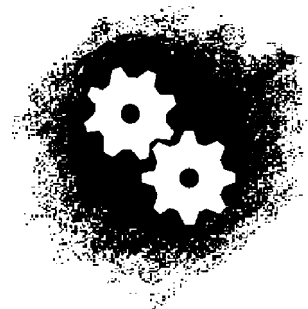


ENVIRONMENT, ECONOMY AND SOCIETY: FITTING THEM TOGETHER INTO SUSTAINABLE DEVELOPMENT



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Sustainable development is a contested concept, with theories shaped by people's and organizations' different worldviews, which in turn influence how issues are formulated and actions proposed. It is usually presented as the intersection between environment, society and economy, which are conceived of as separate although connected entities. We would argue that these are not unified entities: rather they are fractured and multi-layered and can be considered at different spatial levels. The economy is often given priority in policies and the environment is viewed as apart from humans. They are interconnected, with the economy dependent on society and the environment while human existence and society are dependent on, and within the environment. The separation of environment, society and economy often leads to a narrow techno-scientific approach, while issues to do with society that are most likely to challenge the present socio-economic structure are often marginalized, in particular the

sustainability of communities and the maintenance of cultural diversity.

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SUSTAINABLE DEVELOPMENT: A CONTESTED CONCEPT

Sustainable development is a contested concept with a wide range of meanings. It is embraced by big business, governments, social reformers and environmental activists, all of which put their own interpretation on what sustainable development means.

After initial reluctance, 95% of large companies in Europe and the USA now believe that sustainable development is important (Little, undated). The World Economic Forum, in their modest words the 'world's leadership team', discusses sustainability, although giving it the WEF spin (WEF Forum, 2001). Over 150 of the world's major companies in mining, oil and gas, autos, chemicals, logging, banking and finance, cement, electricity generation, drugs and bio-technology are members of the World Business Council for Sustainable Development (WBCSD, 2001). New Labour

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(DETR, 1999), the Conservatives (HMSO, 1994) and the Liberal Democrats (2000) all support sustainable development. Many environmentalists including Friends of the Earth (2001) and Greenpeace (2001) are committed to sustainable development, while being critical of companies who are members of the WBCSD. Organizations and individuals with concerns about social issues while supporting sustainable development disagree with the outlook of businesses and international economic organizations. The Real World Coalition argues that the 'the path of globalisation... will not succeed in eliminating poverty; it will increase it' (Jacobs, 1996, p. 51). Companies who are members of WBCSD have been in conflict with trade unions and human rights activists (Rowell, 1996).

The classic definition of sustainable development, 'meeting the needs of present without compromising the ability of future generations to meet their needs', was produced by the Brundtland report (WCED, 1987). In many ways Brundtland was a political fudge (Middleton *et al.*, 1993, p. 16), based on an ambiguity of meaning (Wackernagel and Rees, 1996) in order to gain widespread acceptance. The combination of socio-economic concerns and environmental concerns was guaranteed to be a contest field as the long standing debates within both socio-economics and environmentalism flowed into sustainable development with the added debate over the relation between socio-economic and environmental issues.

As sustainable development is like 'motherhood and apple pie', in that it sounds so good everyone can agree with it whatever their own interpretation (Pearce *et al.*, 1989), this can be seen as a strength. Others argue (Workshop on Urban Sustainability, 2000) that the blandness of meaning makes the concept almost meaningless and it lacks any clear rigour of analysis or theoretical framework. It can be interpreted to mean almost anything that anyone wants, so that beneath its covers lies a multitude of sins. One option

to the dilemma of meanings over sustainable development is to change the use of words to sustainability (O'Connor, 1994) or sustainable livelihoods (Workshop on Urban Sustainability, 2000). These phrases avoid some possible conflicts between economic growth, social equity and the environment and instead focus on human needs and the environment—what Brundtland claimed was the aim of sustainable development. Deep Ecologists reject the concept of sustainable development as it prioritizes the needs of humans, however conceived and defined, over the rest of life and largely views the environment from a human standpoint. Despite these problems, we have used the phrase sustainable development as it attempts to embrace the relation between the socio-economic and environmental and has gained widespread recognition.

It is clear from all the debates about sustainable development is that there is no common philosophy. There are so many interpretations of sustainable development that it is safe to say that there is no such thing as sustainable development-ism, in contrast to the schools of neo-liberalism, feminism, deep ecology or socialism. Rather, the existing worldviews of people and organizations flow into their conception of sustainable development (Hopwood *et al.*, in press). When examining an interpretation of sustainable development it is important to bear in mind the philosophy underlying the proponent's point of view. Concern with sustainable development, as with any other way of looking at the world, inevitably involves abstractions, which are themselves shaped by the observer's outlook. These underlying worldviews influence what are considered the main priorities and choices about what policies should be implemented and actions taken.

THREE SECTORS: ECONOMY, ENVIRONMENT AND SOCIETY

Sustainable development is often presented as being divided into the economy, environment



and society (Hardi and Zdan, 1997; West Midlands Round Table, 2000). The three sectors are often presented as three interconnected rings (ICLEI, 1996; du Plessis, 2000; Barton, 2000) (Figure 1). The model has a conceptual simplicity. By encouraging the classification of impacts into three convenient categories it makes analysis more straightforward. Often sustainable development is presented as aiming to bring the three together in a balanced way, reconciling conflicts. The model usually shows equal sized rings in a symmetrical interconnection, although there is no reason why this should be the case. If they are seen as separate, as the model implies, different perspectives can, and often do, give a greater priority to one or the other.

There are major weaknesses and limitations of this model. It assumes the separation and even autonomy of the economy, society and environment from each other. This view risks approaching and tackling issues of sustainable development in a compartmentalized manner. The separation distracts from or underplays the fundamental connections between the economy, society and the environment. It leads to assumptions that trade-offs can be made between the three sectors, in line with the views of weak sustainability that built capital can replace or substitute for natural resources

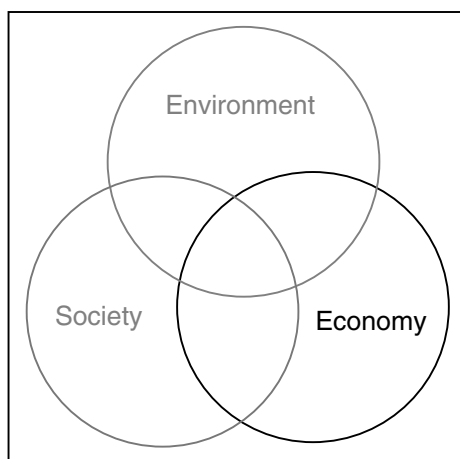


Figure 1. Common three-ring sector view of sustainable development

and systems (Neumayer, 1999). This ignores the fact that no number of sawmills will substitute for a forest, no amount of genetic engineering can replace biodiversity and it would be an immense technical problem to construct a replacement for the ozone layer (Wackernagel and Rees, 1996).

In most debates about sustainable development either the environment or the economy is given priority. Although the Local Agenda 21 agreements at the Rio Conference included issues to do with social and economic development, strengthening participation and means of implementation (Grubb, 1993), most LA 21 plans in Britain focus primarily on environmental issues (County Durham, 1997; Northumberland County, 2000). This concentration of LA21 on the environment can be a weakness, as this often means it is treated as peripheral by both local and national government, who usually concentrate on economic issues. Many English and American environmentalists give priority to issues of the countryside, wild animals and wilderness with the aim of preservation from people, with much less concern about the urban environment. This outlook has its roots both in a view that sees the environment as separate from humans and an anti-urban tradition.

One of the effects of the three sector separation is to encourage a technical fix approach to sustainable development issues. This focuses on pollution control, lower resource use and greenhouse gas trading rather than tackling the deeper issues or seeing the connections between society, economy and the environment. Technical solutions in the economy, such as changing interest rate, benefits or taxation are seen as ways to move the economy towards sustainable development. These are attractive to some as they can be introduced fairly quickly and do not involve a more fundamental examination of the relationship between the economy, society and the environment. A sectoral approach can divert attention from asking questions that are important to getting to the core of sustainable development such as those



about the nature of our society, what the policy priorities are, how decisions are made and in whose interest. The wider social issues often fall off the sustainable development agenda.

POLITICAL REALITY: PRIORITIZING THE ECONOMY

The reality of life today is that the economy dominates environment and society. The large global companies dominate decision making, including that of many governments (Korten, 1996; Monbiot, 2000). Also international forums and organizations, heavily influenced by the large corporations, take decisions without even the modest level of democratic control that exists on national governments. Whilst central government and business have embraced sustainable development, the separation into the three sectors can be used to justify a concentration on a part, rather than the whole. In most cases, governments' main concern is economic growth. Bill Clinton famously stated 'It's the economy stupid', not 'It's the quality of life' or 'It's people's happiness'. The British government's definition of sustainable development includes the aim of a 'high level of economic growth' (DETR, 1999). The growth of GDP is one of the key indicators to measure progress towards sustainable development. There is little or no concentration on an integrated approach or tackling deep-seated inequality in British society. In Britain and internationally, inequality in wealth, power and education is often justified on the grounds that it will aid economic growth, which in turn will raise everyone's living standards. This is in spite of the increase in inequality under the trickle down theory. As well as the increased inequality suffered by the poor, most people have not benefited from the growth in GDP as quality of life has become separated from economic growth. The Index of Sustainable Development for Britain (Jacobs, 1996), which measures human welfare and environmental issues, declined with the advent of neo-liberal

economic policies from the 1970s to the 1990s almost back to the level of the 1950s. It is no surprise that during this time Prime Minister Thatcher infamously stated that 'There is no such thing as society'.

British urban policy has concentrated on economic and physical regeneration and less on environmental and social issues. Business has mainly concentrated on the economic benefits of resource and energy efficiency and the marketing opportunities of a 'green' image. All these views of sustainable development have concentrated on the development side of the concept and interpreted it as meaning growth as defined in standard neo-liberal economic terms. This focus on the economy is likely to increase with the advent of a recession.

Environmental economists talk of the environmental impacts of business such as pollution, damage to biodiversity and loss of attractive landscapes as unpaid costs or externalities. This begs the question of how or to what a company pays these costs. How does money compensate an animal for its loss of habitat or a tree for acid rain? In a similar way there are many social externalities that business does not pay for, such as unemployment, a loss of community and damage to health.

Normally when governments, businesses and some theoreticians talk about the economy, they mean the production and exchange of goods and services through the operation of the market. They are referring to the capitalist economy. They do not give equal consideration to the multitude of actions that provision people and satisfy their needs that take place outside the market, such as subsistence activity in many parts of the world, the helping of friends, much of the raising of children, household labour and social relationships. One of the trends of capitalism is to increasingly commodify the satisfying of human needs. As well as the production of material goods, capitalism is trying to turn knowledge, caring for people, entertainment and nature into commodities. Reflecting this change, human



relationships and the environment are increasingly described in economic terms, as being natural and social 'capital' and as providing 'services'—an extension of Marx's comment that capitalism reduces everything to the 'cash nexus'. Some (e.g. Pearce *et al.*, 1989) argue that putting a price on the environment, to internalize the externalities, will reduce environmental damage. Others (Mellor, 1992; Cock and Hopwood, 1996; Shiva, 1998) argue that the commodification of nature and increasing areas of human activity will move society further from sustainable development.

MATERIAL REALITY: NESTING ECONOMY IN SOCIETY AND ENVIRONMENT

Political reality gives primacy to the economy. This largely treats the environment and society as a resource to be exploited, both natural and human, and as a sink where problems are dumped, whether unemployment, ill health or waste. In contrast, the material reality is that the economy is dependent on society and the environment (Daly, 1992; Rees, 1995; Wackernagel and Rees, 1996).

Society embraces the multitude of human actions and interactions that make up human life. Without society, humans would not survive, as our very existence, in both evolutionary and present terms, is based on social interaction. Human activity takes place within the environment. Nearly all our actions have an impact on the environment. Human life itself depends on the environment. Our material needs, heat, light, food, medicines, clothing, as well as modern consumer goods are made with materials and energy that come from it. Products, regardless of whether they are described as waste or as goods, eventually end up returning into the environment. As well as satisfying needs, the environment provides the source of much of culture and leisure enjoyment. Much of art and spiritual beliefs and most of science and technology draws on the environment.

While humans are capable of abstract thought, philosophy, planning, language and making tools, we are part of the natural world. The idea of our separation, whether rooted in religion or mis-applied concepts of evolution, is a human delusion of grandeur, which risks ever more disasters for humanity. Being part of nature we, like every other species, have unavoidable impacts on the environment. We should not dream of separation from the environment, rather work towards an interaction that will last, that is sustainable (Levins and Lewontin, 1994).

What is placed in the area described as the economy is a subset of society. Some human needs are met through the production of commodities; many are met by other activities that take place partly or wholly outside what is described as the economy (Langley and Mellor, 2002). The production and exchange of goods is a social relationship, dependent on many non-monetary activities. The developments that go to make up modern industry, business and technology are also products of human history, much of which is based on non-monetary activities. Even modern hi-tech sectors of the economy, such as pharmaceuticals, are often based on indigenous knowledge and the environment (Shiva, 1998). The economy part of the entire process is primarily the exploitation of these wider connections in time and space. It is an abstraction to conceive of the economy as a separate area of activity. Without society there can be no economy.

A more accurate presentation of the relationship between society, economy and environment than the usual three rings is of the economy nested within society, which in turn is nested within the environment (Figure 2). Placing the economy in the centre does not mean that it should be seen as the hub around which the other sectors and activities revolve. Rather it is a subset of the others and is dependent upon them. Human society depends on environment although in contrast the environment would continue without society (Lovelock, 1988). The economy depends on society and the

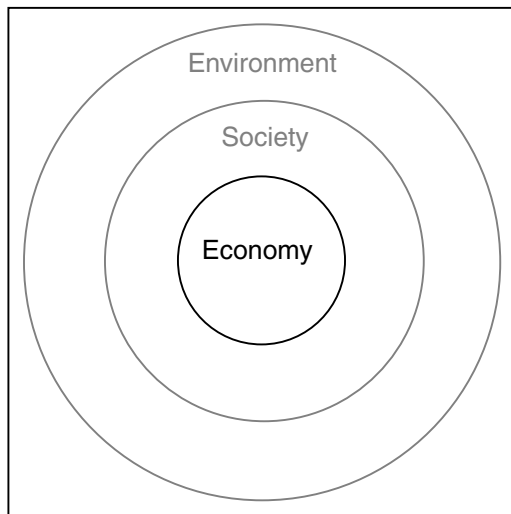


Figure 2. Nested sustainable development—the economy dependent on society and both dependent on the environment

environment although society for many people did and still does (although under siege) exist without the economy.

A key issue for sustainable development is the integration of different actions and sectors, taking a holistic view and overcoming barriers between disciplines. The 'nested' model rather than the 'three-ring' model encourages a conceptual outlook sympathetic to integration. Of course this again is a very broad-brush model. Most humans live their lives in all three areas, often without sharp distinctions in thought or practice.

MULTI-LAYERED AND MULTI-FACETED

Until now the three sectors have been considered as if there is an environment, an economy and a society; assuming that each sector is a unified entity. This, of course is a further abstraction. There are a multitude of environments, societies and economies. At different spatial scales different environments, economies or societies are apparent.

There are clear differences between the environments of the Antarctic ice sheet, a

European forest and Mediterranean scrub. At a finer scale there is difference between a temperate oak forest and a boreal spruce forest. Even on a single tree there can be different environments. Similarly an insect and a fish may experience the same stretch of a stream differently, with a fish being influenced by gravity while an insect is more affected by surface tension. There is a complex connection and interaction between the local and the global.

Presenting society as a single entity gives precedence to the dominant society of official structures, ruling power relationships and western culture. In effect this hides, and therefore tends to ignore and discriminate against, other cultures. Even the phrase 'social exclusion' masks the real character of being excluded from the dominant economic and decision making structures. Many of the poor living on council estates have a strong society; it is often vital to coping with a lack of money and access to power structures.

Similarly, claiming there is a single economy underestimates or ignores non-monetary provisioning, the informal economy that many use to cope with poverty, the subsistence economies of many cultures and other sectors that are not the concern of the stock market, governments and the major world corporations and finance institutions. It reinforces the view that all the actions of meeting human needs should be based on the monetary economy and gives priority to the interests of the globalized sectors of the economy.

The effect of pretending that the economy and society are each a unified whole is to ignore diversity and difference and instead give precedence to the dominant parts. Just as in the environment, diversity is an important part of human sustainability (Jacobs, 1965). The changes in science, technology, art and culture are stimulated by diversity. Shiva (1998) points to how global capitalism exploits all forms of diversity for profit and while so doing risks destroying that very diversity, with dangerous consequences for people and the environment.



As well as there being different economies, societies and environments, depending on the spatial scale, all of these have changed and are changing over time. The abstraction into three unified entities underplays the constant change and reinforces the idea of a static world, in which the present dominant structures and priorities have always existed and will remain.

Although all theories or explanations of the world are based on simplification and abstraction, it is important to be aware of the limitations and dangers of such abstraction. The over-simplification into the three separate sectors of economy, environment and society risks ignoring the richness and multi-layeredness of reality; giving precedence to the present dominant economic and social relationships; seeing the economy as a separate part of human activity and thinking that human activity is separate from the environment. All of these are impediments to moving towards sustainable development.

CHANGE OF VIEWPOINT: BREAKING DOWN THE BOUNDARIES

Although the move from three rings to a nested view is a step forward, it still has limitations. An improvement would be to remove the separation of the economy from other human activities. This separation inflates the importance of the market, assumes it is autonomous and does not focus primarily on meeting of human needs whether by the market or other means. We would suggest that human activity and well being, both material and cultural, should be viewed as interconnected and within the environment. Humanity's well being depends on the environment, although we should recognize that the natural world, although it would change without humans, would survive without us. The same cannot be said for humanity. The boundary between the environment and human activity is itself not neat and sharp; rather it is fuzzy. There is a constant flow of

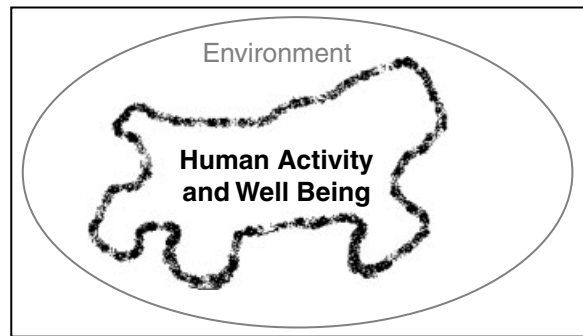


Figure 3. Breaking down boundaries: merging society and economy and opening up to the environment

materials and energy between human activities and the environment and both constantly interact with each other (Figure 3).

One of many possible examples of the need for an integrated approach is issues of health. The WHO (1997) places 'health and sustainable development' at the centre of the three sector ring model. Health is affected by the economy—people's poverty, type of work or lack of it all have a major impact on health. Their social circumstances also have a major impact on health as does the quality of their immediate and wider environment (Acheson, 1998).

This shift would base sustainable development on an integrated view and reduce the theoretical justification for trade-offs between such features as poverty in society or depletion of resources against growth in GDP in the economy. Instead it would encourage a 'win-win' outlook, for example appreciating a shift to renewable energy can benefit the environment and human well being. Defining the aim as human well being would encourage seeing discrimination in any form as contrary to sustainable development, rather than as at present, as undesirable but justified by gains elsewhere. Instead of having a priority on the economy, which is a means to an end, the focus should be on human provisioning and satisfying needs, which may be done in many more ways than those described within economy.



Theories of sustainable development stress the need to take a 'whole systems' approach that appreciates emergent properties, complexity and interactions (Hardi and Zdan, 1997). These lead to the need for an integrated and holistic approach, using analogies with ecosystems rather than linear systems (Expert Group on the Urban Environment, 1996). As Lawrence (1996, p. 64) points out, sectoral concepts and approaches 'hinder the definition and application of integrated perspectives'.

PRINCIPLES OF SUSTAINABLE DEVELOPMENT

Even the redefinition of sustainable development to focus on human well being and removing the separation of economy and society as outlined above still has drawbacks. Nowhere are there clear ethical values or guidelines to indicate the basis for decisions or what are priorities. Sustainable development needs to be based on principles that would apply to all issues whether they are classified as environmental, social, economic or any mix of the three. Haughton (1999) outlines five equity principles:

- (i) futurity–inter-generational equity;
- (ii) social justice–intra-generational equity;
- (iii) transfrontier responsibility–geographical equity;
- (iv) procedural equity–people treated openly and fairly–and
- (v) inter-species equity–importance of biodiversity.

As sustainable development principles for human relations these can be summarized as futurity to give regard for the needs of future generations; equity covering social justice regardless of class, gender, race, etc or where they live and participation so that people are able to shape their own futures. A principle recognizing the importance of biodiversity and ecosystem integrity is also vital.

These principles, futurity, equity, participation and importance of biodiversity, would move society beyond present approaches based on monetary cost/benefit analysis or a utilitarian view that can justify the suffering of some by the benefits of others. Averages can mask great inequality. A population of 100 people with every person receiving £20 000 has the same average as if one person has £1 million and the other 99 have £10 101 but one is much less equitable and therefore contrary to the principles of sustainable development.

Basing sustainable development on principles would mean that similar questions could be asked about any policy or action. Such questions might include the following: are benefits and losses shared fairly, now and in the future; is the quality of life improved and in an equitable manner; do people have an equal access to decision-making; do decision-makers carry responsibility for, and feel the effects of, their decisions; will the benefits last; does this protect or improve biodiversity; will this ecosystem continue into the future; will our children and grandchildren approve of the decisions and do the proposals encourage an integration of policies?

CONCLUSION: STANDING BACK TO MOVE FORWARD

The division of sustainable development into three separate sectors, environment, society and economy, which are only partially connected, does not produce an integrated or principle based outlook. This division reflects the common approach to the study and description of human life and the world around us, which is dominated by a multitude of separate disciplines. These are partly a product of the need for detailed study in an area, but also of the history of thought in our society.

This separation has been shaped by the alienation of much of human life from the environment we live in, as well as the separation between the production and consumption of



the means of life. To many people today, goods just appear in a shop and there is little or no awareness of where they came from or how they were made. At the other end of a product's life, it disappears into another unknown black box labelled waste. The philosophy of the separation of mind and body is a fundamental conception of alienation and of separation. Technology is often seen as separate from society yet it only exists within social and cultural relationships.

Sustainable development will require more than technical changes at the end of the pipe or modifications to cost/benefit analysis. It will need a shift in how humans see the world. Humans are part of a web of connections within what is called the environment and society. We cannot pretend to separate the impacts of our actions into distinct compartments. There is a need to overcome the barriers between disciplines to an interdisciplinary or even trans-disciplinary view of the world. Sustainable development, to have long-term meaning, will be an integrated and principle based outlook on human life and the world we live in.

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