

Sustainable Development or Biodiversity Conservation?: a very brief review for REC

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I was asked to unpack the concepts of “sustainable development/sustainability” (I will refer to it as SD in this document), and “biodiversity” to inform proposed changes to the Mission Clause in REC’s constitution.

The concepts are described and briefly critiqued, links are made to legislation and policy, and how they are interrelated is briefly described.

Finally, in the conclusion a recommendation is made about the mission clause.

Sustainable Development / Sustainability (SD)

The concept of SD was coined for the first time in 1980 in a report by the IUCN. Although it has entered the mainstream and its adoption (and appropriation) has been extremely successful, it remains a contested concept. It is a decision-making framework that attempts to prescribe certain norms and standards, although the latter are vague¹.

There are many definitions of SD. The most well-known is the Brundtland Commission definition of 1987:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

It makes no mention of “the environment”, nature or ecological systems. SD is firstly about human development with social and generational justice being emphasised. Consequently, there have been many definitions since, such as Goodland and Daly’s²:

Sustainable development is development without growth in throughput of matter and energy beyond regenerative and absorptive capacities.

Of late some have advanced the concept of “neo-sustainability”, which is “*the ability of an activity to sustain a system by improving its quality and operating within its limits*”. It

¹ Dernbach, JC & Cheever, F. 2015. Sustainable Development and Its Discontents. *Transnational Environmental Law*, 4:2, pp. 247–287. Cambridge University Press. Available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/3913449EEF56F22F4928645115E7141F/S2047102515000163a.pdf/sustainable_development_and_its_discontents.pdf

² Goodland, R. & Daly, H. 1996. Environmental sustainability: Universal and non-negotiable. *Ecological Applications*, 6(4), 1002-1017.

emphasises 3 core principles: natural limits to growth, the primacy of the environment, and systems thinking³ - or ecological SD.

Clearly there is a continuum of interpretations and understandings of SD from what is called “**weak**” SD to “**strong**” SD. “Weak” SD can be characterised as **mainstream SD** as well. Table 1 represents the extremes somewhat superficially⁴.

Table 1: “Weak” and “Strong Sustainable Development/Sustainability

	“Weak” SD	“Strong” SD
Orientation	Human centred (anthropocentric)	Nature centred (ecocentric)
What is to be sustained?	Human life	The creative fabric of natural and cultural evolution
Why?	Human survival; quality of life	For life in all its forms
For whom?	This and future human generations	Every human and non-human being now and in the future
By whom?	Experts. Top down.	Participation by people with indigenous and local knowledge and technical and scientific experts.
How?	Incrementally. States, leadership forums, business think tanks.	Globally networked local solutions, policy change, systemic change, social movements.
Central criterion	Maintain gross (natural, financial, social) capital over time Conservation of nature as provider of resources for human use (sustainable use)	Maintain and enhance conditions for creative evolution of nature and culture. Nature is valued for its own sake (intrinsic value) as well as its ecosystem services

A picture is worth a thousand words. Figure 1 roughly depicts mainstream and “strong” SD. **SD is often described in the mainstream as comprising 3 pillars.** This approach betrays the view that **natural, social and financial capital are inter-substitutable**, e.g. a natural forest, whatever its biodiversity, could be replaced by a plantation so that total capital is maintained. The forest/plantation’s only value would be as a resource for wood, or biomass energy or carbon sequestration; its biodiversity would not be valued and consequently lost.

Secondly, the choices or decisions that governments, business leaders and communities would make would involve **trade-offs** between the 3 pillars, which explains why nature is always in retreat. The only limits that are recognised are technology and social organisation.

³ Dernbach & Cheever.

⁴ Derived from Swilling, M. 2007. What does sustainability mean? Lecture slidedeck from the Sustainable Development Programme, Sustainability Institute, Stellenbosch University, and Hattingh, J. 2001. Conceptualizing ecological sustainability and ecologically sustainable development in ethical terms: Issues and challenges. *Annale*. 2. Stellenbosch University .

The more powerful construct is the **embedded system model** on the right: an economic system functions within a socio-political system, and **both are dependent on - and “wholly owned subsidiaries” of - the ecology of nature** with its ecosystem services, regenerative capacities and ecological limits.

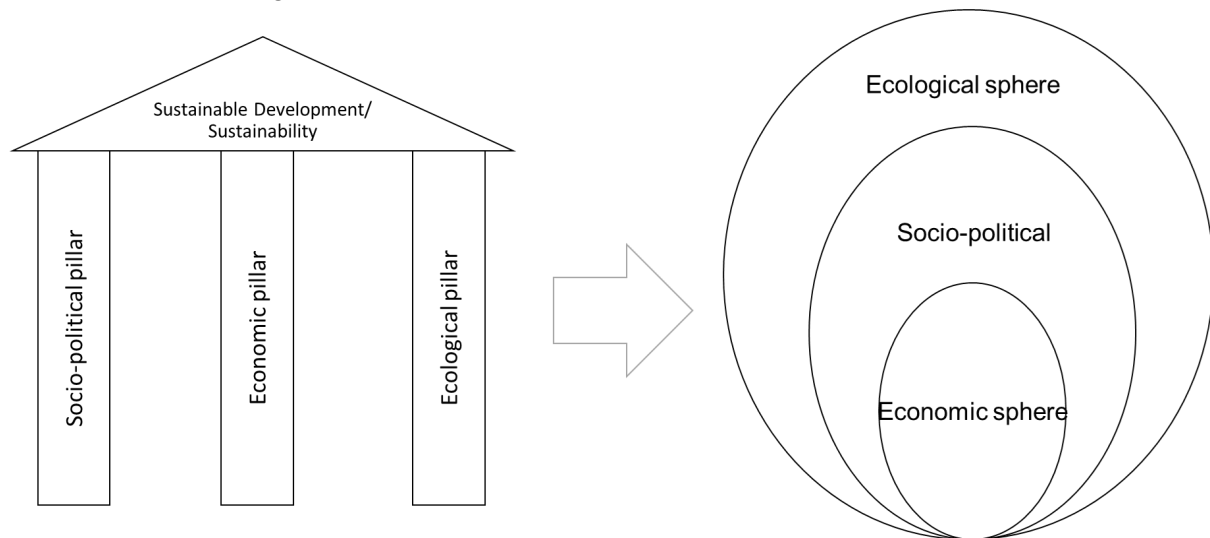


Figure 1: Representing “weak” (mainstream) and “strong” SD diagrammatically

Furthermore, even the concept of “development” itself is increasingly contested, as is the contention that economic growth - which drives material and energy throughput, ecological destruction, waste and pollution - is necessary for human development. As Kate Raworth, an Oxford economics professor, has pointed out, even Kuznets, who proposed growth in GDP as an indicator, warned against its use as a proxy indicator for human welfare⁵. She and others have argued that the **goal of an economy** is not growth, but rather to enable (all) humans to thrive, and for humans to thrive all other life and the planet must thrive. This is a whole other debate, but it should be intuitive that humans cannot grow an economy infinitely on a planet with ecological limits - hence the more recent concepts of **dematerialisation, decarbonisation, degrowth⁶ and “green growth”**. Academic literature about the latter two economic concepts is worth following.

SD in South African environmental law and policy

SD is well integrated into South African environmental law and policy: in the Bill of Rights of the Constitution, various NEMA acts, except the Biodiversity Act of 2004 where there is emphasis on “sustainable use of biological resources”, the Draft White Paper on Conservation and Sustainable Use of South Africa’s Biodiversity 2022⁷, regulations at all levels of government, etc. However, they all subscribe to a “weak” form of SD with much emphasis on sustainable use, social justice and equity, with human wellbeing as the focus.

⁵ Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. Random House.

⁶ Hickel, J. 2020. *Less is More: How Degrowth Will Save the World*. Random House.

⁷ Republic of South Africa. 2022. Draft White Paper on the Conservation and Sustainable Use of South Africa’s Biodiversity. *Government Gazette*, No. 46687, 8 July.

The draft white paper even drops a Freudian slip when it refers to GDP as “growth domestic product”.

However, “ecological” SD is enshrined in the Bill of Rights⁸, thus recognising natural limits and that natural ecosystems provide the conditions for all life. The draft white paper is a curious document. Although it emphasises people first, sustainable use of biodiversity and biodiversity being of value to people mainly, it also gives a nod to the intrinsic and existence value of biodiversity, animal wellbeing and recognises the embedded system model of sustainability in its principles. The litmus test is, however, when decisions and choices are made, how these often conflicting values and principles are integrated and traded off. Most often nature and biodiversity get the short end of the stick, as the data shows below.

Critique of SD

As mentioned, SD is a contested concept, it invariably accelerates the exploitation of nature (and thus the loss of biodiversity), it is anthropocentric and internally incoherent⁹ - an oxymoron - especially if SD is synonymous with sustainable growth¹⁰.

There are many definitions and a diversity of understandings and interpretations, even around the more concrete concepts such as the Sustainable Development Goals, as alluded to above, depending on one’s worldview¹¹. SD has successfully been appropriated by the corporate sector and governments for their own purposes. Engelman has coined the term “sustainababble”: “Today the term ‘sustainable’ more typically lends itself to the corporate behaviour often called greenwashing. Phrases like sustainable design, sustainable cars, even sustainable underwear litter the media”¹².

Finally, more radical critiques characterise SD’s origins as being elitist and imperialist in nature, in that its implementation only benefits certain societies and classes, and not all people¹³.

What does the data on SD show?

Almost all the Sustainable Development Goals (SDG) continue to head in the wrong direction¹⁴. Progress on the nature-related SDGs (6, 13, 14, 15) are particularly dire. SDGs 14 and 15 show that biodiversity is in accelerating retreat.

⁸ Hattingh, and Glazewski, J. 2000. *Environmental Law in South Africa*. Butterworths.

⁹ Hattingh

¹⁰ Dernbach & Cheever

¹¹ Planetary Project. 2017. Criticism of the concept of sustainable development. Available: http://planetaryproject.com/planet_project/critical/.

¹² Dernbach & Cheever

¹³ Planetary Project

¹⁴ United Nations. 2022. The Sustainable Development Goals Report 2022. Available: <https://unstats.un.org/sdgs/report/2022/>.

Biodiversity

Biodiversity has been tightly defined and understood as a scientific concept for decades, although the term is possibly poorly understood by laypeople.

Biological diversity, or biodiversity, is defined as:

The variability among living organisms from all sources including, terrestrial and marine, and other aquatic systems, and the ecological complexes of which they are part; this includes diversity at genetic, species, and ecosystem levels.^{15 16}

The definition is almost identical to the definition in the Convention for Biological Diversity (CBD) of 1992. The various types of different ecosystems include marine and terrestrial, and in which human societies live and on which they depend, such as coastal areas, forests, wetlands, grasslands, mountains and deserts. As we know, South Africa and the Western Cape have been blessed with extraordinary biodiversity.

Both the Biodiversity Act and the Draft White Paper, and indeed the CBD, emphasise the conservation of biodiversity as a main objective but also aim for sustainable use of “biological resources”, and fair use of and equitable access to the resources. The Draft White Paper does, however, recognise a “more natural, wild, expanded biodiversity estate” as the basis.

In short, rich biodiversity is a prerequisite for all life: it provides ecosystem services for humans, and strengthens nature’s resilience by ensuring that nature has options. And it has intrinsic value. The concept of **rewilding** recognises that restoring wild ecosystems and allowing natural processes to occur might be the most effective form of biodiversity conservation.

What does the data on biodiversity show?

It is an incontrovertible fact that **biodiversity is in accelerating decline globally**¹⁷. The UN’s Global Biodiversity Outlook 5¹⁸ summarises the situation as follows: almost all indicators “relating to the drivers of biodiversity loss, and to the current state of biodiversity itself, mostly show significantly worsening trends.” None of the Aichi Biodiversity Targets for 2020 set at the Convention on Biological Diversity’s 2010 conference was met. Even the

¹⁵ Republic of South Africa. 2022. Draft White Paper on the Conservation and Sustainable Use of South Africa’s Biodiversity. *Government Gazette*, No. 46687, 8 July.

¹⁶ Republic of South Africa. 2004. National Environmental Management: Biodiversity Act. *Government Gazette*, No. 26436, 7 June.

¹⁷ Secretariat for the Convention for Biological Diversity. 2018. Biodiversity at the Heart of Sustainable Development. 27 April. Available:

https://sustainabledevelopment.un.org/content/documents/18277CBD_input_to_2018_HLPE.pdf.

¹⁸ Secretariat for the Convention for Biological Diversity. 2020. Global Biodiversity Outlook 5. Available: <https://www.cbd.int/gbo5>.

World Economic Forum recognises biodiversity loss as one of the top threats to the world economy.¹⁹

Are SD and Biodiversity related?

In its report entitled “Biodiversity at the Heart of Sustainable Development”, the Secretariat for the CBD opines that the alarming loss of biodiversity “is arguably because its value as underpinning human well-being is not fully understood and adequately taken into account in public and private decision-making”²⁰. From a “strong” SD perspective, biodiversity is the focus with natural ecosystems being fundamental to the survival of all life and to human activities. Even in a “weak” SD understanding biodiversity resources are essential resources for a thriving humanity. The two concepts are thus inextricably linked, although it seems clear that SD’s implementation has simply led to further destruction of biodiversity.

Conclusions

On the one hand SD is a contested, variously understood concept, while on the other, biodiversity might be a well-defined but poorly understood or esoteric, scientific concept. My advice to REC is to steer clear of these “suitcase terms” in its constitution. **Rather define explicitly and in detail what the REC aims are, so that the choices and decisions to be made by future committees are unambiguous and minimise the need to interpret either concept.** In fact, the current constitution’s wording does an admirable job:

The mission of the Rooiels Conservancy is to win the hearts and minds of property owners in the area to help ensure the area’s landscapes, marine environment and indigenous flora and fauna are conserved for generations to come.

From this I understand that REC members/founders are more concerned with conserving the area’s natural heritage than supporting and enabling “development”, whatever that term might mean. The wording could, however, be improved, for example:

The mission of the Rooiels Conservancy is to inform, educate and obtain the participation of property owners and residents in, and visitors to, the area to help ensure that the area’s natural landscapes, marine environment and indigenous flora and fauna and their diversity are conserved and protected for generations to come, and that ecological processes’ integrity is maintained. Rather than simply preventing further loss or damage to our natural heritage, a goal will be to enhance and expand natural processes and wilderness.

There is a caution, however: Recognise that Rooiels is home to a privileged, relatively wealthy community, relatively isolated from poor people. It needs to accept that marginalised

¹⁹ Bradshaw, CJA, Erlich, PR, et al. 2021. Underestimating the Challenges of Avoiding a Ghastly Future. *Frontiers in Conservation Science*. 13 January. Available: <https://doi.org/10.3389/fcosc.2020.615419>.

²⁰ Secretariat for the Convention for Biological Diversity. 2018.

people will have different views about biodiversity and nature conservation and how and to whom the benefits accrue.

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