes of activity or sites of power.

To understand globalization it is probably useful to consider issues such as climate change or trans-boundary pollution, for example acid rain or the fallout from nuclear disasters like Chernobyl. Such phenomena do not respect national boundaries. Desertification, environmental degradation, resource depletion, world trade, global communication, new media, population movements, refugee crises, crime, war and security issues also rarely stay confined within states or even regional jurisdictions (Homer-Dixon, 1999; Barnett, 2001). Economic growth, industrial development and consumerism in countries such as India and China are currently having massive global impacts influencing the wider ecological and economic environment and the everyday life experiences of citizens throughout the world. Geographer Doreen Massey (1993, p66), who has reconceptualized the specificity of place as 'a constellation of relations, articulated together at a particular locus' comprised of many experiences and understandings of its links to the wider world, argues today that social relations of domination and subordination are stretched over time, over the whole planet, so that child labour on one continent supports consumer materialism in another, or environmental degradation or conflict in one region subsidizes politics and energy use elsewhere.

Held et al (1999, p377) posit an anthropocentric conception of *environmental degradation* which refers to 'the transformation of entire ecosystems or components of

those ecosystems ... whose consequences, whether acknowledged by human actors or not, have an adverse impact on the economic or demographic conditions of life and/or the health of human beings'. This conception recognizes the importance of the interaction between the natural and human-social worlds, together with the problems and opportunities that human activity generates. Resource depletion, water shortages and, of course, climate change are again key issues. Given this, the globalization of environmental degradation may take various forms:

- the exploitation and destruction of the *global commons* – the atmosphere, marine environment and hydrological cycles;
- *demographic expansion* and exponential economic growth that leads to increases in pollution and consumption of global raw materials, for example oil and timber; and
- *trans-boundary pollution* involving the transmission of pollutants through the air, soil and water across political borders, so their environmentally degrading impact occurs in many other countries.

Perspectives and Worldviews

Public debates, discussions and discourses on globalization and the environment reveal a wide range of perspectives and worldviews. Clapp and Dauvergne (2005) offer a fourfold categorization, while recognizing that their categories are *ideal types* and that many organizations, groups and individuals share elements drawn from two or more. Complexity and interconnectedness frequently characterize both our world and our attempts to make sense of it. The four categories are identified in the following sections.

Market liberals

- The main causes of global environmental problems are poverty and poor economic growth brought on by market failures and bad government polices that lead to market distortions (for example subsidies or unclear property rights).
- Globalization is largely positive because it fosters economic growth and, combined with the application of modern science and technology and human ingenuity, will in the long run improve the environment and people's material wellbeing.

Institutionalists

- The primary causes of global environmental problems are weak institutions and inadequate global cooperation, which has failed to correct environmental failures, promote development or counteract the self-interested nature of some states' actions.
- The main opportunity of globalization is to enhance opportunities for cooperation, capacity-building and innovative eco-efficient technologies which will generally enhance human wellbeing. The *precautionary principle* should inform the evaluation of new developments.

Bio-environmentalists

- The main causes of the environmental crisis are excessive economic growth, over-population, over-consumption and

rampant materialism.

- Globalization is driving unsustainable growth, trade, investment and debt while accelerating the depletion of natural resources and filling waste sinks. The way forward is to create a new global economy operating within the Earth's ecological limits.

Social Greens

- The main causes of the global environmental crisis are large-scale industrialization and economic growth. The main impact of globalization is that it has led to the acceleration of exploitation, inequality and ecological injustice, leading to the erosion of local-community autonomy and the increase of drug-related global crime, human trafficking and the re-emergence of slavery (Nordstom, 2007).
- The way forward is to reject industrialism (or capitalism) and reverse or at least take democratic control of economic globalization, restore local community autonomy, empower those whose voices have been marginalized, and promote ecological justice and local indigenous knowledge systems.

The 'Capitalization' of Sustainable Development

The discipline of economics has had a profound influence on the conceptualization of sustainability and development, and much of this is due to the application and extension of the notion of 'capital' beyond the spheres of economics, business and finance. In the 18th century the Scottish economist Adam Smith recognized that the accumulation of fixed and reproducible capital, understood largely as productive machinery, combined with the increasing division or specialization of labour, was key to economic growth and development. Since Smith's time, economists and other theorists have extended the capital metaphor to include *human capital* (education and skills), *social capital* (social relationships and networks) and *natural capital* (natural resources and ecosystem services), which in turn may be divided into renewable resource capital and non-renewable resource capital. A further concept, *critical natural capital*, has also been developed. This refers to those aspects of the global ecosystem upon which our lives and cultures ultimately depend. Human activity consumes this natural capital, relying on the ecosystem services to support our standard and quality of life. Apart from consuming this natural capital – oil, timber, fish and so forth – our productive activities have frequently impaired the functioning of environmental services. We have polluted rivers, destroyed natural habitats, rendered land toxic or air unbreathable, released greenhouse gases into the atmosphere, and consumed mineral and energy resources that cannot be renewed or regenerated.

To compensate for the loss, or contamination, of this critical natural capital, substitutes may be sought in the form of new renewable energy technologies, human ingenuity and future technological advances (man-made capital). A Micawber-like optimism occasionally characterizes such an approach – something will always turn up in the end. Arguments focus on the extent to which one capital stock may be substituted for another in order to maintain a constant stock of global

wealth, ensuring future generations do not have a depleted inheritance. In the words of Pearce at al (1989), sustainable development refers to 'non-declining natural wealth' and the maintenance of a constant stock of (natural) capital. Problems then arise over:

- Non-substitutability – what can fill the holes in the ozone layer?
- Uncertainty – what can replace the oceans' role as a climate regulator?
- Irreversibility – human-made capital cannot (yet?) replace an extinct species; and
- Equity – the poor are often disproportionately affected by environmental degradation in comparison to the wealthy.

Related to these concerns and the critical unease with conceiving of the biosphere as another form of capital and one that logically can carry a price tag, the sub-discipline of ecological economics has explored the relationship between the scale of human productive activity and the natural environment, biosphere and 'services' the ecosystem provides. If the human productive economy grows too big, with the biosphere being unable to support it, then development is literally unsustainable. The ideal condition for development is therefore 'sustainable development' – a relational concept referring to a series of practices and processes that ensure 'development' does not exceed the ecological 'carrying capacity' of the planet. Sometimes known as the 'strong sustainability condition', this idea insists that over time there should be no decline in natural capital, that future generations must inherit the same amount of natural resource stocks as previous ones. As with so much else, policymakers, academics, sustainability practitioners and others throughout the world rarely seem to agree – at least fully. Consequently, alternative sustainability conditions have been conceptualized, namely the 'weak' (no reduction in critical natural capital) and the 'very weak' (the loss of natural capital must not be more than the increase in human capital and man-made capital).

The substitution of natural capital with man-made capital can be quite expensive. Heal (2000) discusses how the Catskill watershed provided New York City residents with natural high-quality water for many years. Then, in the 1990s, the Environmental Protection Agency (EPA) suggested that a filtration plant would soon be needed because of uncontrolled land development and intensive water consumption, costing the City up to $8 billion, with annual operating costs around $300 million. This prompted the City to restore the watershed by improving sewage treatment and purchasing land to head off further development. Although still costly, for this course of action estimates were less than $1.5 billion. There are frequently other issues too. For Norton (2005), the real problem arises when communities and professionals of various descriptions speak different languages of sustainability. He argues for the need for a radical shift in attitudes, that environmental policies should be derived from long-term adaptive plans, based on the values embedded in each community or locale. Too often, environmental management disputes and policy conflicts arise between those who wish to place a financial price on the value of nature and those who fervently do see nature as being intrinsically valuable. An approach that reconciles these positions needs to encompass short-term goals, which may be primarily economic or employment-related,

medium-term goals, which may need to encompass local and regional imperatives like water or land conservation, and the more long-term goals, which must encompass planetary survival, the health and wellbeing of future generations, and the regulation of population increase. For Norton, adaptive management means human intellect and practice working as an integral part *of* nature rather than simply *on* nature – human beings are part of the wider ecosystem and sustainable development projects need to articulate that fact. For Norton, there is not just scarcity in the economic sense, but also scarcity of good ideas and effective action. In the words of Homer-Dixon (2002), there is 'an ingenuity gap'.

The 'Humanization' of Sustainable Development: The Millennium Development Goals

In September 2000, at the United Nations Millennium Summit, world leaders agreed on eight measurable Millennium Development Goals (MDGs), to be achieved by 2015, in addition to outlining broad commitments to human rights, good governance and democracy. Official United Nations figures indicated the existence of vast inequalities in an increasingly affluent world – 113 million children do not go to school, over a billion people earn less than $1 a day, 11 million children die before they are five and preventable diseases devastate many populations. Inequality and injustice clearly go hand in hand, but the Millennium Declaration, as with so many international agreements, was the product of extended dialogue, detailed negotiation and frustrating compromise (UN, 2000).

The Millennium Development Goals are:

- halving extreme poverty and hunger;
- achieving universal primary education;
- empowering women and achieving gender equality;
- reducing mortality for the under fives by two-thirds;
- reducing maternal mortality by three-quarters;
- reversing the spread of major diseases – especially HIV/AIDS and malaria;
- ensuring environmental sustainability; and
- creating global partnerships for development with targets for trade, aid and debt relief.

By 2006, it was also clear that progress towards meeting these goals was slow and uneven (UN, 2006), with Asia seeing the greatest reduction in poverty but chronic hunger still widespread in sub-Saharan Africa. There were significant increases in universal primary education, particularly in India, although urban and gender inequalities remained serious problems. Women's position in the labour market and child and maternal mortality rates had improved slightly, although reproductive healthcare services were still very poor in many regions. The incidence of HIV/AIDS, tuberculosis and malaria was still high. The rate of deforestation had slowed down, but forest loss continued. Half of all developing nations still lacked basic sanitation systems, and although development assistance from the more affluent nations had increased, it was still below the targets set a few years earlier. Fourteen per cent of the global population had internet

access, but a digital divide was perceived as separating the developing from developed nations, with over 50 per cent of the population in developed regions using the World Wide Web, as opposed to 7 per cent in developing regions (less than 1 per cent in the least developed nations). Two years earlier, the Human Development Report for 2004 had also noted uneven progress, stating soberly that:

> at the current pace Sub-Saharan Africa will not meet the goal for universal primary education until 2129 or the goal for reducing child mortality by two-thirds until 2106 – 100 years away, rather than the 11 called for by the goals. In three of the goals – hunger, income poverty and access to sanitation – no date can be set because the situation in the region is worsening, not improving.
>
> (Fukuda-Parr, 2004, p132)

Despite all this, the economist Jeffrey Sachs (2005) sees no real reason why the MDGs cannot be realized in full, as they are eminently achievable, requiring relatively modest amounts of aid from developed countries and alterations to trading regulations. He gives five major reasons for this thinking:

1. The number of the world's extreme poor has declined to become a relatively small proportion of the global population – less than 20 per cent.
2. The MDGs aim to end extreme poverty, not all poverty or to equalize incomes.
3. Low-cost interventions to improve energy generation, water, sanitation, disease control and so on can significantly improve living standards and enhance economic development.
4. The rich parts of the world are now extremely rich and the aim of increasing the overseas aid from developed countries to 0.7 per cent of gross national product (GNP) is fairly small. 'The point is that the MDGs can be financed within the bounds of the official development assistance that the donor countries have already promised' (Sachs, 2005, p299).
5. Tools and information technologies can be extremely powerful and effective – enhancing communication and information dissemination, advancing agronomic practices such as 'science-based management of soil nutrients', aiding the development of new medicines and innovation in biotechnology, etc.

Sachs calls for, and has faith in the idea of, an enlightened globalization of democracies, of science and technology, market economies and multilateralism, with progressive public policies at national and international levels leading the way. He believes that the big trans-national corporations have not caused the global crisis, although their past behaviour is not unblemished. The anti-globalization movement's hostility to capitalism is consequently not especially well founded. He writes (2005, p357):

> Too many protestors do not know that it is possible to combine faith in the power of trade and markets with understanding of their limitations as well. The movement is too pessimistic about the possibilities of capitalism with a human face, in which the remarkable power of trade and investment can be harnessed while acknowledging and addressing limitations through compensatory collective actions.

Less sanguine is Aswani Saith (2006), who notes that the MDGs owe too much to the United Nations Development Programme and for some represent a narrowing of the (sustainable) development agenda to just a

few issues in what used to be called the 'Third World'. Various points are made: poverty and deprivation exist in Japan, the UK and the US too; people with disability, who make up around 10 per cent of the global population, receive no mention, and neither do the elderly, who increasingly constitute a significant percentage of the global poor; and there are no goals and targets for secondary education. The identification of the goals and their accompanying indicators and metrics also offer concern. For instance, feminist critics find it difficult to see how gender empowerment can be reduced to a single target or goal, as this issue cuts across so many other areas. For example, universal primary education is an important vehicle for the achievement of gender equality and should therefore not be separable in either policy development or implementation. Setting targets may also easily distort social and cultural behaviour, inducing governments to divert funds to meet reportable targeted areas to the exclusion of others arguably as important but not incorporated in the MDGs. Problems with data, particularly regarding malaria, tuberculosis and maternal mortality, make accurate assessment and evaluation a most important issue. There is little point in setting targets if it is uncertain which actions will produce what outcomes. The MDGs require that initiatives are costed, but Saith (2006, p1178) suggests that:

> This immediately reveals the futility of such exercises. One might ask: what would it cost to overcome violence against women? What might it cost to address the issue of son preference and the appalling and falling sex ratio at birth? What would it cost to get the parents to agree to send the girl child to school? How much would have to be spent to change the laws on property rights?

The global neo-liberal economic agenda, structural inequality, and the gap between the rhetoric and reality on human rights and environmental protection seem to go largely unchallenged and unexamined. Veteran neo-Marxist critic Samir Amin (2006) sees the MDGs as clearly designed to shore up the North's global economic and political dominance of the South. The rhetoric of 'partnership' and the notion of 'good governance' is really about opening up commercial markets for the major economic powers. He asks cynically what else can be expected from an initiative emanating from Japan, the US and Europe and co-sponsored by the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development and the World Bank, which for Amin is little more than 'the G8's Ministry of Propaganda'.

The World Bank's emphasis is largely on the economic aspects of sustainable development, suggesting, in language reminiscent of corporate business strategies, that if human wellbeing is to be enhanced, then society has to carefully manage its 'portfolio of assets', and recognizing that this mix of 'assets' necessary to support improvements is likely to change over time. Economic growth at the expense of social and personal wellbeing or the natural environment, however, is not a feasible option for the future. Unchecked industrial development has led to horrifying environmental damage in some areas, which, like the devastation of the Aral Sea in the former Soviet Union, has led to massive human, environmental and economic costs – disease, pollution, and loss of livelihoods and ecological habitats. Given this, in theory, then, global societies are confronted with three options (World Bank, 2003, p24):

1 simultaneously addressing environmental concerns along with economic growth, even in the short run;
2 placing higher priority on economic growth, while addressing environmental concerns that can be dealt with at relatively low cost in the short run; and
3 placing higher priority on maintaining or restoring the environment in the short run.

Joseph Stiglitz and Globalization

Former Chief Economist at the World Bank and Chair of President Clinton's Council of Economic Advisers, Joseph Stiglitz (2002) has been an eloquent and constructive critic of economic globalization, suggesting that the experience of the 1980s and 1990s has been at best uneven and at worst disastrous for many developing countries. As a result of IMF and World Bank policies, many saw their debts increase, their economies weaken, their environments degraded, and social injustice and economic inequality spiral downwards. Globalization has not brought the economic benefits to poorer countries which advocates of liberalization in the West promised. The developed world did not open up their markets to goods coming from the developing world; the developed world did not abolish subsidies to their own farmers while frequently benefiting from the loosening of controls on capital flows that enabled money to easily move in and out of countries irrespective of the social consequences. Conditions attached to IMF loans undermined the sovereignty and social infrastructure of developing nations, with governments forced to privatize their assets, abandon plans for public investment in health, training and education, and lower or abolish trade tariffs. There is very little for unskilled workers to do in lesser developed countries in a globalized economy apart from live in slums and join the informal sector of beggars and casual labourers. These 'structural adjustments' have had profoundly adverse effects on many urban dwellers, increasing poverty and hardship to such an extent that researchers have wondered how the poor actually survive (Rakodi, 1997; Potts, 1997). And it is not just the urban areas that have suffered – as Potts and Mutambirwa (1998) have shown, the strength of rural–urban economic interaction means the destiny of the countryside is often tied to that of the town or city. The idea that economic growth, driven by the free market, would ultimately benefit everyone via the magical notion of 'trickle down' economics has been a fiction. The hegemonic dominance of the 'Washington Consensus', forged between the IMF (on 19th Street), the World Bank (on 18th Street) and the US Treasury (on 15th Street), focused on a one-size-fits-all strategy, emphasizing downscaling government intervention in the economy, deregulation, rapid liberalization and privatization. In most cases, this strategy did not work (for example in Africa and Latin America), but where it was tempered or ignored (in East Asia), economic resilience and development was able to emerge from the global economic turbulence of the 1990s. The Asian Development Bank argued for alternatives, for a 'competitive pluralism' in which governments in developing countries, although basically relying on markets, were active in shaping and guiding these markets

through promoting new technologies and by insisting private businesses seriously consider the social welfare of their employees and the wider society in which they live. Stiglitz, however, is not opposed to globalization as such, as he believes that with appropriate regulation, equitable trade laws, and good nation-state and corporate governance it can be a genuine force for global good. There are alternatives to the Washington Consensus, which he develops in both *Fair Trade for All* (Stiglitz and Charlton, 2005) and *Making Globalization Work* (Stiglitz, 2006).

Acknowledging that making globalization work 'will not be easy', Stiglitz (2006, p13) suggests a number of general actions that can, and should, be initiated to produce a more comprehensive approach to global development. These include:

- increasing foreign assistence from the rich countries to the poor to the value of at least 0.7 per cent of their GDP;
- cancellation or relief of foreign debt of which the decision by the G8 at Gleneagles in 2005, when the debts owed by the 18 poorest developing nations to the IMF and World Bank was written off is an example;
- genuine fair, rather than free trade, recognizing the limitations of economic liberalization and iniquities produced by global corporate monopolies and cartels;
- protection of the global environment on which all economies ultimately depend through a sensible and workable public management of global natural resources and regulations on their usage and on actions giving rise to 'externalities' and costs; and
- good, democratic government, including enhanced possibilities for democratic regulation of the economy and participation in decision-making processes at all levels.

The voice of the developing nations ought to be listened to more frequently. The fictional trial of international financial institutions that took place in Sissako's 2006 film *Bamako* is taking place in many other forums within global civil society. The US ought to recognize, and act on, its moral obligations to emit less greenhouse gases, particularly CO_2, offer more aid and negotiate better trading arrangements. Developing countries frequently do not have sufficient resources to avoid illegal logging, so they should be paid to stop further deforestation by, according to the Rainforest Coalition led by Papua New Guinea, being allowed to sell carbon offsets for new forest planting. Stiglitz (2006) also believes that, although global corporations frequently facilitate technology transfers, raise skill standards and develop markets which do help developing countries, their primary purpose to make money is clearly articulated by their fiduciary relationship to their stockholders. Consequently, to counteract the harmful effects of corporate actions, Stiglitz feels it necessary to reshape private incentives with social costs and benefits to avoid environmental destruction and labour exploitation. This can be achieved through:

- a combination of corporate social responsibility and stronger regulations to prevent unfair competition;
- limitation of corporate power through the implementation of effective global anti-trust laws;
- better corporate governance, whereby companies are held accountable to all stakeholders – employees and communi-

ties as well as shareholders – making environmental destruction a crime just like fraud and embezzlement;
- international laws being enacted against price fixing and labour exploitation; and
- reducing the scope for corruption, with bribery being viewed as an unfair competitive practice and bank secrecy eradicated so as to prevent the incentive to, or possibility of, enhancing after-tax profits garnered from questionable business practices.

Stiglitz's time at the World Bank did see some changes, with development priorities being refocused on poverty reduction, partnership and the creation of 'good policy environments' rather than simply economic growth. Despite these changes, however, limiting conditions on development loans remain, constraining the possibilities of developing nations to 'own' the preferred development policy (Pender, 2001).

Anti-globalization Critiques

Activists and campaigners like Greg Buckman (2004), Vandana Shiva (2000), Walden Bello (2002) and George Monbiot (2004) criticize existing global institutions and international trading systems. Their views have informed some of the more radical approaches to sustainability and sustainable development. They advocate alternatives that have a different value base, offering different sets of prescriptions and types of knowledge than those currently characterizing the dominant neo-liberal discourse of economic growth, development and globalization. For Wolfgang Sachs (1999), of the Wuppertal Institute for Climate, Environment and Energy, the costs and benefits of economic globalization have not been equitably globalized, and nature has itself been colonized through the 1994 TRIPS (Trade-Related Intellectual Property Rights) Agreement, which gives corporations the right to patent genetic materials such as micro-organisms, seeds and even cells. This has helped 'modernize' agriculture, reinforcing the commercial advantages of growing cash crops in the developing world for markets in developed countries, and has effectively stolen the harvests and livelihoods of many local farmers in India and other nations (Shiva, 2000). For Bello (2002), founding director of Focus on the Global South, the IMF and the World Bank have been 'unmitigated disasters', with oligarchic decision-making defining the World Trade Organization (WTO), and the centralizing tendencies of all three organizations, combined with the inordinate power of big corporations, has militated against popular struggles for decentralization and democracy in many developing nations. At the very least, corporate power needs to be checked and regulated more effectively. In *Deglobalization: Ideas for a New World Economy* (Bello, 2004), he states that continuing anti-globalization action must be married to concrete proposals for an alternative system re-empowering local and national economies and re-embedding the economy in society, rather than having society driven by imperatives such as profit maximization, cost-efficiency and other market verities. This may be accomplished by:

- allowing countries to use their own internal financial resources to promote

development rather than becoming dependent on foreign investment and foreign financial markets;
- redistributing land and incomes to create a vibrant internal market that would secure economic prosperity and free up financial resources for internal investment;
- lessening the salience accorded to economic growth in favour of emphasizing equity in order to fundamentally reduce 'environmental disequilibrium';
- strategic economic decisions being made subject to democratic debate and decision-making processes and not left to the guiding invisible hand of the market; and
- civil society organizations constantly monitoring both the private sector and the state.

New approaches to production, distribution and exchange should be developed that enable the emergence of a system that includes community co-operatives and private and public enterprises and excludes transnational corporations.

For environmental activist George Monbiot, globalization refers to, first, the removal of controls on the movement of what has become known as 'footloose' capital; second, the removal of trade barriers and the 'harmonization' of trading rules; and third, the growth of multinational corporations, which displace local and national businesses. However, the problem is not globalization as such, but the inability of people, civil society and governments to control and restrain it. He writes that 'our task is not to overthrow globalization, but to capture it, and to use it as a vehicle for humanity's first global democratic revolution' (Monbiot, 2004, p23). His prescription or manifesto includes the establishment of a world parliament, modelled in part on the World Social Forum, and the establishment of an 'international clearing union', which would replace much of the undesirable work of the International Monetary Fund, many commercial banks and the World Bank, whose policies and actions have increased the financial debts of the developing world. More economically sensitive and benign policies, including debt reduction and/or abandonment, will replace them. Between 1980 and 1996, nations in sub-Saharan Africa paid out twice the sum of their debt in interest, owing three times as much in 1996 as they did 16 years earlier. Finally, Monbiot (2003) advocates the creation of a 'fair trade organization' (FTO) to replace the iniquitous World Trade Organization, whose operations seem to consistently benefit the rich nations at the expense of the poor. This would lead to greater global political and economic equality as well as a social and cultural equity only currently dreamed of.

Economic development for poorer countries can only take place through a combination of trade and aid together with a degree of protection. Free trade rules benefit strong mature economies and not weak developing ones, which require a degree of government intervention to maintain social standards, business and economic security. For Monbiot, contemporary free trade rules are similar in effect and purpose to the imperial relationships and treaties imposed on weaker nations – Brazil, Persia, China, Japan and the Ottoman Empire – in the first half of the 19th century. Poor nations are forced to grow cash crops and export raw materials to the affluent developed nations, who then 'add value' through production processes and refinement, while externalizing any environmental costs to

the country of origin. 'Footloose capital' would be fettered. Multinationals would not be allowed to move from country to country seeking lower labour and environmental standards in order to boost or maintain profitability. Instead, corporations would be obliged, through incentives, to set high standards and would be punished if they did not. Producers and consumers should carry their own costs and not dump them on other people. Monbiot writes (2003):

> The FTO would, in this respect, function as a licensing body: a company would not be permitted to trade between nations unless it could demonstrate that, at every stage of production, manufacture and distribution, its own operations and those of its suppliers and sub-contractors met the necessary standards. If, for example, a food-processing company based in Switzerland wished to import cocoa from the Ivory Coast, it would need to demonstrate that the plantations it bought from were not employing slaves, using banned pesticides, expanding into protected forests or failing to conform to whatever other standards the FTO set. The firm's performance would be assessed, at its own expense, by a monitoring company accredited to the organization. There would be, in other words, no difference between this operation and the activities of the voluntary fair trade movement today.

Sustainable Development and the Question of Spatial Scale

Sustainable development is about protecting and conserving the planet's natural environment and promoting social equity and a degree of economic equality within and between nations. This can be conceptualized as a process of convergence, so the question of spatial scale is a necessary element in any serious thinking, and action, designed to make our world a better place. It is possible to conceive of scale in ecological and socio-political terms (Table 1.1).

Institutions and organizations operate at many different levels. The United Nations and the World Bank are large international bodies operating on the global scale, and through their various projects they shape the lives of people in specific communities and households. These bodies may develop and implement policies, treaties and actions that affect all ecological scales. The European Union operates at a supra-national level and the Environmental Protection Agency in the US operates at a national level, but its effects may be experienced far wider. And there are countless numbers of community groups, businesses, and formally or informally structured activist organizations that operate at the very smallest scales. National or neighbourhood campaigns to reduce, recycle or reuse will ultimately rely on individual house-

Table 1.1 *Ecological and socio-political scales*

Ecological Scale	Socio-political Scale
Biosphere	World
Biome type	Supra-national regions
Biome	State
Landscape	Region
Ecosystem	Locality 1: city, town
Community	Locality 2: village, community, neighbourhood
Population	Household
Organism	

Source: Grainger (2004).

holds and citizens wanting to conduct themselves in a more sustainable manner. Complementing, and perhaps complicating, this further are the various 'capitals' dispersed across the planet on a variety of spatial scales. When we consider also the possible 'conditions' – strong, weak or very weak – it may become very difficult to see some capitals applying to more than one spatial scale. Grainger suggests that under the very weak condition, critical natural capital is meaningful at a global scale but becomes less so at lower ones. There are implications too with regard to practical action and communication. As a consequence of natural and other endowments, it may not be possible for a small town or village to be sustainable if sustainability is understood in isolation from the wider ecological or political processes, or if it is isolated from other towns, villages and surrounding rural hinterlands. Although an individual town may strive towards being carbon neutral, this may be practically impossible. However, the actions of 'transition towns' may contribute to overall sustainability at higher levels and, most importantly, inspire, communicate or model sustainable action for people in other localities. As towns and cities are intensive resource users, often having huge environmental footprints, any improvement will impact positively on global sustainability. Actions at the local level, if multiplied, may influence policy and practice at higher levels. We can act locally and think globally. We can also act globally and nationally too, as Pontin and Roderick (2007) demonstrate in their call for a 'converging world' of equitable resource use across the planet, initiated by grass roots, community-based action incorporating carbon offsetting, civic dialogue, fair trade business development, one planet living, localization and the emergence of broader solidarity movements linking North and South.

Policy and Progress: The Long Road to Sustainable Development

The 1960s and 1970s witnessed a growing concern that economic growth, development and lifestyle demands in industrial nations were undermining the ecological balance, economic stability and security of the planet. World famous pressure groups were formed, like Friends of the Earth and Greenpeace. A number of ecologically minded writers came to prominence, key texts including Rachel Carson's *Silent Spring* (2000, first published 1962), Charles A. Reich's *The Greening of America* (1970), Theodore Roszak's *Making of a Counter Culture* (1969) and *Where the Wasteland Ends* (1972), and E. F. Schumacher's *Small is Beautiful* (1973). In 1966 Kenneth E. Boulding wrote 'The economics of the coming Spaceship Earth', in which there were no unlimited reservoirs of anything, with humanity having to find its place in a cyclical ecological system capable of continuous reproduction while continually needing inputs of energy. In 1970 the first environmental event to have any real social and cultural impact was held in the US, following an earlier discussion in the United Nations that there should be a global holiday, an Earth Day, to draw attention to environmental degradation. In 1972 the editors of *The Ecologist* issued a call to action, writing, in *A Blueprint for Survival* (Goldsmith et al, 1972, p15):

> The principal defect of the industrial way of life with its ethos of expansion is that it is not sustainable. Its termination within the lifetime of someone born today is inevitable – unless it continues to be sustained for a while longer by an entrenched minority at the cost of imposing great suffering on the rest of mankind.

1972 also saw the publication of *Limits to Growth* by a global think-tank known as the Club of Rome and the first serious international discussion of global environmental issues at the United Nations Conference on the Human Environment in Stockholm.

The Club of Rome (Meadows et al, 1972) report attempted to combine optimism concerning human potential to innovate and transcend environmental and demographic problems with a warning that if contemporary trends continued there would be dire consequences. Their global model was built specifically to investigate five major trends – accelerating industrialization, rapid population growth, widespread malnutrition, depletion of non-renewable resources and a deteriorating environment. The authors posed a key question: What do we want our world to be like? Achieving a self-imposed limitation to growth would require considerable effort. It would involve learning to do many things in new ways. It would tax the ingenuity, the flexibility and the self-discipline of the human race. Bringing a deliberate, controlled end to growth would be a tremendous challenge, not easily met. Would the final result be worth it? What would humanity gain by such a transition, and what would it lose? Thirty years later, three of the authors published an update (Meadows et al, 2005) indicating how their theory of limits to growth remained vital and significant.

In 1980 the Brandt Commission published its *North–South: A Programme for Survival*, placing the responsibility for human survival firmly in the political arena at a time when leaders seemed more concerned with Cold War ideological posturing than addressing issues of global poverty, social inequality, justice, self-determination, human rights and the depletion of natural resources. The Commission did not redefine development, but noted:

> One must avoid the persistent confusion of growth with development, and we strongly emphasize that the prime objective of development is to lead to self-fulfilment and creative partnership in the use of a nation's productive forces and its full human potential.
>
> (Brandt, 1980, p23)

In 1983 work started on a major study by the World Commission on Environment and Development that would firmly establish sustainable development as the most significant concept and practice of our time. In 1987 the results were published as *Our Common Future* (the Brundtland Report). More than half of the Commission were representatives from developing countries, ensuring that global environmental concerns would not overwhelm the desire to eradicate problems of human need and poverty. Unlike Brandt, Brundtland did offer a definition of *sustainable development* (WCED, 1987, p43):

> Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This definition is still commonly used, despite its attracting serious criticisms for suggesting that economic growth, industrial modernization and market imperatives should be key drivers and goals for all nations. Whereas the industrialized North seemed to be, and in many ways still is, concerned with environ-

mental impacts, the issues confronting the majority South included poverty, health, income, agricultural sustainability, food security, educational opportunity and achievement, shelter, sanitation, desertification and armed conflict. Nevertheless, the Brundtland Report did tacitly recognize the internal contradictions within the concept when it stated (WCED, 1987, p43):

> [Sustainable development] contains within it two key concepts:
> 1 The concept of 'needs', in particular the essential needs of the world's poor, to which over-riding priority should be given; and
> 2 The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

Although acknowledging its analysis and recommendations to be specifically rooted in the 1980s, *Our Common Future* concluded its outline of sustainable development by stating that its realization requires (WCED, 1987, p65):

- A political system that secures effective citizen participation in decision-making;
- An economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;
- A social system that provides for solutions for the tensions arising from disharmonious development;
- A production system that respects the obligations to preserve the ecological base for development;
- A technological system that can search continuously for new solutions;
- An international system that fosters sustainable patterns of trade and finance; and
- An administrative system that is flexible and has the capacity for self-correction.

Five years later, in 1992, the UN Conference on Environment and Development, the follow-up to Stockholm, was held in Rio de Janeiro. This meeting, known as the Earth Summit, produced a number of agreements, including the Rio Declaration on Environment and Development, the Framework Convention on Climate Change, the Convention on Biological Diversity, a non-binding Statement on Forest Principles, and the hugely cumbersome but nonetheless important agreement known as Agenda 21 (Grubb et al, 1993).

The Convention on Biological Diversity (CBD) and the negotiations before and after the Kyoto Protocol on climate mitigation are two important examples of multilateral environmental agreements (MEAs). Maintaining biological diversity is key to maintaining the planet's overall health. Healthy ecosystems replenish natural resources, offering all creatures the dynamic equilibrium upon which life depends. If plant and animal species disappear, as they are doing at an unprecedented rate, then monocultures will emerge that are highly susceptible to disease, global warming and other ecological changes. Industrialized systems of agricultural production and other commercial activities are creating monocultures, and both governments and corporations officially recognize that such impacts must be mitigated and managed – biological diversity must be conserved, resources must be used more sustainability and the benefits from the planet's genetic resources shared (more) equitably. Following Rio, many national strategies have been based on these broad international agreements, although indigenous peoples and local communities have not always found their inputs accepted when the actual implementation processes are closely scrutinized. Trade and commercial imperatives

have tended to lead to rather weak attachments to sustainable development. Probably most depressing have been the limited, tortuous and hesitant agreements leading to and from Kyoto – so far the only international, legally binding agreement on climate change. The agreed 5.2 per cent reduction by 2012 of greenhouse gas emissions relative to 1990 (8 per cent for the EU) was seen by many, even in 1997, as painfully inadequate, not least because developing nations like China were not included. The conversion of pollution sources into tradable commodities through emissions trading was allowed, with the biggest entitlements going to the worst polluters. The biggest per capita emitter of all, the US, refused to accept even this. Ten years later, at the G8 summit in Germany, the American administration of George W. Bush finally recognized the reality of human-induced climate change, but still refused to endorse international action to significantly curb emissions. Towards the end of 2007, the US hosted its own international conference on climate mitigation, and reluctantly agreed to support as yet unspecified climate reduction targets at the United Nations-sponsored climate conference in Bali.

Issues of climate change, global poverty, economic inequality and water shortage also highlight the significance of gender in sustainable development. Although much attention has focused inevitably on the appalling inequalities and hardships many women experience, gender issues cannot be separated from wider social, cultural or environmental concerns. The Women's Environment and Development Organization (WEDO) has campaigned vigorously to combat the intergovernmental blindness to the gender implications of environmental policy and actions. Global climate change negotiations, including the Kyoto Protocol and the reports of the United Nations' Intergovernmental Panel on Climate Change (IPCC), concentrate almost exclusively on reducing greenhouse gas emissions, largely ignoring the wider social and gender impacts. By 2007, only:

> four out of the fourteen National Adaptation Plans of Action that have been submitted to the global climate change convention specifically mention the importance of gender equality. The MDGs set out global benchmarks on gender equality, poverty eradication and environmental sustainability, although national reports have so far neglected to seriously address the linkages between these areas.
>
> (WEDO, 2007, p3)

A United Nations Environment Programme (UNEP, 2006) survey, 'Gender mainstreaming among environment ministries', discovered that just two countries involved in climate change activities had incorporated a gender perspective. However, as well as arguing that women often suffer disproportionately from unsustainable development, the organization promotes women as important agents for community empowerment, social leadership and positive change. As the World Conservation Union has shown (IUCN, 2007), communities often cope more effectively during natural disasters when women play a leadership role in early warning systems and post-disaster reconstruction than when they do not. The report also notes that women's local knowledge and skills may offer tangible benefits, for example the Inuit women of Northern Canada have a deep understanding of weather conditions, being traditionally responsible for evaluating hunting conditions. When a drought occurred in the small islands of Micronesia, local women who had a sound knowledge of island hydrology found potable

water by digging a new well. WEDO (2007, p3) adds that 'women tend to share information related to community wellbeing, choose less polluting energy sources and adapt more easily to environmental changes when their families' survival is at stake'.

The 40 chapters of Agenda 21 offer an action plan for sustainable development, integrating environmental with social and economic concerns, and articulating a participatory, community-based approach to a variety of issues, including population control, transparency, partnership working, equity and justice, and placing market principles within a regulatory framework. Local Agenda 21 (LA21), its local realization, was and remains not legally binding, although by the end of 2000 many countries, including the UK, had policies and frameworks for sustainable development at local and regional levels, with municipal governments in many countries taking a strong lead. In those, particularly Scandinavian, countries where local government has a considerable degree of autonomy to raise income locally and regulate environmental matters, LA21 has been most successful. However, throughout the world, even though local government priorities and powers may differ, global structures of economic, financial and political power which include support for the neo-liberal free trade system have compromised attempts to fashion sustainable development from the bottom up. The local cannot be disassociated or disconnected from the global, conceptually or practically. Nonetheless, the LA21 process continued with, from 2002, Local Agenda 21 turning into Local Action 21. In 2004 the 'Aalborg Commitments' (CEMR/ICLEI, 2004) was published, showing many local authorities within the European Union to be firmly embracing the need for urban sustainability and good governance.

Rio was, despite all the compromises and shortfalls, a significant achievement which over the years has gained in stature and authority, not least, and somewhat paradoxically, because of the reluctance of the US to accept sustainable development policies, its frequent refusal to recognize the importance of the precautionary principle as a guide to environmental law, the necessity of reaching global agreements on cutting greenhouse gas emissions and its continuing support for neo-liberal economic globalization. Also, again somewhat paradoxically, the fact that the Rio Declaration was seriously criticized by many radical green groups made its achievement all the more valuable and iconic. For instance, *The Ecologist* magazine published a sharp critique, *Whose Common Future?* (*The Ecologist*, 1993), in which the editor Edward Goldsmith noted the real question is not how the environment should be managed, but *who*, and in *whose* interest? We may share one planet, but we do so in an unequal and frequently unjust way. In addition, poverty is not the absence of a Western lifestyle and neither is it the cause of environmental degradation, rather it is a consequence. Globalized neo-liberal economics and free trade will destroy cultural and biological diversity, not conserve it. Pollution and other externalities are caused, not cured, by modernization and development, and global environmental management, technology transfer and World Bank-financed infrastructure projects (for example US$50 billion for 500 dams in 92 developing countries) reinforce the economic and political hegemony of the developed nations, particularly the US (Baker, 2006), while leading to further environmental and social problems. There is much evidence to support these assertions. After serious protests and much

adverse publicity, in part due to the relentless campaigning of the Booker Prize-winning novelist Arundhati Roy, the World Bank reviewed its commitment to the Narmada Dams project in Gujarat and Madhya Pradesh in India, admitting that it was likely that one million people would be adversely affected through displacement and/or loss of livelihood by the project. The Bank withdrew its support.

In 2002, the Johannesburg Summit reviewed progress. The tensions apparent in 1992 remained, with the ideas and values of market liberals and institutionalists still dominating, though the final Declaration noted that global disparities in wealth and environmental degradation now risk becoming entrenched and that, unless the world acts in a manner that fundamentally changes the lives of the poor, these people may lose confidence in democratic systems of government, 'seeing their representatives as nothing more than sounding brass or tinkling cymbals', as stated in Paragraph 15 of the 2002 Johannesburg Declaration on Sustainable Development (UN, 2002a). Little was said about financing international development, though in the same year, at an International Conference on Finance for Development in Monterrey, northeast Mexico, a consensus was reached on financing sustainable development, fostering health and education, providing shelter, eradicating poverty, and sustaining economic growth. The role of trade and overseas development aid, the importance of debt reduction and good governance in the developing world, and the mobilization of national economic resources and external investment were directly addressed. Economic crises underscore the importance of effective social safety nets (UN, 2002b).

For many anti-globalization protestors who had earlier demonstrated against the extension of the free trade rules of the WTO in Seattle, the Johannesburg Summit was also a disappointment, despite some positive advances. Economic insecurity was recognized as affecting human wellbeing, and globalization itself was recognized as a new challenge for those advocating sustainable development. And despite all the criticisms, disappointments and missed opportunities, the intense diplomatic activities did achieve a number of important things, not least a recognition that sustainable development at a global level has led to, and requires, policies, procedures and principles supporting intergovernmental cooperation and a global civil society that will check, monitor, promote and campaign for change in the face of official reluctance, indifference or denial.

National Policy Context: Sustainable Development in the UK

In the UK, following growing public interest in environmental issues throughout the 1980s, with Prime Minister Thatcher making a speech on global environmental issues to the Royal Society in 1988, sustainable development emerged as a national and regional policy issue. The Conservative Government published a comprehensive White Paper on the environment in 1990, entitled 'This common inheritance', and responded directly to the 1992 Rio Summit by producing the UK's first national strategy on sustainable development in 1994, 'Sustainable development: The UK strategy'. This was prompted by continuing debates relating to world trade, development, pollution control, and various anxieties derived

from economic and consumer growth, and, more specifically, the Treasury's application of monetary values to ecosystem services. This rationalist cost–benefit approach to sustainability has continued to tend to characterize the policies of both Conservative and Labour Governments.

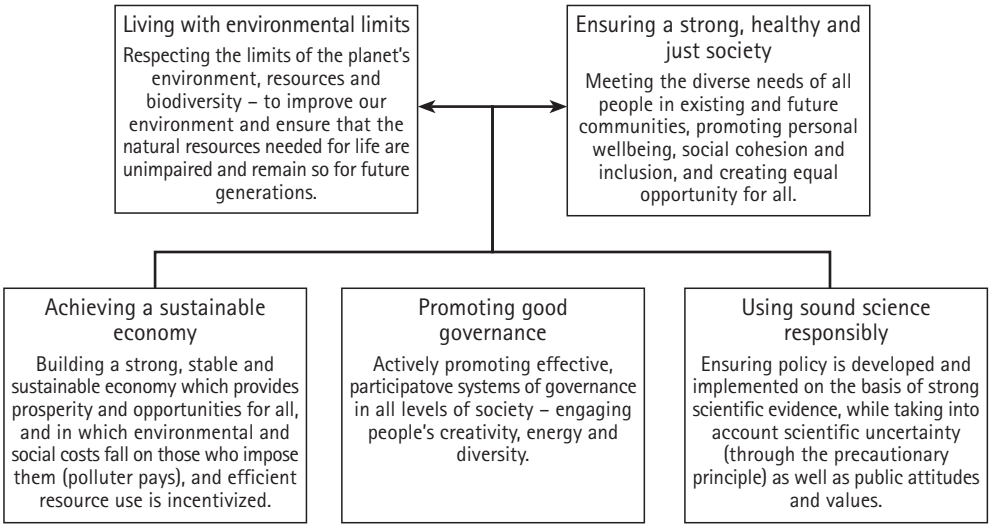
In 1999 the 'New Labour' Government openly addressed sustainable development in a series of policy statements and public speeches, though action came slower than words. In the UK Government's 1999 statement on sustainable development, 'A better quality of life', the tension between social and environmental equity and economic growth remained evident. A Sustainable Development Commission was established in 2001, with former Director of Friends of the Earth and co-founder of the charity Forum for the Future Jonathan Porritt in the chair. Despite its insider status, the Commission issued a critical report on the Government's record on sustainability in 2004. This led to a reworking of UK policy, resulting in a more refined understanding of sustainable development, which explicitly acknowledged the significance of ecological limits to economic growth. The five guiding principles discussed in *Securing the Future* (Defra, 2005a) are:

1 living within environmental limits;
2 ensuring a strong, healthy and just society;
3 achieving a sustainable economy;
4 promoting good governance; and
5 using sound science responsibly.

The Government also identified four clear priorities for action:

1 sustainable consumption and production;
2 climate change and energy;
3 natural resource protection environmental enhancement; and
4 sustainable communities.

Cross-disciplinary research and the design of sustainability indicators that consistently measure human wellbeing were also identified as key priorities.



Source: Defra (2005a, p16).

Figure 1.1 *The guiding principles of* Securing the Future

Sustainable Development as a 'Dialogue of Values'

There has been no shortage of academic critiques of sustainable development. Banerjee (2003) offers a trenchant analysis of the sustainable discourse, powerfully arguing that the concept of sustainable development is subsumed under, and largely defined by, the dominant economic paradigm, and is informed by colonial thought which has resulted in the disempowerment of a majority of the rural populations in the developing world. Banerjee acknowledges that the sustainable development discourse encompasses notions of plurality, and even genuine dialogue, but asserts through his analysis of biotechnology, Western science, biodiversity and intellectual property rights that there remains a very real danger of marginalizing or co-opting the traditional ecological knowledge of indigenous peoples and others who depend on their land for their livelihood. A great deal of the discussion around green business focuses on technicist solutions and eco-efficiency, with green marketing ultimately reduced to the economic bottom line at the organizational level, obscuring macro-economic factors and likely ecological impacts. Conventional rationalizations of competitive advantage still pervade governmental and corporate literature:

> Current development patterns (even those touted as 'sustainable') disrupt social system and ecosystem relations rather than ensuring that natural resource use by local communities meets their basic needs at a level of comfort that is satisfactory as assessed by those same communities. What is needed is not a common future but the future as commons.
>
> (Banerjee, 2003, p174)

Much of this is echoed in Adams (2001, p381), who in his analysis of environment and sustainability in the Third World argues there is 'no magic formula for sustainable development', no easy reformist solution to poverty and that, contrary to dominant practice, development 'ought to be what human communities do to themselves' rather than what is done to them by states, bankers, experts, agencies, centralizing planners and others. A 'green development' is required, for which there can be no clear blueprints or managerial strategies, because of the overwhelming need to be open-ended, open-minded and democratic. Green development is about who has the power and how it is managed. It is about empowerment and self-determination.

Ignacy Sachs's (1999) concern with social sustainability is a reaction to the dominance of the economic discourse in many international organizations' approach to sustainable development. Social sustainability encompasses the absence of war, serious civic violence and state oppression of citizens which destroys community and undermines a people's sense of hope and meaning. For Amartya Sen (1999), realizing human capabilities in a sustainable society means equity, democracy, human and civil rights, and a continuing enhancement of people's ability to do what they have good reason to value. It means being able to conceive of alternatives, being able to act and think differently, and having the capacity and opportunity to do so. It means protecting biodiversity, because society is closely interwoven in a coevolutionary relationship with the biosphere. It means conceiving and practising development

holistically and systemically, not one-dimensionally, not simply economically or socially, politically or anthropocentrically. Development must be synonymous with substantive and instrumental freedoms, including those relating to:

- political expression, dialogue and organization;
- economics and income sufficiency;
- social opportunity such as health and education;
- transparency and openness in government and social interaction; and
- security, understood in terms of welfare, food sufficiency and employment.

For Norgaard (1994), Western science, the environment and material resources are connected within mutually interactive coevolving systems, where one does not control any of the others. In 19th century Europe, the application of scientific knowledge facilitated the use of coal and hydrocarbons, which in turn directed and intensified scientific activity, agricultural, technological and industrial development, and the emergence of a new social, moral and political order. Urbanization, class division, multinational business, global trade and bureaucratic management systems helped concentrate economic and political power and the strategy of imposing this Western practice and ideology of development on non-Western others. Consequently:

> correcting the unsustainability of development is not simply a matter of choosing different technologies for intervening in the environment. The mechanisms of perceiving, choosing and using technologies are embedded in social structures which are themselves products of modern technologies.
>
> (Norgaard, 1994, p29)

This coevolutionary approach to historical explanation offers tremendous insights but does not lend itself to predicting the future, as in this theory there are no simple cause and effect relationships and so prediction becomes rather dangerous. However, Norgaard identifies five lessons from this understanding:

1. Experimentation should always be undertaken cautiously and on a small scale.
2. Experiments whose effects might be long lasting, for example disposal of nuclear waste, should be avoided.
3. Without cultural and biological diversity, coevolution is prone to stagnate.
4. All things are interconnected, so change tends to be evolutionary rather than abrupt or revolutionary.
5. The significant exploitation of hydrocarbons has disconnected cultural evolution from ecosystems, so the main priority of sustainable development must be to restore this connective relationship.

Working from a similar perspective, Cairns (2003 and 2004) sees sustainability as being too complex to allow scientific uncertainties to be reduced to a level that many decision-makers and managers would prefer. Strategies for sustainability need to be both top–down and bottom–up, ethically grounded in a language and literacy comprehensible to whatever the organizational level or geographical locality people find themselves living and working in. This will enable effective communication, social learning and leadership to emerge, hopefully effecting the paradigm shift in thought and action required. As Cairns (2004, p2) writes:

> The complex interactions of biology/ecology, economics, and technological and social factors must be understood and coped with in

> an ethical, sustainable way to save both natural systems and humankind. Ethical views must not alienate humankind from the natural world. Science has documented much of what is at risk and some of the actions needed to reduce risk. Instead of denigrating the knowledge (for example of global warming) and placing undue emphasis on the uncertainties (which always exist in science), leaders and citizens should give attention to those areas upon which mainstream science has reached a consensus. Unsustainable practices can be halted, but, even though remedies are known, they are not acted upon. It is not too late for a paradigm shift to occur.

For Ignacy Sachs, development is akin to liberation and transformation, particularly if understood as a self-organizing and intentional process freeing people from poverty and exploitation. Sachs, like the World Bank, recognizes that tradeoffs will occur, but argues that some are totally ethically unacceptable:

> Thus, for example, whole development is incompatible with economic growth achieved through increased social inequality and/or violation of democracy, even if its environmental impacts are kept under control. Environmental prudence, commendable as it is, cannot act as a substitute for social equity. Concern for the environment should not become a diversion from the paramount imperatives of social justice and full democracy, the two basic values of whole development.
>
> (Sachs 1999, p33)

Sustainable development is therefore multidimensional, encompassing social, ecological and economic goals and perspectives, and this breadth has led some critics to view the concept as vague, self-contradictory and incoherent, incapable of being put into practice. Consequently, Johnston et al (2007, p61) want to 'reclaim' the concept, rooting it in a theory and set of principles enabling development to be separated from 'the current exploitative economic paradigm' of economic growth. All that is required, suggest Johnston et al, is to articulate sustainability in terms of a robust set of principles and a practical operational framework relevant to both personal and organizations' actions.

Perhaps it is sociologist Blake Ratner's notion of sustainability as a 'dialogue of values' which constitutes the most fruitful way of engaging with, and understanding, the theories, values, perspectives and practices of sustainable development. Ratner identifies three basic tendencies in sustainable development practice, namely the technical, ethical and the dialogic:

> The sustainability concept is meaningful, therefore, not because it provides an encompassing solution to different notions of what is good, but for the way it brings such differences into a common field of dispute, dialogue and potential agreement as the basis of collective action.
>
> (Ratner 2004, p62)

Sustainable development and sustainability are dynamic concepts and processes. Meanings and practices change as the world changes, as our skills, knowledge and capabilities develop, and as communication and dialogue improves. At every spatial scale, from the neighbourhood to the global level, different interests will come together and sometimes collide, but it is only through discussion, debate, critical reflection, learning and dialogue that agreement and action can and will emerge. The achievement of the Rio and Johannesburg summits, and particularly the composition of the genuinely remarkable document known as *The Earth Charter* (Gorbachev, 2006), could only have been reached by people listening, talking and learning from one another – and being willing to do so. Thus for Baker (2006), it is probably better to talk about 'promoting' rather than

achieving sustainable development, as this enables us to attune ourselves to differing and emerging understandings, timescales and pathways across the world. The concept, then, is multifaceted because the issues, challenges and problems we confront are complex, complicated and various. Different countries exhibit different levels of development, have different values, cultures and traditions, are endowed with differing amounts of natural resources, and so have, certainly according to Brundtland, differentiating responsibilities in promoting and realizing sustainable development goals. Thus, despite all the criticisms of global summits and partnership projects as being muddled compromises or lost opportunities, this very heterogeneity has allowed a coming together and an identification of some common ground on which to build further action and agreement. In this way, sustainable development is similar to 'democracy' and 'justice' in being a concept which can be easily contested or dismissed as rather woolly. But who would really want to throw these out?

Case Study: Global Meets Local at Clayoquot Sound

Despite the slogans, banners and protests, it is sometimes difficult to see how the global meets the local, how abstract forces of supply and demand, of conflicts between the old and the new and the cultural and economic, have broader effects. The fierce struggles, conflicts, debates and dialogues surrounding the logging of the old growth forests on Vancouver Island in western Canada from the mid 1980s onwards shows how sustainable development frequently engages the local and global simultaneously, how ultimately the process is unavoidably political and unavoidably personal. At Clayoquot the interests of local businesses, the provincial government, native peoples and environmental activists combined with regional and global economic forces, with the needs and wants of individual and corporate consumers, and with the growing global concerns with wilderness preservation, environmental protection and the maintenance of community. The issues were (and are) far from simple, but through political action, global media debate and engaged dialogue, the concept of sustainable development was refined, applied and revised. Consequently, Clayoquot Sound is more than the active protests and the 800 or so arrests of 1993, the clear-cut logging practices of big corporations and the degrading of one of the most beautiful natural environments on the planet. 'Clayoquot Sound' involves whole networks of actors, values, spaces and places, compromises and power plays.

Although the physical action occurred in a remote rural locality, the conflict was also quite urban. The major logging company had its headquarters in Vancouver, profits and products went to Toronto and Los Angeles, the Ministry of Forests was located in Victoria, and the environmentalists pitched their media messages to audiences in New York and London. It demonstrated that if rural and urban areas are to be sustainable, then linear production processes relying on a one-way extraction of natural resources and the extensive waste of unused material, have to be replaced by a more circular model, where waste is reused and recycled – a resource for further productive activity. Clayoquot activists launched a global campaign to save other temperate rainforests. Ecotourism was identi-

fied as the economic saviour of the area, enabling business to become aligned with the environmentalists, but the indigenous people of the locality, the Nuu-chah-nulth, feared their place-based cultural heritage would be overrun by more outsiders. As Warren Magnussen and Karena Shaw (2002, pp7–8) argue in *A Political Space: Reading the Global through Clayoquot Sound*, Clayoquot is a site where many phenomena converge:

- the globalization of political struggle through the mass media, cultural exchanges and international trade relations;
- the shift from an industrial (logging jobs) to post-industrial economy (tourism jobs), dependent on information technology and orientated towards the consumption of signs, of the aesthetic natural beauty of the Sound, in the global cultural marketplace to attract tourists and their dollars;
- ethno-nationalist resistance to the homogenizing impact of the capitalist economy and Western culture;
- the global challenge to patriarchal gender relations, as well as the norms of sexual and personal identity, for example female corporate spokespeople feminizing the image of an international logging company;
- the rise of indigenous peoples as credible claimants to sovereignty under international law (British Columbia was not colonized through treaty negotiations);
- the threat of environmental calamity and the concomitant rise of a globalized environmental movement;
- the continuing critique of state institutions for their political/democratic inadequacy as a result of their actions, for example closed meetings and exclusion of elected representatives; and
- the problematization of science as a contested and highly politicized way of knowing the world (Whose science?, In whose interests?, incorporation of traditional ecological knowledge in scientific deliberations, and so on), through its differing and competing methodologies and truth claims.

Sandilands (2002) suggests the experience of Clayoquot offers lessons in the delicate move towards *dialogue* and the recognition of pragmatic *hybridity*. In seeing a future for the locality in tourism, both extractive industry and wilderness were rejected, as a *multiplicity* of interests, interpretations, perspectives, actions and goals became entwined in the unending politics of sustainable development. A Memorandum of Understanding between the major conflicting parties was signed in 1999, and the United Nations designated the area a Biosphere Reserve in 2000. This settled some of the issues, but not all. In March 2007, the Friends of Clayoquot Sound announced that environmental groups and the Tla-o-qui-aht First Nation people had won a five-year moratorium on logging in Clayoquot Sound's intact Upper Kennedy Valley (around 4000 hectares), despite the provincial government's 2006 logging plan, which had included this area and where 75 per cent of the original forest had already been clear-cut. At the time of writing, this deferral allows time for the Tla-o-qui-aht to develop their own land-use plan for the entire Kennedy watershed, even though the logging of 7000 hectares further downstream is still scheduled to start in 2008.

The dialogue and the struggle continue. But the rainforests in the developed and developing worlds remain threatened by economic globalization.

Thinking Questions

1. Examine your own everyday activities, purchases, enjoyments, work, travel, holidays and so on. In what ways is globalization part of our everyday life experience? Note down examples from your own work and life experience.
2. How would you characterize your own view on globalization and sustainability?
3. What is the lasting value of the big international conferences on sustainable development?
4. What is the significance of the Millennium Development Goals?
5. What are the advantages and disadvantages of conceiving sustainable development as a dialogue of values?

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