# FAULTLINES IN THE CONCEPTS OF SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

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Currently there is widespread support for the twin notions of sustainability and sustainable development in government, corporate and environmental circles in South Africa.[i] However, as soon as one starts to dig below the surface of public rhetoric, a number of serious questions emerge about our general acceptance of these concepts. Bureaucrats will tell us that sustainability or sustainable development are empty concepts, too vague or ill defined to be of any use in practical decision-making and real life policy implementation (Jacobs 1999: 22). Similarly, environmentalists will point out that the notion of "wise" or "sustainable use" is a "dangerous influence that is a threat not only to wildlife and nature in Africa, but indeed to natural resources world wide" (Patterson 1998: 63). Instead of contributing towards the protection of nature and ensuring a continued availability of resources, it is claimed that "sustainable use" is nothing but a green mask used by industry and governments to justify and continue the ruthless exploitation of natural resources as it has always been done before. In the same vein we often hear the warning that aims such as sustainability "are lightly professed in theory without looking at all at practical realization" (Achterhuis 1994: 198).

On a more radical level, philosophers draw attention to the fact that the notions of sustainability or sustainable development could be seen as internally incoherent, and therefore not as valuable as a policy principle as one would have thought at first glance (Jickling 1999). They also point out that in some of its interpretations the notions of sustainability and sustainable development rest on highly dubious assumptions that does not help us to curb our unrestrained exploitation of nature, but rather stimulate and accelerate it (Bryan Norton 1992: 99; 1999). Furthermore, objections are often raised to the highly moralistic and therefore deterministic overtones that accompany much of the propaganda for sustainability and sustainable development (Jickling 1999): it has become the latest ideology in terms of which the whole of society has to be ordered anew, totally and comprehensively.[ii]

In this paper I would like to show in broad outline that these objections can be overcome in principle, provided that we understand how they (these objections) are linked to a number of internal tensions or "faultlines" within the concepts of sustainability and sustainable development themselves. These faultlines often go unnoticed, and account for a maze of mutually exclusive conceptions and models of sustainability / sustainable development. Contradicting and undermining one another, these conceptions and models can hinder and even paralyze us in our discussions about the meaning and implementation of sustainability / sustainable development. However, once these tensions have been recognized and adequately conceptualized, it can enable us to enter into more productive debates with one another, including those that sharply differ from us, about the challenges we face in order to secure strategies for sustainable living and resource utilization.

In a recent essay Michael Jacobs (1999) has differentiated between four of these fault lines in so far as they have to do with:

- The degree of environmental protection that is envisioned to attain sustainable development
- The emphasis placed on equity as a prerequisite for sustainable development
- The measure and nature of participation required to attain sustainable development, and
- The scope of the subject area covered by the concept of sustainability / sustainable development.

According to Jacobs, on each one of these fault lines two principally opposing and competing conceptions (or ideological positions) of sustainability / sustainable development can be found, with a continuum of possible positions between the two polar extremes. This accounts for the highly contestable character of the concepts of sustainability / sustainable development. Like many other political concepts such as democracy, liberty and social justice, the meaning of sustainability / sustainable development is up for grabs (Dobson 1999: 6). While everyone may agree on a rhetorical level on the core notions of the concepts as they have been conceptualized since the 1970s, a political and ideological battle exists between different conceptions of sustainability / sustainable development, depending on which position is adopted in terms of the four faultlines mentioned above.

In a highly schematic and summarized form that does not really do justice to the complexity of the interaction between them, eight different conceptions of sustainability / sustainable development can be distinguished from one another. They are represented in the four tables below.

*Degree of environmental protection*

In terms of the degree of environmental protection required to attain it, a distinction can be made between a *weak* and a *strong* interpretation of sustainability / sustainable development. This can be summarized in the following table (cf. Jacobs 1999: 31-32).[iii]

| **Weak interpretation of S / SD**[iv] | **Strong interpretation of S / SD** |
|---|---|
| Adheres to a less stringent notion of environmental protection | Adopts a stringent notion of environmental protection |
| Commitment to environmental protection (only?) where economically viable or affordable | A strong commitment to living within the limits of the carrying capacity of the biosphere |
| The environment is important for utilization by humans – and only in so far as it has a use value for them | Certain aspects of the natural environment has intrinsic value, regardless of the value or dis-value it has for humans |
| Economic activity should not be confined to predetermined environmental limits | Economic activity should be confined to the carrying capacity and maximum upper limits of resource use |
| Methodology:<br>1. Balancing or trading off of the benefits of economic growth against those of environmental protection.<br>2. Cost-benefit analysis.<br>3. Utilitarian calculus. | Methodology:<br>1. Determining of the maximum population of a species that an ecosystem can support.<br>2. Determining of upper limits of resource use that can be maintained in future (maximum sustainable yield) |
| No aspect or level of environment is regarded as inviolable | Amount and type of economic activity should "fit in" with natural ecosystems |
| Typical institutional home: governments, business, industry, resource economics | Typical institutional home: ecological sciences and environmental economics |
| Related concepts:<br>1. Weak sustainability<br>2. Maintaining total capital stock<br>3. Constant capital rule<br>4. Infinite intersubstitutability of natural, human and financial capital | Related concepts:<br>1. Strong sustainability<br>2. Maintaining natural capital stock<br>3. Constant natural capital rule<br>4. Non-intersubstitutability of different kinds of capital |

*Equity*

In terms of the emphasis placed on equity as a requirement for sustainable development, Jacobs (1999: 32-33) makes a distinction between an *egalitarian* and a *non-egalitarian* conception:

| **An egalitarian conception of S / SD** | **A non-egalitarian conception of S / SD** |
|---|---|
| Proponents strive to raise the living standards of the poor.<br>Emphasis falls on development issues: improving the living conditions of the destitute. | Proponents strive to maintain their own living standards.<br>Emphasis falls on green issues: environmental protection. |
| National and global resources should be distributed in favour of poor countries and people | No or non-committal mention of national or global resource distribution |
| Calls for a reduction of consumption of global resources | Rejects the challenge to change consumption patterns and international economic relations characterizing the industrialized world |
| Ecological footprint of Northern countries should not invade the limited ecological space appropriated by countries in the South | Consumption patterns tend to impact on environments of other countries.<br>Tends to defend an "imperialist" regulation of resources in the South, e.g. forests. |
| Typical political home:<br>The South<br>Radical political parties and NGOs in the North | Typical political home:<br>The North<br>Conservative political parties and NGOs in the North (as well as in the South) |
| Salient example: Brundtland Report's emphasis on the eradication of poverty | Salient example: Insistance on preservation of rain forests in the South in order to counter effects of $CO_2$ emissions in the North |

This contrast between an egalitarian and non-egalitarian interpretation of sustainability / sustainable development has, for instance, led to serious tensions on various points between Southern and Northern countries at the Earth Summit in Rio in 1992.

*Participation*

In particular in documents emanating from the Rio Earth Summit, it was recognized that sustainable development requires the political involvement of all groups or stakeholders in society. This, however, constitutes a third "fault line" in terms of which interpretations of sustainability / sustainable development can diverge. On the extreme poles of this fault line a *top-down* and a *bottom-up* interpretation of participation for sustainability / sustainable development can respectively be placed (Jacobs 1999: 26, 27, 34, 35). This can be summarized as follows:

| **A bottom-up interpretation of S / SD** | **A top-down interpretation of S / SD** |
|---|---|
| Commitment to full participation as something with intrinsic value.<br>Participation is good in its own right. | Participation has only instrumental value; where not required it is not espoused |
| Setting objectives as well as implementation is subject to participative processes | Participation is usually only required for the implementation of SD; not to decide about objectives |
| | If participation is required to determine objectives, it takes the weak form of consultation (of experts) |

| | |
|---|---|
| The objective is to involve much more than just an elite of academics and specialists | Participants are restricted to the major stakeholders of society: business, local government, large NGOs |
| Ordinary members of public and community organizations are involved | Ordinary members of public usually not involved |
| Example:<br>Guidelines for participation in Local Agenda 21 | Example:<br>Consultative "round tables" to determine national policies or strategy |

With regards to the tensions in this area, Jacobs (1999: 34, 35) makes two salient observations. Firstly he points out that the top-down model of participation often serves as a smokescreen for government inaction. It often happens that governments decide on objectives, leaving the responsibility of implementation to everyone else (businesses, individuals, voluntary organizations) except the central government. Secondly he points out that the ideal of full participation can create problems: it can become a goal in itself, elevating whatever emerges from participative, multi-stakeholder socio-political processes to the level of unquestionable interpretations of sustainability / sustainable development.

*The scope of the subject area*

A fourth area of major contention between different conceptions of sustainability / sustainable development has to do with the scope of the subject area covered by the concept of sustainable development.

| **Scope of S / SD: Environmental protection** | **Scope of S / SD: Social development** |
|---|---|
| Protection of the environment is the dominant motivation for SD | Environmental protection is one goal amongst many others equal to it |
| Education, health, satisfaction of development needs, participation of the poor and women, commitment to indigenous practices and communities are *derived* from the central motivation of environmental protection | SD also entails concerns in fields such as resource use, pollution, biodiversity, meeting local needs locally, work, health, freedom from fear of crime or persecution, access to information and education, participation, equal opportunity for culture and leisure, and beauty/human scale/diversity. These are all *central* and *essential* to SD. |
| A narrow interpretation of sustainable development | A much wider interpretation of sustainable development |
| Legitimacy is drawn from notions of carrying capacity and ecological limits | Legitimacy is drawn from the notion of quality of life |
| SD is essentially an environmental concept | SD is much wider than just an environmental concept, describing a new goal of economic, social and political life |

To this another two observations can be added. From the contrasts outlined in the table above it is evident that a new, radically expanded interpretation of sustainability / sustainable development can be given that goes way beyond ensuring that *ecological* processes continue indefinitely. In terms of the right hand column above, one can speak of social "sustainability". This could include the notion of protecting and maintaining communities and cultures as much as the environment (Jacobs 1999: 37). Environmental purists, however, may want to object to this expansion on the grounds that it takes the concept of sustainable development into areas where it will "cease to be useful, merely becoming a new term for generalized 'progress', its objectives a mere wish list of desirable social goods" (Jacobs 1999: 37).

According to Jacobs, these conceptions do not have an internal logical connection amongst them. They function independently from one another, although it is true in real life that the same person may hold on to one set of interpretations that, together, can form a distinct *model* of sustainability or sustainable development.

It often happens, for example, that the same person will combine the strong, egalitarian, bottom-up and broad interpretations of sustainable development. This generates what Jacobs (1999: 38) refers to as the *radical model* of sustainable development, and is typically found amongst greens, environmental activists, and development oriented community based organizations. On the other side of the spectrum, the weak, non-egalitarian, top-down, and narrow interpretations of sustainable development combine to form a *conservative model* that is typically found in the circles of national governments, industry and business. In both of these models the core ideas may overlap, but they in fact entail support to very different philosophies (ideologies) and practices.

The value of this overview of positions is that it can help one to draw a conceptual map, albeit a fairly crude one, to negotiate one's way through the minefield of clashes that characterize current discourse about the meaning and implementation of sustainability / sustainable development. Formulated differently: this taxonomy can help us to determine with much more clarity what is being referred to, and even what kind of politics is adopted when people adopt different or adverserial positions in the debate about sustainability / sustainable development. A third way to state it, is that this taxonomy can help one to determine on which particular issues people clash when they differ about the goals we set for social development and environmental protection.

A further conclusion from this analysis is that the notions of sustainability / sustainable development can be manipulated for various ideological purposes. If a conservative model of sustainability / sustainable development is followed, the emphasis will typically fall on the narrower issues of nature conservation and the maintenance of current patterns of production and consumption, with only minor adjustments so as to ensure that the resource base of our human endeavour can be maintained indefinitely. On the other hand, if a radical model of sustainability / sustainable development is followed the emphasis will typically fall on structural changes in the economy, politics, institutions and individual lifestyles so as to ensure that a fairer distribution of resources can be achieved throughout the world and between generations, while staying within the carrying capacity of supporting ecological systems.

From these observations then it is already evident that the concepts of sustainability / sustainable development entails much more than the *quantitative* notion of something that can last indefinitely, i.e. forever. It also entails pertinent *qualitative* elements entailing answers to value questions that cannot be deduced from a quantitative concept of sustainability / sustainable development alone (Achterberg 1994a: 36). These value questions are often not explicitly stated, nor are the answers to them clearly articulated. We gain access to these value questions if we ask ourselves what it is that is so important that we wish to sustain it (i.e. that we wish to see it lasts forever), why this is so important to us, how we would like to ensure its sustainability, and what will count as indicators so as to determine whether we have moved towards sustainability or further away from it. Different answers are possible on these value questions, placing us on different sides of the divides represented by the faultlines discussed above. For our discussions of the theme of sustainability in the mining sector of South Africa, it is essential that we explore these value questions in more depth, and give plausible and well-articulated justifications for the value choices that we make in our answers to these questions.

This analysis also points to the question whether we have ever really engaged with the complexities of articulating the meaning of sustainability or sustainable development in a

manner that appropriately and creatively respond to the highly problematic state of affairs that we currently find ourselves in, namely unsustainable development, unsustainability, or unsustainable living. It points to the question whether we have up till now only paid lip service in our responses to the challenges that we try to articulate with concepts such as sustainable development and sustainability. It points to the question whether a conservative model of sustainability - that pretty much leaves the world as it is – is adequate to respond to the multidimensional question what it means in concrete terms on a personal, institutional, national and international level to live within the limits of supporting ecosystems, to work towards a fair distribution of resources in the world, today and in the future, and to make room for participative democracy when we have to determine what weight we should give to environmental protection, the integrity of nature and quality of life in our thinking about social, political and economic development.

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## ENDNOTES

[i] For the purposes of this paper I assume some familiarity with the history of the emergence of the concepts of sustainability / sustainable development since their inception in the early 1970s. Elsewhere (http://www.sun.ac.za/philosophy/eva/history.htm) I have shown that there has been contrasting, and to some extent even mutually exclusive discourses about sustainability / sustainable development throughout this history, but also that the two main streams of this history have to a large extent converged in the concept of *sustainable living* that has been formulated in *Caring for the Earth* (1991). In this seminal publication, sustainable development has been defined as "improving the quality of human life, while living within the carrying capacity of supporting ecosystems" (IUCN e.a. 1991: 10). Throughout this history, it has also been emphasized that sustainability / sustainable development are strong moral concepts in which three ethical notions stand central, namely:

- Inter-generational justice (a concern for the well-being of future generations that requires of us not to compromise their abilities to meet their needs)
- Intra-generational justice (a concern for the well-being and development of the poor of the world that requires of us to ensure a more equitable distribution of resources in the world, as well as joint, participative decision-making about it)
- Environmental protection and respect for life (a concern about the manner in which we impact on natural systems sustaining our lives that require of us to assume an environmental ethic in which an attitude of respect for nature in its own right, over and above the mere use or resource values that it has for us as humans, is fostered).

[ii] This objection has to do with the problem of legitimisation that emerges in a liberal democracy if a government chooses to support the normative notions of sustainability or sustainable development. According to liberal political theory, the state should fulfill a minimal, neutral role in society. The moment it supports a particular notion of the good life (at certain levels the concepts of sustainability and sustainable development also function as particular interpretations of the good life), the state looses its neutrality, and therefore its legitimacy. The discussion of this theme falls outside the scope of this paper, but interested readers can explore it further in Achterberg (1994b), Jacobs (1994), Wissenburg (1998) and Dobson (1999).

[iii] All of the tables in this paper used to summarize the conceptual tensions under discussion have been drawn up by this author and not by Jacobs (1999). These tables therefore represent an interpretation of Jacobs' perspectives in this regard. The categories used and distinctions made within these tables are in many cases an adaptation or elaboration of points made by Jacobs.

[iv] S stands for sustainability. SD stands for sustainable development.

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