

## Sustainability and Post-Sustainability

In the wake of the Brundtland report (1987) it was argued that 'development' ought to be able to accommodate 'sustainability'. The discussion of 'development' needed to be enlarged and a 'long view' taken of society/nature relations.

During the last two decades this formulation has increasingly been called into question: critics of 'sustainable development' have argued that it is an oxymoron, and that development cannot accommodate sustainability [critics from the sceptical Right and the Deep Green Left].

Others have argued that both the scientific evidence of global environmental change *and* increasing globalization (both economic and cultural) suggest that it is possible to 're-tune' development along lines that are less energy and material intensive. This latter position was influenced by three processes:

- (a) *Warnings of accelerated ecological losses and degradation at a global scale (the Earth Summits of 1992 and 2002, but also cf. Millenium Ecosystem Assessment 2005, and the first and second World Conservation Strategies 1983 and 1991).*
- (b) *Neo-liberal and structural adjustment policies pursued after the debt crisis, ('Washington Consensus').*
- (c) *Climate change politics: FCCC and Kyoto Protocol (1997).*

However, the political and social implications of employing the idea of 'sustainability' have rarely been thought through. There has little attention to the implications of re-thinking sustainability for governance, security or ideas of justice. During the 1970s and 1980s environmental policy and regulation identified *external* risks (wildlife, effluents etc) which could be contained or repaired. The risks were seen as *controllable* (Brunnengraber 2007). There was strong modernist impulse at work in delineating human responsibilities for nature. Since 1992, however, this confident, regulatory modernist impulse has been undermined. Floods, storms, habitat loss and droughts can be seen as immanent to the system (especially the climate system). They are *internal risks*. These doubts about control extend to new areas, notably the new genetics. This paper examines the direction of current thinking ('post sustainability') in the light of the intellectual inheritance prior to 1992, the date of the first Earth Summit, when 'sustainability' entered mainstream thinking about development.

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*A post-carbon politics?*

***'The transition to a low-carbon economy will bring challenges for competitiveness but also opportunities for growth.'***

***'Reducing the expected adverse impacts of climate change is therefore both highly desirable and feasible.'***

(Stern Review: The Economics of Climate Change, UK 2007).

Responses to Stern (and IPCC 4<sup>th</sup> Assessment) set the text to music...

*'People would pay a little more for carbon-intensive goods, but our economies could continue to grow strongly... The shift to a low-carbon economy will also bring huge opportunities... Climate change is the greatest market failure the world has seen'.*

(Richard Welford, *International Journal of Innovation and Sustainable Development* 2006)

- Teleological [ outlying purpose]
- Easily accommodated by the market, so 'feasible'
- Politically necessary and so, also 'desirable'.

But there were dissenting voices, too:

*'The fundamental victory of late-twentieth century environmental politics was precisely to highlight and isolate environmental destruction as the integral result of capitalist patterns of production and consumption. If still incompletely, the market has now retaken and recolonised environmental practices... The extensive production of nature that has characterized capitalism since its infancy has, since the 1970s, been challenged and increasingly superseded by an intensive production of nature'.*

(Neil Smith, 'Nature as Accumulation Strategy', *Socialist Register* 2007)

Whatever the discussions around 'sustainability' might mean in the realist/science world, cultural and political discourse today suggests a number of radically different points of departure.

### **Post-Sustainability**

**(1) 'Discourse sustainability'** itself helps to change and shape reality. It is part of a 'post-political' discourse. It is increasingly

difficult, therefore, to separate materiality from its ontological expression.

*The debate between critical realism and social constructivism:*

### **Critical Realism**

CR seeks to identify the structural conditions responsible for particular environmental problems, and is reluctant to suggest solutions to problems because they fear that specific policy solutions ignore important larger truths.

(Proctor, J.D. 1998, 'The social construction of nature: relativist accusations, pragmatist and critical realist response', *Annals of the Association of American Geographers*, 88: 352-376).

### **Social Nature**

This approach does not deny the materiality of nonhuman entities ('nature') but argues that we cannot separate their material existence from our knowledge of them/it. There is no Olympian point from which we gain value-free objective knowledge of the existence of nature.

This approach has been primarily directed towards identifying the ways in which discourses on nature create their own truths.

(Castree 2001, Castree and Braun 2001, Demeritt 2001).

These socially constructed truths help legitimise and facilitate the transformative power with which societies socialise and alter nature.

The insights of the 'socionature' thesis fit within poststructuralist thought, especially Derrida (Braun and Wainwright 2001), but defenders have emphasised that this does not necessarily point towards pointless, postmodernist relativism (Demeritt 2003).

The argument is that the social construction of nature thesis emphasises the discursive aspect of human-nature relations, in the process destabilising the classic enlightenment dualisms of nature/society and culture/environment. (Proctor 1998).

- The difficult task for the present is to identify the social and cultural implications of changes in materiality, while at the same time, identifying the material implications of social construction.

Braun, B and Wainwright, J. (2001), 'Nature, poststructuralism and politics' in Castree and Braun (eds).

Castree, N. (1995) 'Socialising nature: Theory, practice and politics', in *Social nature: Theory, practice and politics*, ed. N. Castree and B. Braun, Blackwells.

Castree, N. and Braun, B. (Eds) (2001) *Social nature: Theory, practice and Politics*, Blackwells.

Demeritt, D. (2001) 'Being constructive about nature', in Braun and Castree (Eds).

Demeritt, D. (2003) 'What is the *social construction of nature*? A typology and sympathetic critique. *Progress in Human geography*, 26 (6): 767-90.

Proctor, J.D. (1998) 'The social construction of nature: relativist accusations, pragmatist and critical realist responses', *Annals of the Association of American geographers*, 88: 352-76.

Bakker, K. and Bridge, G. (2006) 'Material Worlds? Resource geographies and the 'matter of nature'', *Progress in Human Geography*, 30 (1) 5-27.

**(2). The continuing influence of natural science paradigms: Complexity theory and 'emergent structures'**

Sociological work in complexity theory borrows from the recent work of John Urry (and Anthony Giddens), in emphasising the importance of natural sciences thinking about 'flows', and arguing for the changing character and role of (transnational) state power in a network society of flows, fluids and scapes.

There are changes in the use to which 'environmental knowledge' is being put – extreme weather events, green labelling of consumer products, including tourism. This renewed use of 'environmental knowledges' is also deployed in explanation for rising energy and water bills, and it is discussed in relation to the role of environmental regulation in denying developing countries fair access to OECD markets.

These examples illustrate the differences between 'lay' and 'expert' knowledges.

*Confusions also exist about the utility of these knowledges.* Today sustainability is used both as:

- (a) 'Elite science' and
- (b) 'Science critique'.

As elite science it is part of a specialised, esoteric knowledge that can assist, for example, in offering judgements about the probabilities of global climate change.

As science critique, sustainability is employed by NGOs, social scientists and others to critique science itself. It is part of a post-structuralist position that argues that we cannot remove ourselves from the process of social construction. Even the recognition of environmental issues, on this reading, is a socially-determined event. Sustainability discourses, on this reading, provide illustrations of the deeply political nature of science.

However: as we become more dependent on it, so *prediction is increasingly difficult and uncertain. The past is an unreliable guide to the future.* [cf. Wilf et.al. 2003, and 2006 Science on plant diversity in South America, and the discussions over 'refugia']. The conditions of the natural world are changing:

In the domain of environmental policy established markers for the future based on the past are increasingly unworkable and historicist, in Popper's sense: that future acquisitions of knowledge cannot be predicted from past experiences... An obvious example is the new genetics.

Does the acknowledgement of this difference assist in making science and policy more accountable or does it leave us powerless to act?

This, in turn, brings us to consider human agency and institutions.

### ***(3) Contradictions between changing materiality and changing institutions: environmental governance.***

*"When developing forms of scientific cooperation between the natural and social sciences, the key tasks for the social sciences are to formulate forms of governance that trigger reflexivity by de-routinising social practices, activate human agency and outline possible choices in ways that fit the specific risks dynamic of second modernity".*

(Spaargaren and Mol, 2006, p.24).

Much of the debate about sustainability has proceeded *as if* human institutions endure while the environment changes. But human institutions also change, although usually in ways which are not 'co-evolutionary' with the environment (Norgaard 1993).

For example, as societies change the problems of sustainability are frequently those of providing access to limited, 'positional goods' (countryside, clean coastlines, and uncongested cities). However, as economies develop the 'positional goods' to which people expect greater access either suffer from more scarcity or overcrowding.

The 'solution' to these problems is often described in terms of environmental *governance*. This is usually invoked in terms of *improving governance* – either more ethical governance or the need for new institutions to do the governing. Interestingly, new environmental regimes, such as the Millenium Ecosystem Assessment (MEA) 2005 do not provide any insights into how in a 'post carbon' world governance might change. *There are no ideas about governance itself, but rather about the new remit to govern nature.*

The principal innovations conceptually have arisen because of the scale of likely damage caused by climate change. For example, note the way in which *disaster studies* look at 'emergent structures' in the period just after major disasters. These are situations in which 'normal' or pre-existing structures of governance are often challenged, and provide another example of the way in which changes in materiality can lead to new political and democratic openings.

Gert Spaargaren and Arthur Mol, (2006), 'Environmental governance in the global network society', ISA World Congress, Durban).

Spaargaren, G., Arthur Mol and Frederick Buttel (Eds) (2006) *Governing Environmental Flows: global challenges to social theory*, The MIT Press.

Hannigan, J. (2006), *Environmental Sociology*, second edition, Routledge, London.

#### **(4). Post Structuralism.**

[ Arturo Escobar, 1996, 'Constructing Nature: elements for a post-structural political ecology', in Repeat and M.Watts (Eds) *Liberation Ecologies*, Routledge NY. Cf. other Marxist work, by Alan Schnaiberg on the 'technological treadmill' in production, and by James O'Connor on the 'second contradiction' of capital).

#### **'Post-structural political ecology'?**

Some writers have sought to develop a 'post-structural political ecology' [Arturo Escobar].

- This approach begins with 'the growing belief that nature is socially constructed'...
- It explores the discourses of 'sustainable development' and 'biodiversity conservation' in the belief that 'language is not a reflection of reality but *constitutive of it*'.

- *Space, poverty and nature* are seen through the lens of a discursive materialism, suggesting that local cultures 'process the conditions of global capital and modernity'.
- It argues that capital is entering an 'ecological phase', in which nature is no longer defined as an external, exploitable domain (cf. Marx) but ostensible self-management and 'conservation'.
- Capital seeks to use conservationist tendencies to create profit e.g... genetic engineering and biotechnology, to produce pharmaceuticals.

This approach significantly qualifies views on the dialectic of nature and capital.

1. The argument is that capitalist restructuring takes place at the expense of production conditions: nature, the body, space.
2. This can take the form of *both* outright exploitation of nature and *also* 'the sustainable management of the system of capitalized nature'.
3. This 'second contradiction' of capitalism entails deeper cultural domination – even the genes of living species are seen in terms of production and profitability.
4. The implication of this is that social movements and communities increasingly face the double task of building alternative productive rationalities while culturally resisting the inroads of new forms of capital into the fabric of nature and society.
5. This is the dual logic of ecological capital in the North and the South.

### **(5). The hegemony of rational choice.**

Another dimension of post sustainability concerns the extent to which large-scale capital has incorporated and internalised Green policies, in an attempt to widen its market and its appeal.

#### **Ecological Modernisation**

To some writers there was no inherent problem in pursuing sustainable development within the logic of the market economy. Green capitalism was a possibility *en route* to a reality (Welford and Starkey 1996). Indeed, for some business interests and representatives of corporate business, sustainable development was a necessary further stage in the development of capitalism, to be embraced rather than denied.

One of the principal features of *Agenda 21*, the framework for action proposed at the Earth Summit of 1992, was the call for

partnerships between business and environmental groups. The Business Council for Sustainable Development, as well as the International Chamber of Commerce, represented the perspectives of global business at Rio. However, the 'official' corporate response to the Rio Conference, representing the views of over one hundred international companies, was contained in a publication that was stimulated by the Earth Summit itself. *Changing Course* helped conceptualise the phases through which corporate involvement in the environment had passed: the prevention of pollution in the 1970s, measures to encourage self-regulation in the 1980s and a concern to incorporate sustainability into business practices in the 1990s (Murphy and Bendell 1997). The 1990s and the period post-Rio was seen as a turning point in the relation between corporate business and the environment, in which environmental concerns (at least in the case of the largest global players) needed to be internalised, and made a central part of corporate governance.

The public stand taken by some large corporations in the 1990s was more visible than previously, and designed to open up new markets, rather than defend existing ones. One example, cited by Adams (2001) in his review of the Rio process, is that of B&Q, the British hardware chain, which in the mid-1990s argued that the environment was of central concern to shareholders, staff and customers alike. It began to be recognised that the products which customers bought were looked upon *as part of the natural environment, as well as the built environment*, and a corporate response needed to fully acknowledge this fact. At one level this might lead corporations towards forms of 'Green consumerism', which pointed consumers to the environmental standards met by different products, and persuaded companies of the public relations benefits of a 'Green' image. At another level, were more fundamental questions about the material nature of products and services themselves, and the extent to which 'necessary' environmental costs could be internalised.

This second thread has been given the label 'Ecological Modernisation' (Janicke 1991, Mol 2001). During the last two decades this label has been applied freely to several interrelated processes, all of which have sought to develop policies which reduce negative environmental 'externalities'. Essentially Ecological Modernisation refers to the way in which new, cleaner technologies can be utilised effectively by businesses, within a policy framework that is conducive to more sustainable practices, and which holds out the prospect of a 'win/win' situation: stimulating economic growth without increasing pollution.



The leading examples were in consumer markets where environmental costs such as transport, were often heavy, and there were clear advantages in streamlining production systems. This approach – sometimes referred to as ‘industrial ecology’ or ‘life cycle assessment’ (LCA) – had profound effects for companies like Procter and Gamble and Unilever, where the commercial benefits were quickly grasped (Ayres and Simonis 1995).

In other cases large companies sought to establish themselves beyond the boundaries of ‘domestic’ environmental regulation and stringent controls. Garcia Johnson (2000) shows how some Transnational Corporations, stimulated by their experiences on the home market, have even sought to ‘export’ higher environmental standards:

“If multilateral corporations can establish the kinds of rules that favour the technologies and management approaches that they have developed through years of struggle in the United States, they will have an advantage over their competitors from developing countries” (Garcia Johnson 2000, 1).

Taking as his example that of the US-based chemical industry, Garcia Johnson demonstrates how some companies actively encourage corporate voluntarism, in Brazil and Mexico. Garcia Johnson argues that spreading good practice in environmental governance is linked with the disadvantaging of Third World companies on global markets.

Critics of corporate ‘Greening’ have sought to distinguish between the rhetoric of corporate environmentalism and the reality. Stephen Bunker (1996), for example, has criticised the so-called ‘Green Kuznets curve’, the view that as economies develop they become more sustainable, and produce less waste. *Bunker argues that ‘dematerialization’, as seen from the vantage point of industrial ecology, is a much more limited process than its advocates acknowledge*, suggesting that materially ‘lighter’ products often have a greater proportional impact on the environment. Cleaner industry in one location can also mean the redistribution of environmental risks to other locations, and the process of ‘Greening’ industry is neither as transparent nor as disinterested as many corporations avow.

(Adams, W.M. (2001) *Green Development: Environment and Sustainability in the Third World*. Routledge: London. (2<sup>nd</sup> edn).

Ayres, R.U and Simonis, U.E. (1995) (eds.) *Industrial Metabolism: restructuring for sustainable development*, UN University, Tokyo.

Bunker, S.G. (1996) 'Raw materials and the global economy: oversights and distortions in industrial ecology', *Society and Natural Resources*, 9: 419-429.

Garcia Johnson, R. (2000), *Exporting Environmentalism: US Multinational chemical corporations in Brazil and Mexico*, MIT Press, Cambridge MA.

Janicke, M. (1991), *The Political System's Capacity for Environmental Policy*, Free University, Berlin.

Mol, A. (2001) *Globalisation and Environmental Reform: the Ecological Modernisation of the Global Economy*, MIT Press, Cambridge, MA.

Murphy, D.F. and Bendell, J. (1997) *In the Company of Partners: Business, Environmental Groups and Sustainable Development Post Rio*. Policy Press, Bristol.

Welford, R. and Starkey, R. (1996) *The Earthscan Reader in Business and the Environment*, Earthscan: London.

### **Nature as accumulation strategy**

The logic and disciplines of the market, constituted a source of potential conflict for Habermas (1981) and other radical social scientists, precisely because they appeared to devalue the intrinsic qualities of nature – which placed it apart from market capitalism. On this reading sustainability could not be accommodated to market forces; the circle could not be 'squared'.

(Habermas, J. 1981, 'New social movements', *Telos*, 490: 33-37)

Political economy of environmental conditions today [Allan Schnaiberg 2002]:

- 'The treadmill of production' is a concept introduced by Schnaiberg and collaborators in 1980, to examine the environmental contradictions of late capitalism.
- More recently Schnaiberg has turned his attention to 'Ecological Modernisation', critiquing the view that there is a growing independence between the ecological sphere, and political and economic spheres in state and industry policy-making.
- He argues that, far from witnessing significant environmentally-induced transformations, which use technology to *reduce* environmental impacts, modern industry

systematically *undermines* progress on social and ecological goals.

- First, ecological withdrawals from eco-systems increase under advanced capitalism, and
- Second, the state continued to cede power to private sector organisations.
- Third, through increasing *consumption* of goods capitalist societies aggravate the environmental problem.
- Three approaches to political economy and the environment in the 'post socialist' world.
- [Allan Schnaiberg et. al.2002, in A.Mol and F. H. Buttel (Eds) *The Environmental State Under Pressure*, Oxford/JAI].
- Other approaches also re-examine Marxist theory and argue for a more pro-ecology interpretation that focuses on different stages in Marx's own intellectual development. [e.g.. John Bellamy Foster, 1999, *American Journal of Sociology*,105(2) 366-405].

One of the most persuasive Marxist critics of corporate green policy is Neil Smith (2007).

Smith argues that "beginning in the 1980s and 1990s, an extraordinary range of new 'ecological commodities' came on line. Ironically, they owe their existence, first and foremost, to the success of the environmental movement in the 1960s and 1970s". (Neil Smith 2007, 'Nature as Accumulation Strategy', *Socialist Register* 2007, 17).

He sees EM as 'nothing less than a major strategy for ecological commodification, marketisation and financialisation which radically *intensifies* and deepens the penetration of nature by capital'. (17). He quotes the example of 'wetland credits' in California, which in the 1990s in the US prompted a 'wetland mitigation banking' system. (cf. 'set aside' in the UK).

Smith suggests that, following Marxist theory, the process of marketisation of labour produces scarcity where none existed before – restored wetlands provide exchange value 'under the new conditions of created scarcity'.

He goes on to criticise carbon credits for leaving the Costa Rican peasant without a livelihood enhancement 'whereas the US corporate polluter buying credits contributes not only to continued pollution, but to an intensified accumulation of capital'.(19)

'If one takes a wider geographical perspective on wetland mitigation, it is tempting to paraphrase Engel's assessment of 'the

housing question': the bourgeoisie has no solution to the environmental problem, they simply move it around'. (20)

Taking issue with a constructivist perspective Smith argues that their mantra 'nature is discursive all the way down' applies today in a more thorough way, to the *regulation and production of nature*. In his view 'the market has now retaken and recolonised environmental practices' (26). The idea of choice and a broad social discussion has become subordinate to 'narrow class control orchestrated through the market'. (26).

Smith's essential point is that as nature becomes more subject to the market in 'invisible' forms, such as 'commodity futures, ecological credits, corporate stocks, (and) environmental derivatives' so the process becomes increasingly internalised:

*'The extensive production of nature that has characterised capitalism since its infancy has, since the 1970s, been challenged and increasingly superseded by an intensive production of nature... a new frontier in the production of nature has rapidly opened up, namely a **vertical integration of nature** into capital. This involves not just the production of nature 'all the way down', but its simultaneous financialisation 'all the way up'.'*  
(Smith 2007, 31-33).

He is arguing that capital has identified new sectors of production and accumulation, rather as Goodman and Redclift (1990) have argued, with reference to the modern food system. However, I am not sure that Smith's emphasis on the labour process as a framework for thinking about new venues for accumulation is sufficiently flexible to capture the complexity of 'post-structural political ecology' that are most interesting – for example, the mobility of materialities, and new unfolding dimensions of injustice?

## **(6). Sustainability**

***'Sustainability... is closely linked to the erosion of 'development' and a narrow conception of economic modernization as prevailing models for the management of social transformations...It refers to the viability of socially shaped relationships between society and nature over long periods of time '***

(E. Becker and T. Jahn and I. Streis, 'Exploring uncommon ground: sustainability and the social sciences', in Becker and Jahn (eds.) *Sustainability and the Social Sciences*, Zed, 1999).

*This paper began by suggesting that, in the wake of the Brundtland report (1987) there was a perception that 'development' needed to be enlarged and a 'long view' taken of society/nature relations. Has this vision disappeared, been reinforced or simply been deconstructed?*

As the quote from the Stern Report at the beginning of this paper suggests, climate change is now regarded as a 'given', markets are now considered more relevant to policy solutions than ever before, and the reduced dependency on hydrocarbons is widely regarded as the most urgent policy challenge facing us. The 'contradictions' of thinking about sustainability and development have merged into consensus. A realist, science driven policy agenda has been paralleled by a science-sceptical post-modern academy. Neither position represents a threat to the other – since they inhabit quite different epistemological terrain, and address different audiences. In the process we have seen an enlarged academic debate, and one that closely examines the way that sustainability discourses are employed, but at the same time the real-world 'politics' of global change has contracted to the size of a Green consumer product. The policy debate has proceeded against teleological assumptions about 'choice' and 'alternatives', that have been largely devoid of any critical, structural analysis. The difficulty in separating material evidence for climate change from its discussion has not only spawned 'climate deniers' on the one side, but a fear of democratic accountability and engagement on the other. In the 'post-political' world democracy and governance need to be re-thought, to take account of new forms of power, rather than evangelized into 'deliberation'. What has happened to the long view of a "viable, socially-shaped relationship between society and nature" on which earlier discussions of sustainability were premised? What lies beyond the 'post-politics' consensus?