

What Does ‘Sustainable Development’ Mean?

People say that money is not the key to happiness but I always figured if you have enough money, you can have a key made.

– Joan Rivers

Introduction

The starting point for the concept of sustainable development was the aim to integrate environmental considerations into economic policy. More profoundly, it was conceived as an attempt to bring environmentalist ideas into the central area of policy, which in the modern world is economics. It was to be the ground on which the mainstream was to consider the environmentalist case.

The concept of sustainable development carefully balanced environmental concern with endorsement of economic growth, at least in the South. It was deliberately conceived as being something more palatable than the hardline environmentalist message. Rather than challenge the idea of growth directly, it sought to modify the kind of growth strategies that were pursued.

The result of this aim for balance between environmental and economic concerns was a consensus on a definition that was at the very least rather vague. Some have seen the vagueness as meaninglessness: you can claim anything as part of sustainable development. Another view is that although there is much disagreement at present, with time the meaning will become clearer as people learn a new environmental language. Others have argued that sustainability is like other important political ideas, such as liberty and justice, which are ‘contestable concepts’. That people do not agree on the exact meaning does not mean that there is no meaning at all. They argue that sustainable development is a concept that has succeeded in moving the debate forward and towards the environmentalist position.

Underlying the problem is disagreement about what ‘development’ means. Is it about economic growth and industrialization, as it is commonly seen, or is it about non-material improvement in life? The second part of the chapter will discuss different ideas about how development itself should be seen. It will

describe ideas about human development and the apparent paradox that economic development does not seem to make people happier. It will conclude that the whole emphasis on development in terms of economic growth is misplaced.

Defining sustainable development

‘Sustainable development’ is a meeting point for environmentalists and developers. The environmental scientist Tim O’Riordan argued in his 1988 essay ‘The Politics of Sustainability’ that the reason for the popularity of the term sustainable development lay in the way that it could be used both by environmentalists, emphasizing the sustainable part, and by developers, emphasizing the development part.¹ The definition of sustainable development given by the Brundtland Commission, ‘development which meets the needs of the present without sacrificing the ability of future generations to meet their needs’, is often criticized as hopelessly vague or, in the language of experts, non-operationalizable. In his 1988 essay, O’Riordan expressed the concern that the vagueness of the definition would allow people to claim almost anything as part of ‘sustainable development’, reducing the term to meaninglessness.

Criticism of the vagueness of Brundtland’s definition is accepted to some extent by Nitin Desai. When I asked him for his personal definition of sustainable development, he said:

Having been guilty of many, including the ones you see in the Brundtland Report, I hesitate to add yet another. And I would urge at this point, the issue is not defining sustainable development, but understanding it. Take the word ‘development’ itself. The value of any definition of development is simply the clue that it gives to the moral premises of the person who’s giving the definition. So one person will describe development in terms of improving prospects for human beings, human resource development. Someone else will describe it in terms of growth. They are not really very valuable as operational definitions. It’s not as if someone decides ‘I want development. Now let me find out what it is’. That’s never the way things work... Definitions are useful only for the clue that they give you for the premises on which somebody works. If you can’t define development adequately, how can you define sustainable development in a simple formulation?

Desai makes an important point. The problem in agreeing on the meaning of sustainable development is not fundamentally about agreeing upon a precise definition, but about agreeing upon the *values* that would underlie any such definition.

Sustainability or sustainable development?

The degree of difference about values becomes apparent when you consider another question: are sustainability and sustainable development the same thing, or are they different? This is a strange question to have to ask. It seems obvious that they must be different because otherwise the word ‘development’ would be entirely superfluous, but it is politically important for many people to avoid making a distinction. Making a distinction drives a wedge into the consensus that formed the basis of the Brundtland Report and Agenda 21 around the mutual need for environmental protection and development. ‘Sustainable development’ is the cornerstone of that consensus. In Agenda 21 the terms ‘sustainability’ and ‘sustainable development’ were used interchangeably.

Tim O’Riordan drew a distinction between sustainability and sustainable development.² He saw sustainable development as a term that ultimately gave priority to development, while the idea of sustainability was primarily about the environment. His analysis is rather borne out by Nitin Desai:

Maybe I could give you an insight as to how this [concept of sustainable development] appeared in the Brundtland Report... round the time I was brought in there was a feeling that the issue of development was not receiving sufficient attention, that environmental management would stop the very necessary growth which was required in developing countries in order to meet some very basic needs... The notion of sustainable development entered the Brundtland Commission basically as an attempt to find the meeting ground from a perception which saw environmental matters essentially as matters which controlled towards a perception which saw the issue more in terms of redirecting growth. If you look carefully at that chapter of Brundtland which talks about sustainable development, and look also at the fine print in it, not just the famous definition which everybody comes up with. What were the components of sustainable development which were spoken of there? And you will see that it is an attempt essentially at talking in terms of redirecting development and growth, rather than stopping it. Because it recognises very clearly that you must meet people’s needs.

The identification of sustainable development with the growth agenda has made radical environmentalists deeply suspicious of it. The acceptance of the concept of ‘sustainable development’ by governments and other institutions seen as representing the status quo fuelled the belief among radical environmentalists that the whole idea is a smokescreen.³

Linguistic confusion

Is sustainable development a meaningless concept? Donella Meadows said:

We're struggling for the language now for a whole set of concepts that are urgent in our conversation that hadn't been while the world was unfull... We didn't need all this language about limits and sustainability and our language is now very much lacking... Sustainability is my word for the moment to talk about what I do. Not sustainable development, and Lord knows not sustainable growth. I mean Herman Daly's very clear, very strict definition. You have stable population, you have stable throughput and you have that stable throughput for each source and sink below its limits. To me that's sustainable society. That's a physical definition... Then we have social sustainability, the question of decent human lives and justice... Sustainability means meeting those physical requirements; and beyond that, meeting those social requirements that have to be met so that the system doesn't blow itself apart socially.

I'm very aware that not everybody uses the word in those ways... The Eskimos with all their supposed words for snow needed them and pointed to this kind of snow – you used this word, and that kind of snow, you used that word. Often enough that everyone had a shared experience of snow X and snow Y and snow Z. And then they didn't have to go through all the rigmarole, but for a while they had to. And that's where we are right now... It's a mess. But social transformations are messy.

That last sentence of Donella Meadows's is particularly worth bearing in mind. There has been disagreement and confusion, but it may not be a permanent state of affairs.

A 'contestable concept'?

Another view is that of Michael Jacobs in his book *The Green Economy*.⁴ He argues that sustainable development is a 'contestable concept' – one that affords a variety of competing interpretations or conceptions: 'Many political objectives are of this kind: liberty, social justice and democracy, for example. These concepts have basic meanings and almost everyone is in favour of them, but deep conflicts remain about how they should be understood and what they imply for policy.'⁵

That something is a contestable concept does not mean that it has no meaning at all. Words have meanings when there is a consensus among a language community about what they mean. You cannot be like Humpty-Dumpty in *Alice Through the Looking-Glass*: "When I use a word," said Humpty-Dumpty in a scornful tone, "it means what I want it to mean, neither more nor less."⁶ People do try to distort the use of words for political ends, but

there are limits to how far it is possible to succeed in that. Very few people believed that the German Democratic Republic really was a democracy.

What kind of definition?

How tightly is it possible to define legitimate use of the term sustainability? Should priority be granted to physical or social criteria? Let me quote the sentences immediately after the Brundtland Commission's famous definition:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

Thus the goals of economic and social development must be defined in terms of sustainability in all countries – developed or developing, market-oriented or centrally planned. Interpretations will vary, but must share certain general features and must flow from a consensus on the basic concept of sustainable development and on a broad strategic framework for achieving it.

Development involves a progressive transformation of economy and society. A development path that is sustainable in a physical sense could theoretically be pursued even in a rigid social and political setting. But physical sustainability cannot be secured unless development policies pay attention to such considerations as changes in access to resources and the distribution of costs and benefits. Even the narrow notion of physical sustainability implies a concern for social equity between generations, a concern that must logically be extended to equity within each generation.⁷

In this crucial passage, Brundtland seems to be identifying the crucial elements of sustainable development as meeting basic needs, recognizing environmental limits, and the principles of intergenerational and intragenerational equity.

In that sense, sustainable development is not such a vague idea as it is sometimes accused of being. The problem of actually operationalizing sustainable development remains, however. The difficulty in giving an operational definition of sustainable development, or even in reaching agreement on what are the key elements of the idea, lies in the fusion of two concerns that pull in somewhat different directions: the environmental and the social.

The notion of needs leads to Brundtland's concern for intragenerational equity. The notion of limits underlies Brundtland's concern for intergenerational

equity. Gandhi is supposed to have said: 'The world has enough for everyone's need, but not enough for everyone's greed.' As David Pearce pointed out, the biggest obstacle for any attempt to operationalize Brundtland's definition of sustainable development is the seeming impossibility of determining what exactly are 'needs'.⁸ It is not necessary to follow the economist's view that no distinction can be made between wants and needs, to accept that the distinction is a difficult one. Is air conditioning a need in very hot and humid climates? Are fresh vegetables in winter a need? They are things that many people have managed without for a very long time and which are environmentally costly, but which people find very beneficial.

Since sustainable development as presently defined seems to be non-operationalizable, is it of any value? I spoke to one initial critic who had been won round to the usefulness of the idea of sustainable development. The Dutch economist Hans Opschoor told me how he had been at a symposium on the Brundtland Report shortly after it came out. He had intended to give a talk criticizing the concept of sustainable development for being vague, non-operationalizable and potentially a cover for all sorts of bad things. Jan Pronk, then a Dutch member of parliament and later Environment Minister, sat next to him at the table waiting for his turn to speak. Pronk looked at Opschoor's notes and told him that if he said what he was planning to, he would be assisting in torpedoing a concept that would have international policy implications. So Opschoor changed his presentation and said that although it was hard to make operational, he was not prepared to reject the concept yet. He told me that he was glad he had done that because it had turned out to be a way to get almost 200 countries together to discuss the issues and he could not think of another way that would have been as effective.

What does 'development' mean?

A very important aspect of the difficulty in defining sustainable development is that, as Nitin Desai pointed out, people do not agree on what they mean by 'development'. Is it about human development by improving education and health, or about material consumption through economic growth?

The goal of 'development' was first formally enunciated by President Truman in 1949. The objective was generally seen in terms of increasing that newly invented measure, GNP. For the first couple of decades development was pursued through state-directed industrialization. In the newly independent countries, some were more 'socialist' and emphasized state ownership of most of the economy, while others were more 'capitalist' and allowed extensive private ownership. But in both cases an emphasis was placed on the role of the state in promoting industrialization. Another important aspect of that development model was an emphasis on import substitution. Colonialism had made these countries concentrate on exporting commodities, such as cash crops or raw

materials. They were almost totally dependent on imports for manufactured goods. The idea was to increase national self-sufficiency by creating an industrial sector so that less had to be imported, and instead goods could be exported. In later versions, the emphasis switched from import substitution to export oriented growth.

The idea was that the available capital (frequently from foreign aid) should be concentrated. The industries created would kick-start a wider process of industrialization that would 'take off' and become self-sustaining. The theory also held that the wealth created from growth should be concentrated so that it would be invested in productive activities enabling 'take off', rather than be diverted to directly assist the poor. Inequality of incomes would increase for several decades as the society moved from being rural to urban. Only as industrialization became predominant would inequality decrease again. This 'Kuznets curve' (named after the Nobel Prize-winning economist Simon Kuznets) was held to have been the pattern that the developed countries had followed, so it must also be the pattern that developing countries would have to follow.

In the 1960s, doubts about the model began to set in. Although economic growth was taking place, it was not bringing tangible benefits to the poor, and was often even leading to their further impoverishment. Only in countries that took deliberate steps to promote equality through land reform and investment in mass education and health care was the condition of the poor improving. Millions of people from the expanding rural population were migrating to the cities where resources had been concentrated, in a desperate, and usually unsuccessful, search for work. The emphasis on economic growth had overlooked other aspects of social progress. The problem was initially seen as simply lack of jobs, but it was realized by the 1970s that the poor were held back by lack of education, bad health and nutrition, and policies that favoured the elite. A new approach was taken up by the United Nations, based around social inclusion, promoting equity and fulfilling human potential. The 'Basic Needs' approach to development became fashionable in the mid-1970s. It would target meeting the basic needs of the billion people already in absolute poverty. There were basic material needs in terms of food, education, health, housing and sanitation. There were also non-material needs such as fundamental human rights, participation and self-reliance. The approach was taken up by many governments and even by the World Bank for a while. However, the practice tended to concentrate on top-down state provision of basic public services, rather than the non-material aspects to empower the poor themselves.

The Basic Needs approach was quickly swept away by events. The debt crisis that emerged at the beginning of the 1980s created a strong pressure to pay the loans by reducing public expenditure. The IMF and World Bank made such cuts a condition of further loans, as was described in the last chapter. They went on to insist on 'structural adjustment': an economic realignment along free market lines, which involved reducing the role of the state, removing subsidies, liberalizing

prices, privatizing industries and opening economies to international trade and finance. The aim of all this was to increase economic growth. It was asserted that the benefits of the growth would eventually 'trickle down' to the poor.

Although the 'Washington consensus' of the IMF and World Bank dictated policy, the basic needs approach continued a kind of semi-underground existence in the 1980s. The Brundtland report put meeting basic needs at the forefront of its definition of sustainable development, although the report simultaneously placed very substantial importance on economic growth (an example of Brundtland's tendency to try to be all things to all people).

Human development

A new alternative development model came to prominence in the 1990s – 'human development'. It had originated with the Indian economist Amartya Sen, who was to win the 1998 economics Nobel Prize for his work, and was taken up by the United Nations Development Programme (UNDP) in its annual *Human Development Report* from 1990. Human development judges a society's standard of living not just according to the average level of income, but according to people's capabilities to lead the lives they value. Commodities are not seen as something to be valued in themselves, but as a means of enhancing capabilities such as health, knowledge, self-respect and the ability to participate in society.

The UNDP's Human Development Index (HDI) combines statistics for life expectancy, literacy and income and ranks the countries of the world. Some countries with modest incomes, such as Costa Rica, Cuba and Sri Lanka, have life expectancy and literacy rates that rival those of Western countries. The part of the world that is most famous for a high level of human development despite low incomes is Kerala, the homeland of the peoples of the Malayalam nation, a state on the south-western coast of India. In terms of GNP per capita, it was the fourth poorest state in India, yet by the 1990s life expectancy was 73 years (compared with 61 in India as a whole and 76 in Britain and the United States) and adult literacy was 91 per cent (compared with 65 per cent in India as a whole and 99 per cent in most Western countries).

Another impressive statistic is Kerala's fertility rate of 1.7 children per family, the same as Britain, rather less than the United States' 2.1 children and much less than the Indian average of 3.1 children. As Sen notes, Kerala had a lower birth rate than China (1.9 children) and achieved its demographic transition in the 1980s both more rapidly than China and without any coercive measures.⁹

Like Costa Rica, Cuba and Sri Lanka, Kerala achieved this by investing much of what little money it had in providing basic health and education services. However, free market critics have argued that this state expenditure prevented private investment in economically productive activities and stalled growth. All these nations experienced rapid human development, but then experienced

economic stagnation. In the 1980s, the IMF forced debt-burdened Costa Rica and Sri Lanka to reduce their social expenditure in an attempt to revive their economies. Because of a shortage of money due to poor economic performance, Kerala also reduced its social expenditure in the 1980s, even though it was not under the tutelage of the IMF because it had not borrowed. Kerala later increased expenditure again.

Greens have frequently seen these nations as a model for the rest of the world, achieving much of what growth is supposed to bring in human terms, but without the material consumption and consequent environmental destruction. Sen and followers of the human development approach also see these nations as having experienced 'development' in a more real sense than countries like Brazil which have experienced economic growth, but had disappointing human development. There is a difference between Greens and the followers of the human development approach, however. Human development sees economic growth as a good, but a secondary one, while Greens are doubtful of economic growth at all. Some Greens have argued that Kerala and Sri Lanka are developed enough, even though the people have very little in material terms compared to those in the West. Others seem to have thought that a rather higher level of consumption was optimum, although the extremely high consumption levels of the West are seen as 'overdevelopment'.¹⁰

The 1996 *Human Development Report*¹¹ examined the economic growth and human development records of countries. It found that countries that experienced economic growth without human development in one decade did not grow or experience human development in the subsequent decade, while countries that experienced human development with little growth either increased economic growth in the subsequent decade or slipped back into little growth and slow human development. Some of the East Asian tiger economies are the classic example of countries that started with human development and slow growth, but moved into a phase of mutually reinforcing growth and human development in subsequent decades.

The East Asian model

East Asia has widely been seen by non-Green observers as the development model to be followed. For many years the World Bank claimed that its success showed the virtues of the free market approach to economic development. In reality, the East Asian countries had a great deal of state intervention in the economy and had protectionist trade policies to allow their infant industries to develop. In addition, they had invested in education and health and conducted land reform before they started to grow rapidly. Remarkably, because of redistributive measures inequality of wealth did not increase as East Asia grew (so much for the Kuznets curve). The World Bank only admitted that the East Asian countries had not been so free market in their approach after they ran into

economic difficulties in 1997. At the turn of the millennium, the World Bank also admitted that there was more to development than just free market prescriptions.¹² IMF studies have shown that liberalization and removing tariffs barriers have not actually led to growth in poor countries.¹³ However, the World Bank and the IMF continue to see growth as the primary objective, and human development as the means, while the UNDP has the opposite perspective.

How easy would it be for other countries to replicate East Asia's economic success? It seems that a crucial factor was early investment in human development and a preparedness to push through land reform. The land reform started rural development and, unlike in many countries, the rural population was not sacrificed to provide cheaper food for the urban population. However, the same sort of policies were also pursued in Costa Rica, Cuba, Sri Lanka and Kerala. The difference is that the East Asian tigers pursued more capitalist policies in other areas. However, Costa Rica and Sri Lanka pursued capitalist policies from the 1980s, but still did not grow rapidly. Sri Lanka was obviously held back by civil war and Costa Rica was hobbled by the crushing debt it had acquired.

Another factor in East Asia's rapid economic growth was its orientation towards exports to the West. Although it pursued protectionist policies, it was allowed access to Western, and particularly American, markets. South Korea and Taiwan in particular were very important US allies that received a great deal of aid and support in the Cold War. Sceptics have also pointed out that Hong Kong and Singapore were city states able to benefit from unusual trade opportunities. However, Malaysia and Indonesia, which grew less and later, did not have such exceptional advantages. Today's WTO rules do not allow countries to build up their infant industries behind protective tariff walls. But even if that was not so, not every country can export manufactured goods in the way that the Asian tigers have – there simply is not enough demand for such products. If every country did attempt to do that, they would have similar experience to the countries that followed IMF instructions to export more commodities – the additional competition for the market led to a dramatic fall in the prices they could get for their exports.

There is a more fundamental problem with the East Asian model, which is the terrible environmental cost it has carried. Development in East Asia has been accompanied by rampant deforestation, loss of habitat and pollution of the rivers, air and soil. It is sometimes argued that development follows the 'environmental Kuznets curve'. According to this theory, pollution starts out low, then it increases in the early stages of industrialization, before diminishing again as development moves into a less resource-intensive phase of 'post-industrial' growth.¹⁴ It is perfectly true that the early stages of industrialization are particularly resource intensive and polluting, but it is a mistake to believe that the *total* environmental impact of industrialized countries has diminished because the *local* environment is less obviously polluted in Manchester or

Pittsburgh today than it was a century ago. The environmental Kuznets curve is frequently asserted, but there is a distinct lack of evidence to support it.¹⁵ Certain kinds of pollution are less prevalent than they were because some processes have become cleaner, but also because the resources used come from further afield (for example, oil and gas from the Middle East rather than coal from Lancashire or Pennsylvania) and the impacts are out of sight, therefore out of mind. It is the case that in recent decades each extra percentage of economic growth has not meant an extra percentage of energy use, but energy use has only increased less rapidly, not decreased, and consumption of material resources continues to grow along with GNP. New technologies that appear 'clean' to the consumer can involve enormous environmental impacts upstream and downstream. Think of all the toxic chemicals and heavy metals that go into the production of computers and other electronic products. They are not only hazardous for those who handle them in manufacture or after they have been thrown away; those metals have to be mined and refined. It has been estimated that the production of a desktop computer involves the movement of 14 tonnes of solid materials – almost as much as a car does.¹⁶ That is not necessarily to say that information and communications technology does not have the potential to increase eco-efficiency, but it is not doing so in its present form.

The development path that the West has followed and that East Asia is following is an environmentally unsustainable one. The deeper philosophical question that the observation leads to is whether the response should be to try to achieve wealth in a more environmentally sustainable manner, or to abandon the pursuit of wealth itself. Many Greens have argued that the affluent consumer society does not truly lead to happiness anyway, and they are backed up by the findings of social scientists.

Does material wealth bring happiness?

Western societies have become much wealthier in material terms, yet studies show that people are no happier than they were 50 years ago. Surveys asking people how happy they are may sound strange, but it has been shown that individuals' assessments of how happy they are match well with the judgements of those around them and with physiological indicators of their level of contentment or stress.

In Japan between 1958 and 1990, incomes increased five-fold from developing country levels to rival those in the United States, yet the people apparently became no happier. Some international comparisons suggest that average levels of happiness in a country do seem to rise as average incomes increase, but that even then this effect wears off once a country reaches the rather modest income level found in countries like Mexico and Malaysia today. However, richer people in each society tend to report slightly greater levels of happiness than poorer people. Societies with more equal distributions of wealth

tend to be happier than those with less equal ones. That is, because once basic material needs have been met what makes people happy or unhappy is the comparison with other people around them, rather than the absolute level of their consumption. When hardly anybody else has a mobile phone, possessing one is a status symbol that makes you feel superior. When everyone else has a mobile phone, you feel deprived if you don't have one too. When everybody has a mobile phone, nobody feels happier than they did before. Economic growth itself does not seem to bring happiness, except very temporarily. After a short time, people get used to their new standard of living and go back to being as (un)happy as they were before, but at a higher level of consumption.¹⁷

This argument leads to the conclusion that much of what is conventionally called 'development' is really about joining a rat race of meaningless additional consumption. Unfortunately, the buzz people get from 'retail therapy' is much like the high from cocaine; the pleasure may be short-lived, but that doesn't stop it being highly addictive. Indeed, it is the short-lived nature of the pleasure that makes it so addictive. And like cocaine, the addiction leads to problems of its own.

Clearly, there are genuine benefits to be had from enabling people to meet their basic material needs and from promoting human development. But the conventional development model confuses improving quality of life with achieving an affluent consumer lifestyle. If the development in 'sustainable development' was used to refer to meeting basic needs, as it was in the original Brundtland definition, then it would not be so controversial among environmentalists and Greens. However, 'sustainable development' is very frequently used to refer to old-fashioned development through economic growth, while paying lip service to concern about the environment. The emphasis elsewhere in the Brundtland report on economic growth, even in the already affluent West, contributed to that tendency.

Over the years since UNCED, 'sustainable development' has become a less and less fashionable expression. The vacuity of the way it is so often used as a euphemism for growth for its own sake has become widely known. Environmentalists never really liked the phrase, but they took advantage of its endorsement by the establishment to start talking more and more about 'sustainability'. In the last few years, increasingly even politicians talk about sustainability. The next chapter will turn from development to examine the concept of sustainability itself.

Taking Sustainability into Economics

If economists could manage to get themselves thought of as humble, competent people on a level with dentists, that would be splendid.

— John Maynard Keynes

Introduction

One of the most telling criticisms of conventional economics which environmentalists have been making since the time of *The Limits to Growth* is that in calculating GNP statistics, economists treat the consumption of the Earth's capital as if it were income.

Many economic definitions of 'sustainability' start from this point. The idea has been that a state of sustainability would be achieved if capital was non-declining. It is not so simple, though. There is controversy about whether to consider human-made capital and natural capital together (weak sustainability) or separately (strong sustainability). If they are counted together then increases in human-made capital can compensate for running down natural capital. Is that legitimate? Are the two kinds of capital substitutable in that way?

The question turns largely on the issue of the extent to which technology can compensate for the loss of natural resources. Weak sustainability assumes almost infinite substitutability by technology, an assumption which environmentalists regard with scepticism. Strong sustainability also assumes some substitutability, however. The difficulty is that any assumption about substitutability is ultimately rather arbitrary.

The second part of the chapter turns to a rather different approach to sustainability. The concept of 'environmental space' attempts to make sustainability more concrete by dealing with the physical components separately. The idea is to look at each component and consider what would be a level of activity that could be supported by ecosystems without irreversible damage. The total amount of activity that could be supported in such a way is referred to as the 'environmental space'.

The environmental space concept is closely linked to the issue of distribution. Starting from the position of a more or less fixed amount of

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