

## ***SUSTAINABLE DEVELOPMENT: A CONTESTED PARADIGM***

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This paper discusses the concept of sustainable development as a contested paradigm. Issues surrounding growth and sustainability are considered as are definitions and perceptions of sustainable development and the role played by ecological modernization in achieving sustainable development goals. The views expressed are those of the author and are presented to stimulate discussion rather than as a definitive treatise on the subject.

### **Growth and Sustainability**

Although of quite different meaning, the terms *sustainability* and *sustainable development* are often erroneously used interchangeably. It is important to understand the difference between them, and how the two concepts interact, before discussing sustainable development itself.

For nearly fifty years following the Second World War economic growth, and with it social improvement, was the mantra of the developed world. Harris (2001) indicates that successful developing countries pass through a series of stages from traditional society, through economic development to maturity and high mass consumption. This suggests an apparently unbounded and sustainable process of continued economic and social growth.

However, the natural systems that support the sustainability of economic and social systems are themselves subject to natural laws. These laws are understood by science and place ecological and biological boundaries to growth. In this context, Drummond and Marsden (1999) indicate that, in environmental terms, sustainability is more narrowly related to the resilience of ecosystems: that is their ability to withstand varying types of stress. Ideally, sustainability is achieved where an activity occurs without damaging its supporting ecological system(s). Shiva (1992) goes further by stating that true sustainability demands that ecological principles are incorporated into production processes to reshape them and that conservation has to be both the basis and the foundation of production.

Sustainability is therefore a term that can have different and often opposing meanings when applied to economic, social and environmental situations. Indeed, Shiva (1992) identifies two kinds of seemingly mutually exclusive sustainability, one situated in nature and the other situated in the marketplace. In nature, sustainability is said to refer to regeneration of nature's processes and subservience to nature's laws of return to provide sustenance to indigenous peoples. In the marketplace, sustainability is said to involve ensuring the supply of raw materials, the flow of commodities, the accumulation of wealth and the return on investment.

Clearly, sustainability is a contested concept and this is a major issue at the heart of the controversy surrounding the sustainable development paradigm that itself brings together seemingly irreconcilable economic, social and environmental dimensions.

## The Sustainable Development Paradigm.

According to Carroll (2002) one study alone has identified over 500 different attempts to define sustainable development. The concept is by no means modern even the Magna Carta of 1297 contains a clear statement of the importance of environmental conservation in relation to intergenerational equity. The following recent attempts at definition show that sustainable development is an evolving concept.

**The first example** is an ecocentric approach and embodies the principles of sustainability described by Drummond and Martin. It has been proposed by IUCN, UNEP, and WWF. *“Sustainable development is maintaining and enhancing the quality of human life – social, economic and environmental – while living within the carrying capacity of supporting eco-systems.”*

**The second example** is anthropocentric in tone and is taken from the ‘A strategy for sustainable development in the UK’ (DETR 1999). *“A better quality of life for everyone, now and for generations to come.”* Although this definition probably owes as much to public relations efforts as to ecological considerations, it does clearly express the importance of intergenerational equity and is backed by the following four main aims: social progress which recognizes the needs of everyone; effective protection of the environment; prudent use of natural resources; maintenance of high levels of economic growth and employment.

**The third example** is a pragmatic approach coined by Sir Crispin Tickell (2000) the former Chairman of the UK Government Sustainable Development Panel. Its effectiveness lies in its simple appeal for humanity not to despoil its own environment. *“Treating the Earth as if we intended to stay there.”*

Adeyeri (2002) refers to the classic definition of sustainable development. This was proposed in the World Commission on Environment and Development (1987) report, *Our Common Future*: often referred to as the Brundtland Report. *“Sustainable development is the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.”* This definition embraces three dimensions: environmental responsibility, economic return and social development.

Harris (2001) endorses the recognition of these three aspects of sustainable development.

**Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances that damage agriculture or industrial production.

**Environmental:** An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of bio-diversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources.

**Social:** A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

Herein lays both the power of the sustainable development paradigm and the reason why it has become such a contested concept. Its power relates to the aim of bringing together the apparently mutually exclusive issues of environmental, economic and social imperatives. Its contestation arises both from the emphasis placed on these three imperatives and from the difficulties encountered in the practical application of the concept.

### **Sustainable Development: a Contested Paradigm.**

The sustainable development paradigm has been the subject of controversy since its introduction. Jacobs (1999) refers to the skepticism of the 'Deep Greens' who believe that the definition of sustainable development in '*Our Common Future*' is too lax and is used by big business as a 'smokescreen' to obscure conflict between ecological and growth interests. He refers to the mechanism by which the definition evolved as a compromise between the opposing views of twenty-three commentators from twenty-one countries. Richardson (1997) calls it a 'catch-all', a political fudge or slogan that kept the commissioners happy. Crabbe (1997) cynically describes sustainable development as a political Utopia developed by the UN initially to entice Third World countries to subscribe to the environmental agenda of the North. Beckerman (1994) adds to the controversy by stating that the concept of 'sustainable development' is fundamentally flawed since it mixes together the technical characteristics of a particular development path with a moral injunction to pursue it. He concludes that the 'optimal choice' for society is to maximize welfare over whatever timescale is regarded as appropriate for intergenerational justice and that sustainability should be interpreted as merely a technical aspect of a project. Beckerman (1995) goes further by referring to 'the precautionary principle' and 'sustainable development' as catch phrases repeated parrot-fashion by environmental policy makers.

Many of these criticisms are rooted in the form taken by the definition given in '*Our Common Future*'. Jacobs (1999) describes it as a fashionable phrase that everyone pays homage to but nobody cares to define. He continues by inferring that it is this lack of fine definition that has frustrated policy-technocrats, greens and academics alike. Lafferty (1996) adds that there are calls from within the scientific and academic community for the term sustainable development to be scrapped. However, Jacobs contends that it is often a characteristic of contested concepts that they have two levels of meaning. A first level that is unitary, vague and often brief, and supported by core ideas that are open to differing interpretation. The second level, namely that of interpretation of the concept into action is where the political argument rages, and presumably accounts for the proliferation of definitions reported by Carroll (2002).

## Perceptions of sustainable development

Drummond and Marsden (1999) cite two, alternative and extreme, positions on sustainability that illustrate the wide range of perceptions held by different stakeholders when considering government policies on sustainable development.

<i>Soft Sustainability</i>	<i>Hard Sustainability</i>
Prevention of catastrophe for human society.	Promotion of society in harmony with supporting ecosystems.
Acceptance of science and modern technology.	Questions science: seeks alternative technology.
Anthropocentric.	Ecocentric.
Intergenerational distribution treated separately.	Intergenerational distribution central to sustainable development.
Lower environmental risk aversion.	High environmental risk aversion.

It is therefore important when setting and implementing any strategy that involves more than one person or group of people to appreciate the impact of the differing perceptions each will bring to the process. The differing and often opposing views of the various stakeholders may be a source of frustration, but if efforts are made to build on common ground they can provide an essential audit of both strategy and actions.

We have already seen the cynical perception held by Beckerman, but his is not typical of economists as a whole. Despite the gloomy view of O’Riordan and Voicey (1998) regarding accuracy in the costing of environmental effects, the rapid growth of the field of environmental economics is evidence of the growing importance of environmental considerations in the profession. An example is the policy of the World Bank that sees the environment as an integral part of the development challenge (World Bank, 2001). Georgiova (2002) believes that techniques of environmental valuation will be refined and better assessments of the costs of environmental effects will become available.

Ekins (2002) seeks to resolve the conflict between environmental sustainability and economic sustainability, two key components of sustainable development. He asserts that if the environment is regarded as only having economic value then it will be traded off and if it is regarded as having only low moral value it will be ignored. Resolving the environmental crises will require recognizing that environmental sustainability has both high economic and moral value. Ekins proposes the following process for the politico-economic evaluation of the environmental component of sustainable development policy.

1. Specify environmental standards to meet the required level of sustainability and identify the ‘*physical sustainability gap*’ (current situation and what is needed).

2. Calculate the costs of attaining the specified environmental standards and identify the '*monetary sustainability gap*'.
3. Make a political decision whether or not to implement policies to achieve standards, and over what timescale.

By using a similar approach for the evaluation of the economic and social components of sustainable development macro-level judgments can be made to aid policy formation and implementation. This is not out of step with the view expressed by Solow (1993), who believes that social capital may be a substitute for consumed environmental resources, since the social capital generated in this way will feature in the overall equation. Trade-offs of this kind are at the heart of political challenges with the environment. The decision that Government Ministers will retain the authority to adjudicate on matters of conflict arising through the implementation of the EU Water Framework Directive (European Commission 2000) is an illustration of the importance of the need to reconcile the monetary and physical sustainability gaps when pursuing sustainable development goals.

The philosophies of environmental campaigners, both as individuals and as non-government organizations (NGOs) are rarely as radical as those of Naess (1999), but fall between his definitions of 'shallow' and 'deep' ecology. The less radical concern themselves with the fight against pollution and resource depletion, while the more radically minded usually stop short of his '*relational, total field image*', that sees organisms as knots in a bio-spherical net or field of intrinsic relations.

Environmental campaigners range from single issue to multi-issue groups, from local fishing clubs to Greenpeace, NIMBY protesters to Friends of the Earth. They all have a view on, and an interpretation of, sustainable development and these must be weighed and considered by politicians and policy makers. The importance of the views of NGO's was reinforced at the UNCED '*Earth Summit*' at Rio in 1992 where they played a major role in shaping both the agenda and the outcome. The input of environmental NGOs and other stakeholders to sustainable development policy formulation is illustrated in by their involvement with the development and pre-adoption consultations concerning the EU Water Framework Directive (2000).

A significant outcome of Rio 1992 was Agenda 21, the agenda for sustainable development at local level. It has stimulated action by local government in the UK and has drawn to it the support of individuals, organisations and NGO's. Some progress towards the incorporation of sustainable development goals in policy has already been achieved in the local government sphere, for example, the introduction of waste recycling services. As a result public awareness of environmental matters has been raised.

Despite the gloomy report by Adeyeri (2002) that only 40% of company directors had heard of sustainable development, a significant number of companies now embrace environmental issues and report regularly on progress with their environmental policies. It is therefore increasingly important that all stakeholders feel they have a part in promoting and achieving strategies to achieve sustainable development goals.

O’Riordan and Voicey (1998) believe that a new language is needed to promote the transition to sustainability, one that is comforting to all stakeholders and embodies both stewardship and precaution. Fleming (1994) suggests that, in seeking this new discourse, sociologists should look beyond the environment as merely a social construction. The challenge presented by the sustainable development ideal questions the models social science uses to view the world: new models are needed through which to articulate the policies to achieve this ideal. An essential feature of this process will be the opening of avenues by which the public may participate in sustainable development policy formulation and implementation. Public participation in the river basin planning process is a key feature of the EU Water Framework Directive and it is disappointing that the UK Environment Agency currently regards this as a low profile issue.

### **Ecological Modernization and Sustainable Development.**

Hajer (1999) describes ecological modernization as a process that employs a regulatory approach embodying the assumption that ecological problems can be solved and that economic growth can continue. The approach spurns both the radical environmentalist and the legal/administrative responses to environmental crises. However, Blowers (1999) points to the dangers in the assumption of reconciliation between the economic and environmental imperatives inherent in the ecological modernization project. Some critics believe that further industrial progress will inevitably lead to environmental disaster and call for the evolution of a ‘risk’ society in which the potential environmental problems from industrial development are overemphasized whilst efficacy of the provisions for pollution prevention are undervalued, an approach that would be contrary to the sustainable development paradigm.

Nevertheless, Hajer’s approach would appear to fit well with the multi-dimensional sustainable development paradigm. It is particularly apposite in countries, like the UK, that are entering the post-industrial phase with many of their former polluting industries in decline. Here the challenge is often focused on the clean-up following past environmental damage by industrial degradation, rather than the on-going fight against the polluting effects of active plants.

It is clear that ecological modernization has an important role to play in the achievement of sustainable development goals, but many of the highly polluting industries lost to the UK are now active in the developing countries where they can operate economically since wages are low and environmental controls are lax: a situation that is unsustainable in the long term.

### **Concluding thoughts**

A key issue that is central to the problem with the reconciliation of environmental, social and economic imperatives is rarely mentioned in the literature. It is the Malthusian prophecy that human population may grow to exceed the natural resources needed to sustain it. Indeed, there is strong evidence that this has already happened. The Earth’s great commons of air, sea and forest show signs of severe strain through the growing evidence of global warming, the decline in marine species used as food, and the rapid

decline in the area of the Earth covered by trees. The high hopes that ecological modernization would help arrest environmental damage are dashed through the switch of production from areas where environmental standards are high to areas where such standards hardly exist at all.

Despite all the rhetoric and good intentions the natural, acquisitive nature that has made mankind the dominant species on Earth also has the potential to drive us on to disaster. Our overuse of natural resources is graphically illustrated by the fact that, if all peoples expended them at the same rate as the UK population, three Earths would be needed to support the world population! (Vidal 2006).

So, can the principles of sustainable development be made to work? The evidence points towards their impracticality without drastic change to individual and collective consumption patterns. Yet what political party expecting to win an election would propose this in its manifesto? An alternative option would be a planned, major reduction to the human population over perhaps three or four generations: down to about a quarter of the current level and subsequently maintained at that. Modern technology would enable those remaining to enjoy an excellent standard of living with insignificant impact on the environment: a situation where *sustainable development* would be the accepted paradigm. Unfortunately, this alternative would also appear to be both politically and religiously unacceptable to most societies.

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