

The Construction of Sustainable Alternative Processes From The Emerging Paradigm

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Abstract

This essay explores the current state of alternatives to achieve sustainable processes. To this end, the concept of sustainability is reflected, in terms of the conservation of energy and natural resources, the reuse of these resources, and the management of the life cycle, of different processes, both in terms of environmental goods and services, as well as the socio-political conditions and development models in which they occur. In this way, we intend only to make an introduction to the current debate on sustainability and relate it to the processes to which this criterion can be applied; not only with what is related to the environmental or ecological.

Keywords: *emerging paradigm, sustainability, sustainable processes, sustainable development.*

Date of Submission: 15-09-2022

Date of acceptance: 30-09-2022

I. INTRODUCTION

This essay explores the current state of alternatives to achieve sustainable processes. To this end, the concept of sustainability is reflected, in terms of the conservation of energy and natural resources, the reuse of these resources, and the management of the life cycle, of different processes, both in terms of environmental goods and services, as well as the socio-political conditions and development models in which they occur.

The concept of sustainability in any type of process is related to the so-called environmental crisis, which many authors attribute to the social and environmental problems generated by a predatory development model of nature and cultures; in itself, this crisis is of anthropic origin; and as such is related to economic development and the development of human and social capacities; however, respect for the environment has not been parallel, causing the environmental crisis. Certainly, this essay does not deal with all the issues involved in sustainability applied to sustainable processes but emphasizes some of them seeking to offer basic information about the different ideas at stake. In this way, we intend only to make an introduction to the current debate on sustainability and relate it to the processes to which this criterion can be applied; not only with what is related to the environmental or ecological, although according to Boff [1] ecology supposes a new paradigm, that is, "*a way of organizing the set of relations of human beings with each other, with nature and with its meaning in this universe*", and this discipline can be a "*new alliance with creation, the covenant of veneration and fraternity*".

II. KEY CONCEPTS

2.1 What is Sustainability?

"Sustainability" has diverse conceptualizations and multiple dimensions that have been approached from different angles in recent decades. As a consequence, the term sustainability can mean very different ideas and concepts because it can be applied at different levels or to particular processes. The challenge lies not in the definition of the concept, but in the identification of the characteristics of the management that promote it. The notion of sustainability was originally developed in a bio-physical framework, as a response to the awareness of the scarcity of natural resources (considered as isolated physical stocks). Currently, this notion is being applied in a context of greater scope, which has often produced confusion in its use, since the policy implications that derive from it, as originally used (stocks), do not give the right signals when applied in other areas, such as particular processes in complexity.

The concept has been defined in a very broad way and can be interpreted in different ways, either at the "macro" level (global biophysical systems, development styles, social processes, regional economies, etc.) or at the "micro" level (more delimited unit of analysis, ecosystems, agroecosystems, productive systems, among others). But regardless of the level or scope, the system must remain stable over time. Or in other words, the input variables of any system or process must be equal to or greater than the output variables, regardless of the interactions of the state variables, internal to the system (Figure 1: Bertalanffy, von [2], Gallopín [3]).

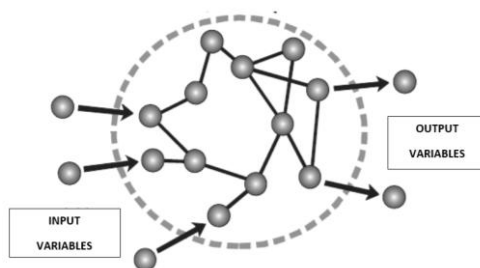


Figure 1. Open system: the state variables are those internal to the system.
Source: Bertalanffy, von [2]; Gallopín [3].

2.2 What is the relationship between sustainability and sustainable development?

The concepts of sustainability and sustainable development should be examined from a systemic perspective; this can range from an anthropocentric approach to an extremely ecocentric one and they are related to the criteria of sustainability very strong, strong, weak, and very weak [3]; which in turn coincide with the principles of sustainability formulated by the economist Herman Daly[4], who states that they allow progress towards sustainable development. These principles are a) For a source of renewable resources, not to consume it at a rate higher than that of its natural renewal; b) For a non-renewable source, do not consume it without considering developing a new "source" that, once the first one has been exhausted, allows us to continue enjoying the same benefits (creating substitutes); and c) For a waste, generate no more than that which the corresponding sink can absorb and neutralize naturally.

It has been more than two decades since Daly [4] visualized that wealth and economic growth are not likely to produce an SD because of how much industrial countries consume and discard. This implies that the SD theory does not assume that the economic rationalization of the market necessarily solves environmental problems. Therefore, the defenders of the SD advocate the need for ecological rationalization, with environmental impact assessments, mitigation of environmental problems even if it is expensive, and defense of the precautionary principle in favor of natural resources (*induvio pro natura*).

The use of the term *sustainable development* was formalized in the Brundtland Report [5]; in that Report, called *Our Common Future*, the concept of *sustainable development* is defined as one that "meets the needs of the present without compromising the needs of future generations" [5], which means that it must meet present needs without jeopardizing the possibility for future generations to meet their own needs, hence their normative nature. Some authors argue that the SD is a hybrid concept because, on the one hand, the term development comes from neoclassical economics and is related to the ideas of progress, modernization linked to globalization, and technological expansion, in short, it can be interpreted as an acceptance that neoliberalism is the only way to develop less developed societies and this idea is spread throughout the world through globalization. This could be aggravated if we relate the concept of sustainability with teaching and remember that Michel Foucault postulates that the emergence of all knowledge is always linked to a power structure, "the problem is not to change the 'consciousness' of the people or what they have in their heads, but the political, economic, and institutional regime of the production of truth" [6]. We come to this reasoning because if neoliberalism is globalizing the concept of SD (from developed to less-developed nations), there is a "power structure" from the first to the last, exercised through various mechanisms such as financial, technological, and free trade agreements, which extend to the educational plane.

Another approach, the concept of sustainability of Gadotti [7], indicates that "*development could be an integral process that included cultural, ethical, political, social and environmental dimensions, and economic*". This makes us think that there are two logics, one economic (the neoliberal) and the other holistic (that of the new paradigm), not only different but contradictory, the first exclusive and the second inclusive; and that both are combined in the concept of SD. From this perspective, the protection and preservation of the environment are fundamental; given that the most vulnerable people on the planet rely heavily on land for a living, meaning fresh air, clean water, healthy ecosystems, and accessible and clean economic energy are the essential components needed to create a better life. A concept of our days expressed by Muñoz [8] states that the sustainability model and the SD model are two different models because the first is based on systems thinking,

optimization, inclusion, and internalization of costs, and the second one is based on non-systematic thinking, maximization, the exclusion, and externalization of costs.

For Gadotti [7], other expressions must be considered, such as *human development* (HD) or *sustainable human development* (SHD), which place the human being at the center of development; but it is not the center (anthropic vision), and the central axes of these concepts are *equity* and *participation* since they conceive of the developed society as an equitable society that is only possible by the participation of all people. HD has been used by the United Nations as an expression or "indicator of the quality of life based on indices of health, longevity, psychological maturity, education, clean environment, community spirit, and creative leisure, which are also features of a *sustainable society*." The discourse on SHD is presented as an alternative to economic and social models based on the control, overexploitation, and degradation of nature; and is also taken as a way out of the environmental crisis [9, 10]. In short, SHD is perceived as a possibility to build new forms of appropriation of nature, based on complexity, ecological sustainability, cultural diversity, transdisciplinarity, social equity, and participation, which are democratic, sustainable, and lasting over time. But how to make human solidarity, economic efficiency, environmental sustainability, political democracy, and social justice that SHD demands compatible with the principles of profit and more profit, competitiveness, consumerism and social exclusion, valorization above all, intensive and predatory use of resources, which govern the functioning of neoliberalism? [10, 11].

2.3 Gender, environment, and sustainable development

The line of thought "gender, environment, and sustainable development" is intertwined with the approach known as "gender in development" (GID) that was consolidated in the nineties. It argues that discrimination affecting women is mainly expressed in our societies through (a) the gender division of labor and the consequent almost exclusive assignment of responsibility for child-rearing and domestic work to women; (b) unequal access of men and women to resources productive and their benefits; and (c) limitations on participation in decision-making processes and access to public authority in its various expressions. From this current, the construction of gender is considered as one of the intermediary agents of the relations between women and men with the environment [12]. From the concept of gender, there is a profound change in the delimitation of the object, we no longer speak only of women but of the social relations that they establish and the system of power in which they are inserted. The postulates of "gender, environment, and sustainable development" make it possible to identify the differences between women, emphasizing the social, historical, and cultural character of the processes of subordination and negotiation in which they are inserted. This has the consequence that not all women experience environmental degradation in the same way, nor do environmental problems impact everyone equally and lead to the so-called "feminization of poverty".

III. FINAL CONSIDERATIONS

3.1 Inequality as a barrier to sustainable processes

The concepts of SD and SHD are crossed by strong ideological loads and, therefore, present various possibilities for interpretation. In the first approach, the dynamics that relate these concepts, on the one hand, emphasize the need to stop the waste of the countries of the North, and on the other, to end the poverty of the countries of the South, and thus, stop the destruction of the biosphere, generating at the same time the conditions to achieve a fully human life (Mark Hathaway). However, the intrinsic contradiction contained in the SD present in the first reports of the United Nations Development Programme (UNDP) [13], which is maintained over time, is that to achieve this it is necessary to continue promoting economic growth in both the North and the South.

Boff and Hathaway[14] clearly exposed these contradictions; also exalted in the Oxfam report, called "*An economy at the service of the 1%*" [15], which highlights that, since 2010, the wealth of the poorest half of the population has been reduced by a trillion dollars. This has happened despite the fact that the world's population has grown by about 400 million people during the same period. Meanwhile, the wealth of the 62 richest people on the planet has increased by more than \$500 billion to \$1.76 trillion. Oxfam reports also show how inequality disproportionately affects women. of the 62 richest people in the world, 53 are men and only 9 are women [16, 17].

In the corporate world, the SD is assumed as a process in which large corporations hope to continue their capitalist productivism, making some mitigation corrections; even this discourse has been "bought" by many academics who think that privatizing and valuing the elements of nature is the best way to internalize, in terms of costs, the externalities or negative impacts generated by the use of resources on the environment. For this reason, the term SD has been criticized and questioned [7]. However, the SD (as most people visualize it) is still claimed by international cooperation bodies; and also, by some academics, non-governmental organizations, and, of course, neoliberal politicians.

In contrast, Boff proposes a shift toward a new ecological paradigm (which summarizes his thinking); which the author also calls the cosmology of the Transformation in contrast to the Cosmology of Domination in force, as a proposal of universal ethics, materialized mainly, with the principles of the Earth Charter [18]. For Leonardo Boff [1] environmental problems cannot be solved separately from social problems, ecological justice, and social justice cannot exist without each other; otherwise, those most threatened by the destruction of the planet are the poor [7].

3.2 Build alternatives from down-up and territorially

From the perspective of the hegemonic current of the economy (old paradigm), it is understood that the differences in development between regions and countries have to do with certain comparative advantages they have (especially in natural resources, water, soil, etc.). Boff and Hathaway, in a lecture given at La Salle University, Costa Rica (unpublished), pointed out that the concept of development is broader and includes some indicators of people's quality of life, such as education, health, etc. For them, development is based on the use of human capital in the sustainable use of natural resources and respect for the environment, based on love between human beings and towards the environment; and point out that, in any case, it is necessary to highlight (according to our interpretation): a) The incidences that development has on the environment; (b) The impact of economic and social policies on development in the pursuit of maximizing that development; (c) The integration of these variables to achieve a just and sustainable world amid a very strong crisis (in Hathaway's word "*another world is possible*"); (d) Equality between groups, avoiding exclusion; e) Build local and territorial economies, as a way of subsisting in the face of capitalist globalization.

All this means building alternatives from below and territorially, to seek a better distribution of income and wealth generated. This is an *alternative eco-development* approach, which seeks deeper social transformations assuming a new ecological ethic, in which the care of nature must assume the challenge of respect for ecosystems and biodiversity, including also human diversity. To achieve this alternative eco-development, cultural models must be transformed, as well as the use of technologies more in line with ecosystems; it must contribute to the formation of new consumption models and the search for new energy sources. Social relations must be transformed to distribute power and the fruits of development [14]. From the perspective of eco-development, for these two authors, and many other authors the possibility of achieving full respect and environmental balance within the framework of current capitalist relations is remote; so the ways to promote it would depend on transformations not only economically and culturally, but also at the legal and political level; with emphasis on territoriality and local community development.

In the same line of argument, the advantages of territoriality (expressed as ecoregions, communities, local groups) can be: a) In each ecoregion the effort is directed to the use of its specific resources to meet the basic needs of the population in terms of food, housing, health and education; (b) Since the human being is a resource of the ecosystem, eco-development must contribute first and foremost to its realization (employment, security, quality of human relations, respect for the diversity of cultures); (c) The negative impacts of human activities on the environment are reduced through procedures and forms of production organization that make it possible to take advantage of all complementary elements and use waste for productive purposes; (d) In tropical and subtropical regions in particular, eco-development is carried out on the natural capacity of the region for photosynthesis of all its forms, and by reducing the consumption of energy from fossil fuels (alternative energies); and e) Eco-development implies a particular technological style, where eco-techniques exist and can be put in place for the production of food, housing, energy, in a "soft" industrialization based on renewable resources.

On this path of building a sustainable future, one of the important tasks that must continue to be carried out is to insist on unveiling and denouncing everything behind apparently harmless conceptions and actions that even seem admirable, such as *sustainable human development* (in the conceptions of multinational organizations) and its direct implications in the current forms of reproduction of capitalism. This means, according to the *Encyclica Laudato Si*, that "***every claim to care for and improve the world implies profound changes in lifestyles, production and consumption models, and the consolidated structures of power that govern society today.***"

REFERENCES

- [1]. Boff, L. (2002). El cuidado esencial. Ética de la humano, compasión por la tierra. Madrid: Editorial Trotta.
- [2]. Bertalanffy, Ludwig von. (1950). The Theory of Open Systems in Physics and Biology. Science, Vol. 111, Issue 2872. pp. 23-29.
- [3]. Gallopín, G.C. (2003). Sostenibilidad y desarrollo sostenible: un enfoque sistémico. Santiago de Chile: CEPAL.
- [4]. Daly, H.E. (1991). Selected Growth Fallacies. Chapter 5. In Steady-State Economics by Herman E. Daly, Washington, D.C.: Island Press.
- [5]. Brundtland, G.H. (1987) Our Common Future: Report of the World Commission on Environment and Development. Geneva, UN-Document A/42/427.<http://www.un-documents.net/ocf-ov.htm>
- [6]. Foucault, M. (1994). Un diálogo sobre el poder y otras conversaciones. Madrid: Alianza Editorial.
- [7]. Gadotti, M. (2002). Pedagogía de la tierra. México: Siglo Veintiuno Editores.

- [8]. Muñoz, L. (2022). Sustainability thought 169: Does define sustainability as sustainable development requires alternative academic facts? If yes, what is the nature of these alternative academic facts? *International Journal of Latest Research in Humanities and Social Science*, V. 05, I. 07, p. 37-43.
- [9]. Leff, E. (2002). *Saber ambiental: sustentabilidad, racionalidad, complejidad, poder*. Siglo xxi.
- [10]. Leff, E. (2009). Universidad, saber ambiental y sustentabilidad. *Bogotá: Editorial Pontificia Universidad Javeriana*.
- [11]. García, D. y G. Priotto (2008). La sustentabilidad como discurso ideológico. Programa de Estrategia Nacional de Educación Ambiental, Buenos Aires: Secretaría de Ambiente y Desarrollo Sustentable.
- [12]. Rico, María N. (1998). Género, medio ambiente y sustentabilidad del desarrollo. Santiago de Chile: CEPAL.
- [13]. Browne, S. (2011). *United Nations Development Programme and System (UNDP)*. London: Routledge.
- [14]. Hathaway, M., Boff, L. (2009). *The Tao of Liberation: Exploring the Ecology of Transformation*. New York: Maryknoll.
- [15]. Hardoon, D. (2017). *An Economy for the 99%: It's time to build a human economy that benefits everyone, not just the privileged few*. Oxfam.
- [16]. OXFAM (2016). An Economy for the 1 %: How privilege and power inequality in the economy drive extreme how this can be stopped. 210 OXFAM Briefing Paper, 18 January 2016.
- [17]. OXFAM (2022). Inequality Kills: The unparalleled action needed to combat unprecedented inequality in the wake of COVID-19. OXFAM Briefing Paper, January 2022.
- [18]. Earth Council. (2000). The Earth Charter. Earth Charter in Action - Powering a global movement
- [19]. Laudato Si' (2015). Encyclical Letter Laudato Si': Of The Holy Father Francis on care for our Common Home. https://www.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_encyclica-laudato-si_en.pdf