

URBAN SUSTAINABILITY: THEORETICAL PERSPECTIVES ON INTEGRATING ECONOMIC DEVELOPMENT AND THE ENVIRONMENT

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Summary

There has been a growing concern with the adverse impacts of economic development upon the environment in recent years and a concomitant response in terms of policy initiatives. The policy discourse of sustainable development proposes that economic development and the environment can be integrated to give rise to “win-win” outcomes. Many policy initiatives have been developed at the urban, regional and local level and this scale is frequently emphasised as the most appropriate for policy implementation. However, this local emphasis is rarely justified and almost never explained theoretically. One of the dangers of this is the implicit assumption that integration is relatively straightforward and unproblematic. What is needed is a clearer theoretical focus that integrates environmental issues with economic approaches. It is argued here that there is potential to combine work from a specifically environmental focus, such as that on sustainable development and ecological modernisation, with work from a political economy perspective – particularly urban regime theory and regulation theory. The advantages of doing this are two-fold. First, it allows the recognition that the direction of economic development is not prescribed but open to social shaping. Second, and following on from this, it allows the recognition that action at the local level will itself be open to contestation and struggle. Sustainable development is thus an ideological and political issue, not just an environmental one.

1. Introduction

In recent years the issue of environmental change has become a key area of debate. There is a widespread concern that the consequences of industrialisation for the

environment are increasingly negative and that action needs to be taken to remedy this. Although there is no absolute consensus that major environmental changes, such as enhanced global warming and sea level change, are occurring (see for example the formidable pressures brought to bear on the US President in the run up to the Kyoto climate change summit in 1997 by representatives of the automobile, steel and oil industries), there is a broad agreement that these changes are in train and that some form of response is needed. Indeed, it has been argued by many that any political-economic vision on offer must address the challenge presented by ecological problems in order to be credible. “The environment” can no longer be thought of as just one issue among many. Ecological problems are sufficiently widespread and serious to constitute an acid test for all actual and proposed political and economic arrangements, whether they are incremental or revolutionary. Where this agreement breaks down is in the form of the appropriate response to environmental change. There is a wide diversity of opinion here from deep green ecologists who require a wholesale restructuring of society, through to some economists who believe that market instruments are capable of restoring the “environmental equilibrium” and that the basic socioeconomic form can remain intact. A key area of debate revolves around the potential for integrating economic development with the environment. One of the major arguments of the increasingly important policy discourse of sustainable development is that these two areas can be integrated to create "win-win" situations.

This contribution to the Encyclopedia is concerned with the potential for, and form of, integrative action at the scale of local and regional economies. There is an explicitly urban dimension to this—cities are key economic units, producing some 60% of global gross national product and consequently have major environmental impacts. Moreover, as the European Union Expert Group on the Environment have commented, “the urban economy is perhaps the one area where policy integration is most crucial...cities need to find a path of urban economic development which continues to meet economic needs while also responding to the social and environmental sustainability agendas”. The rationale for a focus on the urban, local and regional scale is also related to the major emphasis placed upon this scale as the major site for the delivery of environmental policy and sustainable development (see for example the United Nation’s Agenda 21 programme and the European Union’s Fifth Environmental Action Programme). In addition, there is a case that the local scale has some level of causal autonomy which necessitates action at this scale, albeit located within an international and national context. It can be argued that seeing just the local level is to risk being reactive. However, while there is a need for an international and national response to environmental problems, seeing only the global scale runs the risk of being abstract and irrelevant.

In particular, this contribution is concerned with the theoretical background that informs our approach to the study of the local economy and the environment. To date the theoretical underpinnings of environmental policy and sustainability have been weakly developed and it can be argued that this has hindered the development of more concrete policy interventions. While there has certainly been a social response to the environmental agenda, visible in the new environmental movements and a number of "sustainable city" initiatives, we essentially lack a theoretical framework and a strategic programme to construct an ecologically sustainable rationality. To attempt to do this

would seem to be a logical step forward in the ongoing debate about the local implementation of sustainable development. After all, if we are to talk about the need to integrate economic and environmental policies at the local level, then we need a way of analysing local economic development policy and environmental policy in an integrative manner.

To date the literature on local environmental policy has not addressed these wider issues. Rather, there is a simplistic assumption that local level environmental policy initiatives will effectively deal with today's ecological chaos by creating a more rational future with local government leading the development of more sustainable communities, life and work styles. In this manner it is assumed urban areas can regain political leverage by constructing a new form of transformative local governance around an environmental agenda. What has been termed the “new localism”, however, rests upon a number of unsubstantiated assumptions about the changing nature of local economies, based upon a (mis)reading of work on flexible specialisation and post-Fordism, and which stress the growth of small-scale industry in new industrial spaces and then conflate this with a shift to local production, local control and a benign use of new technologies allowing industrial dispersion. The aim here then is to provide a theoretical overview of work that is of use in helping to understand the ways in which economy and environment can be reconciled. It draws particularly upon two main bodies of existing work—that explicitly concerned with the environment (sustainable development, ecological modernisation) and that which takes a political economy approach to economic development (urban regime theory, regulation theory). After an outline of the main themes within this work, attention is turned to how these might help inform both future work and future policy developments.

2. Sustainable Development

Although the term originates before this date, the term sustainable development was popularised by the World Commission on Environment and Development's 1987 report (popularly referred to as the Brundtland Report). The definition used in the Brundtland Report emphasised meeting the needs of the present without compromising the ability of future generations to meet their own needs. A particular national interpretation of this can be seen in the United Kingdom's sustainable development strategy, which defines it as “ensuring a better quality of life for everyone, now and for generations to come”, based on four objectives:

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources;
- maintenance of high and stable levels of economic growth.

However, while definitions of sustainable development vary, most allude to the following core principles:

- quality of life (including and linking social, economic and environmental aspects)
- care for the environment

- thought for the future and the precautionary principle
- fairness and equity
- participation and partnership

The United Nations Earth Summit, held in Rio de Janeiro in 1992, seemed to have placed the notion of sustainable development firmly into policy making. From an economic perspective, the agenda which came out of Rio was focused around the relation between environmental quality (understood in biospheric as well as aesthetic and utilitarian terms) and economic development, expressed in the rhetoric of sustainable development. Economic development is understood not merely as the promotion of growth, nor narrowly as property development, but as the promotion of the assets of area.

A variety of different perspectives have been used to approach the concept of sustainable development. A spectrum of perspectives can be identified ranging from a technocentric “very weak sustainability” position through to an ecocentric position of “very strong sustainability” (see Table 1). This spectrum from weak(er) to strong(er) versions of sustainability is important because the way in which sustainable development is defined and operationalised crucially shapes how the economy and the environment are integrated. Advocates of weak sustainability approaches assume that there is a very high degree of substitutability between human capital and natural capital. In these approaches environmental concerns assume a higher priority in economic policy, but there is no specification of the environmental quality to be achieved. The emphasis will effectively be on raising environmental efficiency, i.e. reducing the environmental impact of each unit of economic activity, and addressing individual parts of the economy, such as firms or sectors, without an holistic approach to the environment. Strong versions of sustainability, however, take issue with the assumption of almost infinite substitutability of resources and specify minimum levels of environmental quality to be achieved prior to consideration of other goals. Strong versions of sustainable development begin from a presumption that society cannot simply let economic activity result in a continual decline in the quality and functions of the environment, even though it may be beneficial in other ways.

Version	Features
Very weak sustainability	Overall stock of capital assets remains stable over time; complete substitution between human and natural capital. Essential link between willingness to pay and sustainable development
Weak sustainability	Limits set on natural capital usage. Some natural capital is critical, i.e. non-substitutable. Related to the precautionary principle or safe minimum standards. Tradeoffs still possible.
Strong sustainability	Not all ecosystem functions and

	services can be adequately valued economically. Uncertainty means, whatever the social benefits foregone, losses of critical natural capital are not possible.
Very strong sustainability	Steady-state economic system based on thermodynamic limits and constraints. Matter and energy throughput should be minimised

Table 1. The spectrum of sustainable development

In strong versions of sustainable development there are lower limits to environmental quality, such that a sustainable economy is a constrained economy. Strong versions of sustainable development will require targets to be set for environmental impacts, such as emission levels, and measures taken to constrain firms and individuals to ensure that these targets are met such that the whole of the economy is affected, rather than some of its constituent parts. The spectrum is thus associated with differing views on the required degree of intervention into the economic system, which is necessary and sufficient for sustainable development. Under weak versions of sustainability the market and the preservation of the status quo play a much greater role than in strong versions, where direct intervention is necessary and where greater social and institutional change is required.

These notions of weak and strong sustainability have also been applied in relation to the strength of integrative activity within environmental policy. Strong integration exists where departments within organisations undergo a process of internal culture change, involving modification of strategic and operational characteristics. At the opposite end of the spectrum is weak integration, involving the adjustment of existing activities within existing operational boundaries. Some authors have queried whether weak integration is compatible in the longer term with the holistic concepts of sustainable development, as the former involves the adjustment of existing structures and policies rather than the types of institutional innovation and policy change necessitated by the latter. Other authors have attempted to develop a similar spectrum of sustainability for urban areas. At the lowest level the “sustainable city” is concerned with surface appearances, such as land reclamation and tree planting. The next level focuses upon less tangible or visible problems in the local environment, such as air quality and waste disposal. A third stage looks at the functioning of the urban system as a total metabolism, with internal and external effects. The “system” is taken to include all aspects of urban infrastructure which predetermine the patterns and impacts of production and consumption. A further stage still includes all human activity within the urban system, such as production, consumption and indirect linkages such as overseas trading. These notions of a sustainability spectrum are useful as a method to evaluate the degree of commitment to sustainability.

However, there has also been much criticism of the notion of sustainable development and whether it has any practical meaning. One comment has been that discourse around

the concept of sustainable development is essentially an oxymoron, a conflation of policy goals from distinct economic and environmental policy arenas. Conversely, it has also been argued that it is an innovative step forward in policy thinking which provides new opportunities for goal achievement. One response has been to see sustainable development as simply one discourse of environmentalism amongst several others, albeit increasingly the dominant one. Certainly, the ambiguity of the term allows political actors from many different backgrounds to proceed without having to agree on what action to take - a benefit to those who see the need for incremental reform rather than radical social transformations of the type advocated by “deep greens”. Perhaps this is not surprising given that sustainable development is a discourse rather than a concept which can or should be defined with any precision.

In spatial terms a key component of sustainable development is the adaptation of the old radical green slogan “think globally, act locally”. Sustainable development is frequently predicated upon the basis of simultaneously shifting some political power up to transnational levels of political organisation and down to the local scale. The concomitant of these power shifts is a decrease in the capacity rooted in the nation-state—in part a recognition by environmentalists of the “hollowing-out” of the nation-state and associated globalisation tendencies. At the local scale there is a commitment to exploratory and decentralised approaches to sustainability, with a range of local experimentation. This can be seen as a potential problem (how can these local experiments be harnessed together?) and as an advantage (a welcome antidote to nation-states under the sway of market-led economic approaches). It can be proposed that sustainable development is thus a discourse of civil society and not nation-states. It has been argued that we can read sustainable development discourses as a new power/knowledge formation. In this sense such discourses aim to gain power for comparatively powerless subnational and supranational agencies through mobilising new knowledge about the performance of essentially national economies and states that exert their authority to foster development at any cost. Rather than sovereign territories, these discourses look at subnational and transnational domains for sustainable ecosystems.

For the moment, though, the nation-state remains the locus of most regulatory activity. At this scale, despite the increasing acceptance of sustainable development as the basis for environmental policy at a variety of spatial scales, the trend in recent years in industrialised countries has been for a move towards market-led economies, the globalisation of economic activity and a system of free trade which runs counter to sustainable development. Other than amongst “deep greens”, there is a recognition that any future shift in society and the way in which the economy is organised is unlikely to involve radical change, at least in the short- to medium-term. Over this time scale, market mechanisms will remain dominant and perhaps the best that can be expected is a gradual shift towards a more sustainable future. Given that a market-based, capitalist economic system looks set to dominate the global economy, one response has been to argue that integrating environmental and economic policy can both be profitable for business and contribute to sustainable development through a programme of ecological modernisation.

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Biographical Sketch

David Gibbs is Professor of Human Geography in the Department of Geography at the University of Hull in the United Kingdom. Both his undergraduate and postgraduate degrees were obtained from the Department of Geography at the University of Manchester. Prior to taking up the post at Hull, he was employed at Manchester Metropolitan University as Reader in Economic Geography and, before that, at the Centre for Urban and Regional Development Studies at Newcastle University as a Research Associate. He has also been Visiting Research Fellow at Macquarie University in Sydney, Visiting Collaborative Scholar at Monash University in Melbourne and Visiting Researcher at the University of Cincinnati. He is an editorial board member for the journals *Local Environment*, *Journal of Environmental Planning and Management* and *NETCOM*.

His research interests are concerned with local and regional economic development. More specifically this research is focused upon two main themes. First, one theme is the impact and use of information and communication technologies in local and regional economic development strategies. A second theme, which has formed the majority of recent research work, is the potential for the integration of economic and environmental strategies. He is the author of over 50 refereed journal articles on both these themes, as well as numerous book chapters and conference presentations. His most recent book is *Local Economic Development and the Environment*, published by Routledge in 2002. He has recently

completed a major research project on “Governance and Regulation in Local Environmental Policy Making” funded by the UK's Economic and Social Research Council (ESRC) and is currently working on a project entitled “Sustainability and the Local Economy: The Role of Eco-industrial Parks”, also funded by ESRC.

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