ENVIRONMENTAL PHILOSOPHY

SUSTAINABLE DEVELOPMENT

Part 1

Development

Generally, the concept of sustainable development designates an approach to tackling environmental problems. In this lecture we will be concerned with the concept of sustainable development and related debates. In order to think about sustainable development, it is wise to first consider the notion of 'development'. The meaning of 'development', where this is short for 'social and economic development', is best approached through looking at the contrasting notion of 'under-development'. Under-development is a state of affairs in which most of the following evils reinforce one another: poverty; malnutrition; high rate of infant morality; low life expectancy; limited access to health care; illiteracy; and poor productivity (Attfield, 1999, p.98; Attfield, 1986, p.36). Usually these evils are accompanied by poor supplies of fresh water, bad sanitation and limited access to electricity.

In contrast to all this, development can be seen as a process that moves away from these states of affairs to better levels of life-expectancy, health, literacy and productivity (Attfield, 1999, p.98). Indeed, development is a process whereby a society is attaining better levels of all these things, provided it also involves some degree of autonomy and self-help on the part of the society in question (since a society might become, say, oil rich and overcome underdevelopment through exporting oil, only to return to underdevelopment when the oil runs dry), and some enhancement of social justice (see Attfield, 1986, pp.37-38). Robin Attfield defines development as follows: 'An economic, social, cultural and political process, which aims at the constant enhancement of the well-being of all the inhabitants of a territory on the basis of their active, free and meaningful participation in this process and in the distribution of the resulting benefits to satisfy their basic needs, and / or the state of society that results from this process' (2003, p.192). In part two of this lecture we shall see that *Our Common Future*, known as the 'Brundtland report', puts forward a concept of development similar to Attfield's in that it too is concerned with meeting basic needs.

Development can be distinguished from growth, as measured simply by gross national product (GNP). GNP measures economic activity, and measures much economic activity that is not conducive to development, and it takes no account of economic activity where no money changes hands. Attfield argues that rather than economic growth being the characteristic feature of development, 'the defining characteristic of a developing society

would be… the satisfaction of basic needs, including needs for individual autonomy and for making meaningful contributions to society' (1999, p.98). For Attfield, the process of development 'typically involves self-determination and self-help on the part of the society as a whole, and active participation of the individual members' (ibid., p.99). Seen in this way, it would to do away with some of the more obvious inequalities (ibid., p.99).

Many argue in favour of development, including Nigel Dower who suggests that development is necessarily desirable, and thus that nothing less than desirable can be regarded as development (see Dower, 1998, ch.8). But there have been many critics of 'development'. Such critics included Gustavo Esteva who argues that 'development' derives from the Enlightenment notion of inevitable progress, and that the meaning of the notion was influenced by Harry Truman's desire to spread technology and industrialism throughout what he called the 'under-developed' world. In 1949 Truman made a speech that, Esteva believes, marked a new era for the world – 'the era of development' (Esteva, 1992, p.6):

> We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. The old imperialism—exploitation for foreign profit—has no place in our plans. What we envisage is a program of development, based on the concepts of democratic fair dealing (Harry Truman, quoted by Esteva, 1992, p.6).

Esteva argues that there has followed a sequence of neo-colonialist policies and slogans, imposed on behalf of powerful countries and corporations by global development agencies, such as the World Bank and IMF: human-centred development, redevelopment, integrated development, endogenous development, and now sustainable development (Esteva, 1992, pp.15-16). Esteva calls for political action to save the South from such impositions (Esteva, 1992, p.22).

Vandana Shiva, an Indian feminist, is another opponent of development, or more specifically, an opponent of notions of development that disguise exploitation. She rejects 'new forms of dominance' imposed in the name of development (1988, p.4), which undermine the interdependence of subsistence society. As for Esteva, development is held to continue colonialism, but is also held to promote patriarchy, and to degrade and exploit 'women, nature and subjugated cultures, which is why, throughout the Third World, women, peasants and tribals are struggling for liberation from 'development' just as they earlier struggled for liberation from colonisation' (Shiva, 1988, p.2).

But if we are interested in genuine development and alleviating the aforementioned evils (poverty, malnutrition, high rate of infant morality, low life expectancy, limited access to health care, illiteracy, and poor productivity) we should of course move away from the dangers of policies that stress the economic abilities of large organisations, etc, and we do need to be aware of the dangers of American hegemony – or dominance – stressed by Esteva, as well as of the problems involved in, for example, forms of agriculture that put power into the hands of others. But we can criticise self-interested, exploitative and neo-colonist policies without criticising the notion of development itself. Genuine

development is often to be contrasted with the policies of the IMF, etc., and women's groups often play a leading part in development (women, for example, have been extremely influential in the success of credit unions). While so-called 'development' (mega-projects, etc.) is sometimes imposed, this does not negate the human needs and interests which require genuine, autonomous, democratic development. As Robert Garner points out, for most people global inequalities convey the 'inevitability and desirability of Third World development' (1996, p.125). Of course, genuine development may require a restructuring of the international economic systems, as Paul Ekins argues (see Ekins, 1993, ch.6), and if so, it is fraught with problems, but that does not make it misguided.

** The 'Study Exercises' attachment provides an exercise on development. This exercise involves considering a range of extracts of development and answering related questions.*

Part Two

Sustainable development

The concept of sustainability encompasses the idea of something being practised or maintained over time. In the environmental philosophy literature, the concept is used in relation to ecological limits, where practices or systems are deemed sustainable if they are capable of being maintained indefinitely without undermining ecological systems. Attfield defines sustainability as follows:

> The sustainability of a practice or a society is basically its capacity to be practised or maintained indefinitely, and the main point of the early advocacy of sustainable forms of society (on the part of Herman Daly and others [the ideas of whom we will discuss below]) was the importance of recognizing limits to certain forms of growth, including ecological limits. If sustainable practices are to be capable of forming part of a sustainable world system, then as well as not undermining themselves they will not undermine other practises or systems that would otherwise be sustainable, including a potentially sustainable global system; otherwise there would be nothing unsustainable about an internally sustainable society that exported unsustainability to other parts of the world, whether in the form of pollution or of economic exploitation (Attfield, 2003, p.127).

Whether or not a practice or system is sustainable on a global scale will depend on whether it undermines sustainability elsewhere. Localised attempts at achieving sustainability are all well and good, but if they result in, say, harmful pollution in other parts of the world or destruction of rainforests in other countries then it is reasonable to say that they cannot be said to be part of a sustainable world system.

Our Common Future, the 'Brundtland report', published in 1987, was the result of research at international level by the World Commission on Environment and Development. The Brundtland report combined development with sustainability, and

embodied important proposals for a sustainable world, both for national governments and for international cooperation. (In 1992 its message was adopted at Rio de Janeiro by the United Nations Conference on Environment and Development.) In that report, the World Commission on Environment and Development defines 'sustainable development' as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (1987, p.8), and advocates adoption of sustainable processes of production (and levels of population) worldwide. While the definition itself does not mention environmental limits, the report does go on to recognise such limits. Later, in a report by the United Nations Programme (entitled *Caring for the Earth*), sustainable development was defined as 'improving the quality of life while living within the carrying capacity of ecosystems' (1991). Unlike the first definition, this definition omits talk of meeting needs, but does explicitly recognise environmental limits, and also relates development to quality of life (Attfield, 2003, 128). While both reports suggest that sustainable development is ecologically sustainable, the definitions they give of sustainable development leave the concept under-defined. Attfield talks of the 'undemandingness' of sustainable development as defined in the two definitions above, claiming that such undemandingness may explain why governments felt able to commit to sustainable development, even though they disagreed as to the detail of the content of the notion (ibid, p.128).

Such undemandingness, not surprisingly, has left the definitions open to interpretation, with some claiming that the concept can be interpreted so broadly as to render the concept an empty one, and others claiming that the concept is not a meaningless one, but is rather a contestable one (see Jacobs, 1999). However, in spite of disagreements surrounding the concept, Attfield argues that 'there is every reason to take its core to comprise varieties of development that are environmentally and socially sustainable, where 'development' is understood as defined in the United Nations Declaration… 'Development', that is, is understood here as a comprehensive economic, social, cultural and political process' (2003, p.129). A more demanding definition of sustainable development than the ones given in the two aforementioned definitions would make sustainable development more difficult to achieve in practice, but this does not mean that debates about how to come close to it in practice are not worth having (see Attfield, 2003, p.129).

Debates about the concept of sustainable development

Objections to sustainability have been launched from opposite directions. Wilfred Beckerman criticises the definition given in the Brundtland report, arguing that such a definition is useless since 'needs', mentioned in the definition, is such a subjective concept. Different people at different places and at different times 'will differ with respect to what 'needs' they regard as important'. As such, the claim that we should enable future generations to meet their needs 'does not provide any clear guidance' as to what has to be preserved in order that the future generations may actually meet their needs (Beckerman, 1994, p.194).

In addition to this problem, he argues that the concept of sustainable development can be presented in such a way that we end up with two different forms of the concept: a strong form and a weaker form. In its strong form it rejects the destruction of nonhuman species:

> The Brundtland report, for example, stated that 'The loss of plant and animal species can greatly limit the options for future generations; so sustainable development requires the conservation of plant and animals species'.
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> But one might ask, how far does the Brundtland report's injunction to conserve plant and animal species really go? Is one supposed to preserve all of them? And at what price?... Clearly such an absolutist concept of sustainable development is morally repugnant (ibid., p.194).

Beckerman claims that the strong form of sustainable development rejects any destruction of species or habitats, and thus prevents almost any sizable development, concluding that in its strong form it is morally unacceptable, impractical and even absurd. As he says, 'Given the acute poverty and environmental degradation in which a large part of the world's population live, one could not justify using up vast resources in an attempt to preserve from extinction, say, every one of the several million species of beetles that exist' (ibid., p.194).

He also criticises the notion of sustainable development in its weaker form. In its weaker form it allows for substitution of natural capital by human technology, just like traditional economics does:

> As soon as it became obvious that the 'strong' concept of sustainable development was morally repugnant… many environmentalists shifted their ground. A new version of the concept was adopted, known in the literature as 'weak' sustainability. This allows for some natural resources to be run down as long as adequate compensation is provided by increases in other resources, perhaps even in the form of man-made capital. But what constitutes adequate compensation?... The answer, it turned out, was that the acceptability of the substitution had to be judged by its contribution to sustaining human welfare.
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> This is clear from one of the latest definitions provided by David Pearce… His definition is that ''Sustainability'… implies something about maintaining the level of human well-being so that it might improve but never declines (or, not more than temporarily, anyway). Interpreted in this way, sustainable development becomes equivalent to some requirement that well-being does not decline through time' [Beckerman here cites Pearce, 1993, p.48].
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> The first important feature of this definition is that it is couched in terms of maintaining 'well-being'… a condition that is found in many definitions of sustainable development… This implies, for example, that sustainable development could include the replacement of natural capital by man-made capital, provided the increase in the later compensated future generations for any fall in their welfare that might have been caused by the depletion of natural capital. In other words, it allows for substitutability between different forms of natural capital and man-made capital, provided that, on balance, there is no decline in welfare…
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> For it appears now that what society should aim at is not 'sustainability', but the maximisation of welfare. In other words, it should pursue the old-fashioned economist's concept of 'optimality' (Beckerman, 1994, p.195).

David Pearce's weak definition of sustainability requires maintaining levels of human well-being so that it never decreases though time (see Pearce, 1993, p.48; and Pearce et al, 1989, p.48), and Beckerman believes that this implies replacement of natural resources by man-made capital as long as such replacement is not detrimental to maintaining levels of well-being. Natural resources can be run down as long as adequate compensation to future generations is provided by increases in other resources. Any substitution of natural resources is judged as adequate by its contribution to sustaining human welfare.

So it seems, on this definition, that society should aim at maximising human welfare, rather than 'sustainability' (Beckerman, 1994, p.195), and there no longer seems to be a role for 'sustainability' as a separate policy independent of policies to maximise, or at least stabilise, welfare. Indeed, as Beckerman argues, 'in so far as society seeks to maximise welfare, the sustainability condition becomes redundant and cannot even be treated as a 'constraint'' (ibid., p.205). This all suggests that, in its weak form, sustainable development is inadequately sensitive to the idea that development, or, in particular, policies that aim to maximise or maintain welfare levels, should be constrained in a way that takes into account ecological considerations. Besides this, we should note that a decrease in the level of well-being of some people in developed countries is something that may be required—not just temporarily but in the long-term—if we are interested in not undermining natural systems. There is another problem of which we should be aware, and this is to do with the fact that economic debates about weak sustainability tend to be strongly anthropocentric, with nonhuman creatures being discussed in terms of natural resources or natural capital. But this tendency ignores the fact that at least sentient creatures are beings with a good of their own and as such should not be deemed as things that can be substituted by man-made capital (Attfield, 2003, p.134).

Herman Daly claims that Beckerman is right about weak sustainability. But he argues that strong sustainability is not absurd. Remember, for Beckerman, in its strong form it rejects any destruction of species or habitats. Daly argues that strong sustainability is only absurd if interpreted as ultra-strong, claiming that advocates of sustainability can urge for something coherent and something which is far from absurd: development constrained, but not curtailed, by ecological preservation:

> I did not even find the word 'complementarity'… in the article [Beckerman's article], and that is the key to strong sustainability. If natural and man-made capital were substituted (weak sustainability) then neither could be a limiting factor. If, however, they are complements (strong sustainability), then the one in short supply is limiting… More and more it is remaining natural capital that now plays the role of limiting factor. The fish catch is not limited by fishing boats, but by populations of fish in the sea. Economic logic says to economise on and invest in the limiting factor. For this reason we put constraint on natural capital. Maximise current welfare subject to the constraint that natural capital be maintained intact over generations (Daly, 1994, p.50).

If manmade and natural capital are viewed as complements then the one in short supply, i.e., natural capital, is the limiting factor and is the one on which we should put

constraint. Indeed, it makes economic sense to put constraints on our use of natural capital so that it can be maintained for the future. Maximising present welfare is subject to such a constraint. Daly claims that in terms of renewable resources 'harvest rates should not exceed regeneration rates', and for non-renewable inputs, 'the rate of depletion should be equal to the rate at which renewable substitutes can be developed' (ibid., p.50). Developing renewable substitutes might involve, for example, using capital from petroleum depletion and investing it in new energy supplies and energy efficiency.

Daly criticises Beckerman for ignoring than manmade and natural resources are complementary, and believes that economists are mistaken in treating them as substitutes. Why does Daly see them as complementary? Well, firstly, historically, we have accumulated manmade capital 'precisely because it is complementary to natural capital'. Secondly, manmade capital is physical transformation of natural capital, and producing more man-made capital requires more natural capital. Thirdly, manmade capital is 'resources flow from raw material inputs [or natural inputs] into product outputs' (ibid., p.51). It is because of these three factors that the basic relation between manmade and natural capital is deemed a complementary one. The complementarity of them is obvious, say Daly. Indeed, what good is a saw with no timber? Or a fishing line with no fish? (ibid., p.51) And, as Daly says, 'As natural capital becomes more and more the limiting factor the importance of keeping it… intact increases' (ibid., p.53).

Daly's conclusion is that Beckerman's view of strong sustainability is a mistaken one (ibid., p.53). Strong sustainability, when not interpreted as ultra-strong, allows us to recognise limits to certain forms of development, including ecological limits, as well as limits to welfare maximisation.

A more radical conception of sustainable development

Sustainable development has been criticised for going nowhere near far enough in terms of radical change, and being compatible with business as usual (by, for example, Sharon Beder in *The Nature of Sustainable Development*, 1993). Let us first consider a quote from the World Commission on Environment and Development, which draws attention to the enormity of the problems we now face:

> Each year another 6 million hectares of productive dryland turns into a worthless desert… More that 11 millions hectares of forests are destroyed yearly… In Europe, acid rain precipitation kills forests and lakes… The burning of fossil fuels puts into the atmosphere carbon dioxide, which is causing global warming. This 'greenhouse effect' may by early next century have increased global temperature enough to shift agricultural production areas, raise sea levels to flood coastal cities, and disrupt national economies. Other industrial gases threaten to deplete the planet's protective ozone shield to such an extent that the number of human and animal cancers would rise sharply and the ocean's food chain would be disrupted. Industry and agriculture put toxic substances into the human food chain and into underground water tables beyond reach of cleansing (World Commission on Environment and Development, 1987, quoted by Beder, 1993, p.xi).

We should bear in mind that this description of the state of the planet was published in 1987. The situation we find ourselves in today is one in which we must act in order to prevent irreversible damage to ecological systems, and the current environmental crisis of which we find ourselves to be part suggests that we really do need an adequate conception of sustainable development. Problems and disagreements about what the concept means do not mean that we do not need such a concept to guide action nor that the concept is meaningless.

But development is a concept easily taken over by corporations, and sustainability is something they can favour if it means regular profits. As Beder says, 'Sustainable development has succeeded in arenas of influence denied to first wave environmentalism [characterised by Beder as being 'anti-development'] because of its central idea that environmental protection is not necessarily opposed to development. The concept of sustainable development accommodates economic growth, business interests and the free market, and therefore does not threaten the power structure of modern industrial societies' (p.xii). Indeed, those with vested interests in promoting their corporations and businesses as sustainable or ecologically conscious define sustainable development to suit their own interests (see Beder, p.xiii). Meanwhile habitats and large tracts of nature are destroyed at an alarming rate and the environment is poisoned. So it seems that something much more radical than the business as usual approach is needed.

The authors of *Limits to Growth* have argued for just that, claiming that the drive for economic growth, together with the growth of the world's population, is likely to have disastrous consequences on a global scale, including an eventual uncontrollable increase in the death rate (caused by a lack of food and an increase in pollution) and a decline in industrial capacity. They claim that what is needed to avoid the fatal consequences of reaching the limits to growth is a move towards a global sustainable world system in which world population and capital become stabilised. Such a move would involve considerable effort on the part of mankind and no less than profound changes to social and economic structures both locally and worldwide, as well as self-imposed, deliberate limits to growth (Meadows et al, 1972). But, as Attfield notes, 'not all ecological problems are due to growth, for some are due either to poverty or to passivity', and very strict rules about ceilings to growth could even prevent some sustainable solutions from being introduced, including investments in certain developments aimed at overcoming poverty (Attfield, 2003, p.20). Attfield informatively argues that 'particular kinds of growth need to be considered case by case; some kinds, such as growth in global warming, need to be halted and if possible reversed, while others (such as investment in agriculture, water supply and energy generation from renewable resources) may actually be necessary in the cause of sustainable solutions' (ibid., p.20).

There are two important issues underlying the debates about sustainable development and what it involves: one is whether to discount future costs and benefits, as orthodox free-market economics does, to the detriment of people over 50 years in the future. If sustainable development diverges from this then it also diverges from the practice both of conventional business and of governments. The other is whether it takes nonhuman interests into account, unlike orthodox economics. While some supporters of sustainable

development are anthropocentric, and seek to conserve ecosystems insofar as human interests require, others seek to preserve the habitats of as many creatures as possible, and regard this as a constraint on what we deem it permissible to do to the natural world and its inhabitants in the name of human interests.

Relatedly, it should be said that defenders of sustainable development need not conform to global expectations or practices. They are free to recognise that future costs and benefits are not less important than present ones and that nonhuman interests matter directly. They are also free to recognise a global dimension to sustainable development in two regards. Firstly, they are free to recognise that local or regional systems that undermine sustainability elsewhere (for example, though acid rain or carbon emissions), are not sustainable – only systems with global sustainability are sustainable at all. Secondly, although global equity is not entailed by sustainability (for a sustainable system could be inequitable), they are related, in that extreme inequity is unsustainable, and a sustainable world system would involve more or less equitable international economic and political relations (see Attfield, 2003, ch.5).

In addition, sustainable development as a notion need not be understood solely in relation to ecological sustainability and social development. The concept of sustainable development can also encompass, as Attfield plausibly argues, 'the capacities of human beings to develop themselves and their societies autonomously. Without this basis, programme and policies of environmental protection are likely to founder, something which applies to population policies too. Given this basis, and given an awareness of nature's multiple value, development has good prospects of becoming and remaining sustainable, environmentally as well as socially' (2003, p.144).

Attfield certainly provides us with a more demanding and detailed notion of sustainable development than that which is provided in the Brundtland report. Let us here remind ourselves of his definitions of sustainability and of development; definitions which, of course, are integral to his conceptualisation of sustainable development:

Sustainability: 'A practise or social system is sustainable if it is capable of being practised or maintained indefinitely, regard being had to ecological limits. Sustainable practises and systems must also be possible parts of a sustainable world system; hence, as well as not undermining themselves, they will not undermine other practises or systems that would otherwise be sustainable' (Attfield, 2003, p.201).

Development: 'An economic, social, cultural and political process, which aims at the constant enhancement of the well-being of all the inhabitants of a territory on the basis of their active, free and meaningful participation in this process and in the distribution of the resulting benefits to satisfy their basic needs, and / or the state of society that results from this process' (ibid., p.192).

In the light of these definitions, we have a notion of sustainable development which recognises that sustainable development, as related to ecological limits, is as much tied to social, economic, cultural and political concerns as it is to ecological ones.

Exercise:
Watch the short interview to Robin Attfield on sustainable development, during the VI International Conference on Ethics and Environmental Policies which took place in Padova during 23-25 October 2008. http://www.youtube.com/watch?v=9S5TCdWEXOs

We might here ask what sustainable development policies might look like in practice. Attfield argues that they would be integrated polices—integrating a number of areas of concern. They would include provision for literacy, healthcare and family planning, as well as opportunities for environmental education, 'itself vital if environmental sustainability (including protection of wild species and habitats) is to be attainable' (Attfield, 2003, p.140). Population policies should not be implemented as isolated policies, but should be part of sustainable development policies and would involve education, especially of girls and women. Further, '[S]uch policies are most likely to be effective where healthcare provision and other social services mean that parents no longer need a large family to ensure that they will have surviving children to care for them in old age…; and people can fairly be expected to participate in such policies only in this kind of social environment' (ibid., p.140).

** The 'Study Exercises' attachment provides an exercise in sustainable development.*

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After reading this lecture you should have an understanding of what is meant by 'development' and 'sustainability', as well as an understanding of the concept of sustainable development. In particular, you should be familiar with Attfield's conceptualisation of sustainable development, as well as familiar with debates about sustainable development, including debates about how it should best be conceptualised. Finally, you should be able to form a view on what sustainable development policies might involve in practice.

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