More details/abstract: As a consummately effective 'boundary term', able to link disparate groups on the basis of a broad common agenda, 'sustainability' has moved a long way from its technical association with forest management in Germany in the eighteenth century. In the 1980s and 1990s it defined – for a particular historical moment – a key debate of global importance, bringing with it a coalition of actors – across governments, civic groups, academia and business – in perhaps an unparalleled fashion. That they did not agree with everything (or even often know anything of the technical definitions of the term) was not the point. The boundary work done in the name of sustainability created an important momentum for innovation in ideas, political mobilisation, and policy change, particularly in connection with the UN Conference on Environment and Development (UNCED) held in Rio in 1992. All this of course did not result in everything that the advocates at the centre of such networks had envisaged, and today the debate has moved on, with different priority issues, and new actors and networks. But, the author argues, this shift does not undermine the power of sustainability as a buzzword: as a continuingly powerful and influential meeting point of ideas and politics.

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Sustainability

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Abstract

As a consummately effective 'boundary term', able to link disparate groups around a broad common agenda, sustainability has moved a long way from its technical association with forest management in Germany in the eighteenth century. In the 1980s and 1990s it defined – for a particular historical moment – a key debate of global importance, bringing with it a coalition of actors – across governments, civic groups, academia and business – in perhaps an unparalleled fashion. That they did not agree with everything – or even often know anything of the technical definitions of the term – was not the point. The boundary work done in the name of sustainability created an important momentum for innovation in ideas, political mobilisation and policy change, particularly around the UN Conference on Environment and Development held in Rio in 1992. All this of course did not result in everything that the advocates at the centre of such networks had envisaged, and today the debate has moved on, with different priority issues, and new actors and networks. But, the paper argues, this shift does not undermine the power of sustainability as a buzzword: as a continuingly powerful and influential meeting point of ideas and politics.

Introduction

Sustainability must be one of the most used buzzwords of the past two decades. There is nothing it seems that cannot be described as 'sustainable' – apparently everything can be either hyphenated or paired with it. We have sustainable cities, economies, resource management, business, livelihoods – and, of course, sustainable development. Sustainability has become, par excellence, what Thomas Gieryn (1999) calls a 'boundary term' - one where science meets politics and politics meets science. The 'boundary work' around sustainability - of building epistemic communities of shared understanding of and common commitment to linking environmental and economic development concerns - has become a major concern across the world. In the last two decades, networks of diverse actors have formed, alliances have been built, institutions and organisations have been constructed,

projects have been formulated and money – in increasingly large amounts – has been spent in the name of sustainability. It is at this complex intersection between science and politics where boundary work takes place, and where words, with often ambivalent and contested meanings, have an important political role in processes of policymaking and development.

A (very) short intellectual history

But like all buzzwords, the term sustainability has a history. It was not always that it had such significant connotations. Several hundred years ago, the term was first coined by a German forester, Hans Carl von Carlowitz in his 1712 text Sylvicultura Oeconomica , to prescribe how forests should be managed on a long-term basis. It was, however, not until the 1980s when 'sustainability' came to much wider currency. With the birth of the contemporary environment movement in the late 60s and 70s, and debates about the limits to growth, environmentalists were keen to show how environmental issues could be linked to mainstream questions of development. The commission chaired by Gro Brundtland, former prime minister of Norway, became the focal point for this debate in the mid-1980s, culminating in the landmark report 'Our Common Future' in 1987. The now classic modern definition of sustainable development was offered:

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987a: 43).

The terms sustainability, and more particularly sustainable development, drew on longer intellectual debates across disciplines. From the 1980s there was an explosion of academic debate on these issues, as the terms were projected onto the centre stage of policy debates globally, particularly in the run-up to the World Conference on Environment and Development held in Rio in 1992.

Ecologists had long been concerned with how ecosystems responded to shocks and stresses, and mathematical ecology had blossomed through the 1970 and 80s, with important work from the likes of Buzz Holling and Bob May on the stability and resilience properties of both model and real biological systems (e.g. Holling, 1973; May, 1977). Sustainability could thus be defined in these terms as the ability of a system to bounce back from such shocks and stresses and adopt stable states. Neo-classical economists drew on theories of substitutable capital to define (weak) sustainability. And within economics debates raged over whether such a 'weak' definition of sustainability was adequate or whether a stronger definition, highlighting the lack of substitutability of 'critical natural capital' was needed (cf. Pearce and Atkinson, 1993). Ecological economics meanwhile traced more concrete links with ecological systems, generating such fields as life cycle analysis, ecological footprint assessment and alternative national accounting systems (Common and Stagl, 2005). Elements of these debates were picked up by the business community, where notions of the 'triple bottom line' emerged, where sustainability was seen as one among other more conventional business objectives, resulting in a whole plethora of new accounting and auditing measures which brought sustainability concerns into business planning and accounting practice (Elkington, 1997), and at Rio, the World Business Council for Sustainable Development was launched with much fanfare (Schmidheiny and Timberlake, 1992), bringing on board some big corporate players. Drawing on wider popular political concerns about the relationships between environment, well-being and struggles for social justice, political scientists such as Andrew Dobson (1999), delineated political theories that incorporated a 'green' politics perspective, and where sustainability concerns were put at the centre of a

normative understanding of social and political change. Others offered integrative syntheses, linking the economic, environmental and socio-political dimensions of sustainability into what Bob Kates and colleagues have dubbed a 'sustainability science' (Kates et al, 2001).

By the 1990s, then, we had multiple versions of sustainability: broad and narrow, strong and weak, big S and small s sustainability, and more. Different technical meanings were constructed alongside different visions of how the wider project of sustainable development should be conceived. Each competed with each other in a vibrant, if confusing, debate. But how would all this intense debate translate into practical policy. 1992 was the key moment for this.

Coming of age in Rio

The 1992 Rio conference, convened by the United Nations and attended 178 governments, numerous heads of states and a veritable army of over a 1000 NGOs, civil society and campaign groups, was perhaps the high point – the coming of age of sustainability and sustainable development. This was the moment many hoped when sustainability would find its way to the top of the global political agenda and would become a permanent feature of the way development, both north and south, would be done (Holmberg et al, 1991).

The Rio conference launched a number of high level convention processes – on climate change, biodiversity, and desertification – all with the aim of realising sustainable development ideals on key global environmental issues. Commissions were established, and national action planning processes set in train for a global reporting system against agreed objectives (Young, 1999). At the same time a more local-level, community-led process was conceived – Agenda 21 – which envisaged sustainability being built from the bottom up through local initiatives by local governments, community groups and citizens (Selman, 1998).

These were heady days indeed. Environment and development had, it seemed, finally come of age. Groups such as the London-based International Institute for Environment and Development, the Delhi-based Centre for Science and Environment, the Washington-based World Resources Institute and the Manitoba-based International Institute for Sustainable Development had access to and influence over policy debates that a few years before they could only dream of. The challenge for such organisations – and many others besides who took the sustainable development creed as central to their mission – was to move from theory to practice, from ideals to real results on the ground. What did implementing sustainable development mean? The result was an exponential growth in planning approaches, analysis frameworks, measurement indicators, audit systems and evaluation protocols which were to help governments, businesses, communities and individuals make sustainability real. This was great business for consultants, trainers, researchers and others. But did it make a difference?

Sustainable livelihoods as boundary work

In the late 1990s, particularly in the UK but also more broadly, the term 'sustainable livelihoods' became the signifier of 'good' development. For a period this word pairing became enormously influential in UK international development policy, and a quintessential example of how 'sustainability' – especially when connected to another term – can be a prime mover in boundary work, linking science and policy in novel and potentially positive ways.

Originally coined by a committee working on agriculture and food for the Brundtland Commission during the 1980s (reputedly emerging one evening over discussion in a Geneva hotel), the term 'sustainable livelihoods' first appeared in the Food 2000 report in 1987 (WCED, 1987b). This particular linking of terms was given definitional flesh by Robert Chambers and Gordon Conway in a discussion paper published by the Institute of Development Studies in 1992 (Chambers and Conway, 1992). For a time it languished out of the policy limelight, but with the publication of the UK White Paper on international development in 1997 (DfID, 1997), it was suddenly centre-stage, and seen as a critical element of development thinking for the new department (the Department for International Development, DfID), now with ministerial status and with a dynamic minister – Clare Short – at the helm.

William Solesbury (2003) lucidly documents the policy history of 'sustainable livelihoods' over this period, tracing linkages between researchers, White Paper drafting teams, advisory committees established by the new department, and the bureaucratic manoeverings of key individuals within government. Before long a large section of the department, with a substantial spending budget and a dedicated cadre of staff had adopted the name 'sustainable livelihoods'. In a few short, if busy, months the old style 'natural resource' department had been transformed, according to the hype, into something forward-looking, cross-cutting and dynamic that could meet the 'New Labour' political demands of doing something effective about poverty and development.

Government enlisted external experts, including researchers, NGO workers and others, to think through the implications. A researchers' checklist developed by a team at the Institute of Development Studies (Scoones, 1998) was adapted and embellished and became a 'framework', and, later, a whole suite of 'approaches' (Carney, 1998; 2002). And, with this, the acronyms started to flow, a brand was created and a whole industry of trainers, consultants, web-based information specialists and others were commissioned to make 'sustainable livelihoods' a central thrust of UK development policy.

This flurry of activity and discussion was not confined to the new DfID; other aid agencies looked with interest at what was happening in London. NGOs such as Oxfam were also developing their own approaches (Neefjes, 2000), and even large UN agencies such as the FAO, became interested in the approach as one that went beyond narrow sectoral concerns to a more integrative approach to development and poverty reduction[1].

This was classic boundary work. Scientific concerns, drawing from ecology, economics and politics, merged with specific political and bureaucratic agendas in a process of mutual construction of both science and policy. Alliances were formed spanning government, NGOs, private consultants and academia, linking often unlike organisations and individuals, both north and south. A word (or in this case two) had created it seemed a whole network, loosely affiliated around a set of often rather vague and poorly-defined understandings of a complex and rather ambiguous concept. But at the time – and in certain places, notably DfID – it had an important uses, both conceptual and political.

Things fall apart

[1] See information on the £5m DFID-supported FAO Livelihoods Support Programme at the IDS-hosted information portal, Livelihoods Connect at www.livelihoods.org/lessons/project_summaries/supp4_projsum.html

But like all good things, they must come to an end. While the DfID-centred network disintegrated for parochial, bureaucratic-political reasons, a wider crisis of confidence overwhelmed the up-beat networks centred on ideas of sustainability by the late 1990s. Why was this?

The 1992 Rio agenda was of course extravagantly ambitious, and high hopes were hitched on the processes that it spawned. But not everyone was playing ball. Commercial interests lobbied hard in the US, for example, to dilute the conventions, and, in the end, the US did not sign up. Beyond the geopolitics of sustainability and the particularly recalcitrant role of the US in its new-found position as sole global superpower, there were other hitches to the realisation of the ambitious aims of Rio. Once the heads of state had left, the often newly-created Environment Ministries had the job of seeking budgets and creating a political space back home for environment and development agendas. Given other pressing issues, this was usually an up-hill struggle. Signed up to conventions, much energy was spent on complying with the elaborate consultation, planning and reporting requirements. For cash-strapped, new ministries in developing countries this was not easy. For sure, aid flows helped as agencies re-geared funding to accommodate the new enthusiasm for environmental issues, but this was often not enough to bring sustainable development beyond the rhetorical gloss and the often half-hearted routinisation of action planning, indicator monitoring and 'sustainable development' projects.

Buzzwords – and the ambitions with which they are associated - that become mainstream and incorporated into routine, bureaucratic procedures often (perhaps always) suffer this fate. For many commentators writing post 2000, the simplistic managerialism of many initiatives labelled 'sustainable development' left much to be desired (Berkhout et al, 2003). Critiques focused on the lack of progress on major targets set in 1992, the endless repackaging of old initiatives as 'sustainable' this or that, and the lack of capacity and commitment within governments and international organisations to really make the ideals of sustainability real in day-to-day practice (Vogler and Jordan, 2003). With the default bureaucratic mode of managerialism dominating – and its focus on action plans, indicators and the rest – the wider political economy of sustainable development was being missed out on, many felt. "It's politics, stupid" commentators argued. And, with mainstreaming and bureaucratisation, the urgency and political vibrancy is lost, and, with this, a dilution and loss of dynamism in a previously energetic and committed debate.

Long live sustainability

But all was not lost. While the coalitions formed around and following Rio may have dispersed, fragmented and turned in on themselves, from the late 1990s there has been revival – but in different guises – of sustainability debates. And this time politics is more to the fore.

Rather than emerging from a rather ethereal and abstract idea of sustainability derived from theory, debates in recent years have focused on some big issues which hit the headlines internationally. These have resulted in both public and, usually later, political reactions. For example, the controversy around genetically-modified (GM) crops which peaked in Europe in the late 1990s and early 2000s, had many political and policy reverberations internationally. This was a debate about, inter alia, the sustainability of farming systems, the future of food, human health and biodiversity and corporate control of the agri-food system (GEC Programme, 1999). In the same way, the climate change debate really only began to be taken seriously post-2000. No longer was this a discussion on the arcane specifics of global climate models, but

a real political and economic issue, which people and governments had to take seriously. Concerns about the environment and development drivers of new global diseases and pandemics were also pitched into the public and political realm first with SARS and then avian flu.

All of these issues – and the list could go on – are centred around classic 'sustainability' questions: they each involve complex and changing environmental dynamics having an impact on human livelihoods and well-being; they all have intersecting ecological, economic and socio-political dimensions; and, as with an increasing array of environment-development issues, they have both local and global dimensions.

But what is equally sure is that the existing 'sustainable development' institutional and policy machinery is incapable of dealing with them effectively. The Kyoto protocol on climate change has all but collapsed, and the options for a post-Kyoto settlement, that involves the US, China and India, has yet to be elaborated. Questions of biosafety surrounding GM crops have not be resolved, and the UN Biosafety Protocol seems far from an effective answer. And recent disease scares have shown that neither global institutions nor local health systems are able to deal with the likelihood of a global pandemic.

So how have new coalitions, networks and affiliations formed around the concept of 'sustainability'? By contrast to the 1980s/90s Brundtland-Rio period, today there is nothing that can be constructed as a global consensus. While the post-Rio institutions – such as the UN Commission for Sustainable Development and the secretariats of the different conventions – still exist, they are not necessarily seen as the rallying points for new initiatives. For these we have to look beyond these to new actors and groupings.

The 2002 ten-year post-Rio conference in Johannesburg was not such a big deal as its predecessor, but it did attract some interesting groups and some strong debate – and, importantly, much dissent. Flashpoints surrounded the still very live GM debate, for example, where anti-GM activists and social movements were pitched against corporations who had re-branded themselves as committed to 'sustainable agriculture' globally. More generally, there was a hot debate as to whether the 'sustainable development' mainstream had sold out to the needs of business and global capital or whether such accommodation and dialogue with big business was the only route to getting corporate responsibility around sustainability issues (Wapner, 2003).

And debate also flourished around the pros and cons, successes and failures of the divergent routes of the Rio commitments - between local solutions (around Agenda 21) and international legal processes (around the global conventions). Some groups argued that local solutions had shown more promise, particularly where intransigent governments subject to extreme corporate lobbying pressure (notably the US, but perhaps increasingly in Asia) were unable to realise any sustainable development goals, yet cities and neighbourhoods could make great strides towards, for example, climate change, green space conservation or recycling targets. Others, by contrast, argued that the big sustainability agendas remain global, and with an increasingly globalised economy and inter-connected world, seeking some form of international agreement on such issues – perhaps with new institutions such as a World Environmental Organisations – remained, despite the pitfalls and obstacles, a key objective for achieving sustainability (Newell, 2001).

Thus by 2002, the ‘sustainable development’ movement, so confidently ambitious at Rio a decade before, was more muted, more fractured, and perhaps a bit more realistic. The term ‘sustainability’ has however persisted, and indeed been given more conceptual depth around explorations of resilience (cf. Folke et al, 2002; Clark and Dickson, 2003). As a boundary term, linking diverse groups – even those who violently disagree with each other – it remains a useful unifying link. To be effective in this boundary work, remaining contested, ambiguous and vague is often essential. While academics continue to endeavour to refine its meaning, locating it in ever more precise terms within particular disciplinary debates, it is the more over-arching, symbolic role – of aspiration, vision and normative commitment – that remains so politically potent.

Where next? Reinventing a buzzword

So what of the future? Will sustainability become the unifying concept of the 21st century as many so boldly proclaimed just a few years ago? Certainly the 1990s managerialism and routinised bureaucratisation has been shown to have its limits. While ‘sustainability’ related commissions, committees and processes persist in various guises, they have perhaps less political hold than before. But with climate change in particular – and wider risks associated with environmental change, whether epidemic disease or biodiversity change - now being seen as central to economic strategy and planning, there are clear opportunities for the insertion of sustainability agendas in new ways into policy discourse and practice.

But can an old buzzword be reinvigorated and reinvented for new challenges, or does it need discarding with something else put its place? Certainly terms associated with sustainability – such as resilience, robustness, diversity and precaution – are all seen more frequently in policy debates these days (Stirling, 2007). But they all have direct links to sustainability, both intellectually, institutionally and politically. So the lineage persists. Future buzzword archaeologies will no doubt trace transmutations, adaptations and shifts, but, in my view at least, sustainability – and the wider agenda it inspires – is here to stay.

References

Berkhout, F., Leach, M. and Scoones, I. (eds.) (2003). Negotiating Environmental Change. New Perspective from Social Science. Cheltenham: Edward Elgar.

Carney, D. (2002) Sustainable Livelihoods Approaches: Progress and Possibilities for Change. London: Department for International Development.

Carney, D. (ed.) (1998) Sustainable Rural Livelihoods: What contribution can we make? London: Department for International Development.

Chambers, R. and Conway, G.R. (1992) 'Sustainable Rural Livelihoods: Practical Concepts for the 21st Century', Discussion Paper 296. Brighton, UK: Institute of Development Studies.

Clark, W. and Dickson, N. (2003). Sustainability science: the emerging research program. Proceedings of the National Academy of Sciences, 100: 8059-61.

Common, M. and S. Stagl, 2005, Ecological Economics - An Introduction. Cambridge: Cambridge University Press

DFID (1997) Eliminating World Poverty: A Challenge for the 21st Century, White Paper on International Development, Cm 3789. London: Stationery Office.
Dobson, A. (1999) Justice and the Environment: conceptions of environmental sustainability and dimensions of social justice. Oxford: Oxford University Press.

Elkington, J. (1999) Cannibals with Forks: The Triple Bottom Line of 21st Century Business. London: Capstone.

Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C., Walker, B. (2002). Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations. Ambio: A Joural of the Human Environment, 31: 438-440

GEC Programme (1999). The Politics of GM Food: Risk, Science and Public Trust. Sussex University, Brighton: ESRC Global Environmental Change Programme

Gieryn, T. (1999). Cultural Boundaries of Science: Credibility on the Line. Chicago: Chicago University Press.

Holling, C. S. (1973). Resilience and stability of ecological systems. Annual Review of Ecology and Systematics 4:1-23.

Holmberg, J., Bass, S. and Timberlake, L. (1991). Defending the future: a guide to sustainable development. London: Earthscan.

Kates, R.W. (2001). Environment and development. Sustainability science. Science.292:641-2

May R. (1977). Thresholds and breakpoints in ecosystems with a multiplicity of stable states. Nature. 269:471-7

Neefjes, K. (2000) Environments and Livelihoods: Strategies for Sustainability. Oxford: Oxfam.

Newell, P. (2001). New environmental architectures and the search for effectiveness. Global Environmental Politics, 1: 35-44.

Pearce, D. and Atkinson, G. (1993) Capital theory and the measurement of sustainable development: An indicator of" weak" sustainability. Ecological Economics, 8: 103-108.

Schmidheiny, S. and Timerblake, L (1992) Changing Course: a global business perspective on development and the environment. Cambridge MA: MIT Press.

Scoones, I. (1998) 'Sustainable Rural Livelihoods: A Framework for Analysis', Working Paper 72, Brighton, UK: Institute for Development Studies.

Selman, P. (1998) Local Agenda 21: Substance or Spin? Journal of Environmental Planning and Management, 45: 553-553.

Solesbury, W. (2003). Sustainable Livelihoods: A Case Study of the Evolution of DFID Policy. ODI Working Paper, 217. London: Overseas Development Institute.
Stirling, A. (2007) Resilience, Robustness, Diversity: dynamic strategies for sustainability. Paper for ESEE Conference, Leipzig, June 2007

Vogler, J. and Jordan, A. (2003). Governance and the environment, pp. 137-58, in: Berkhout, F., Leach, M. and Scoones, I. (eds.). Negotiating Environmental Change. New Perspective from Social Science. Cheltenham: Edward Elgar.

Wapner, P. (2003). World Summit on Sustainable Development: Toward a Post-Jo'burg Environmentalism. Global Environmental Politics, 3: 1-10.

World Commission on Environment and Development (1987a) Our Common Future: Report of the World Commission on Environment and Development. Oxford: Oxford University Press.

World Commission on Environment and Development (1987b) 'Food 2000: Global Policies for Sustainable Agriculture', Report of the Advisory Panel on Food Security, Agriculture, Forestry and Environment. London: Zed Books.

Young, O. (ed.) (1999) The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms. Cambridge MA: MIT Press.