The trajectory of sustainability: From environmental to social, from social to economic

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Introduction

THE NOTION of sustainability has two origins. The first lies in biology, more particularly in ecology. It refers to the ability of ecosystems to recover and reproduce (resilience) in the face of anthropogenic (overuse of natural resources, deforestation, fires, etc.) or natural (earthquakes, tsunamis, fires, etc.) disturbances. The second comes from economics, as an adjective of development, a result of the growing awareness throughout the twentieth century that the production and consumption pattern that has been spreading globally, especially in the last quarter of the century, cannot continue. Hence the idea of sustainability linked to the perception of finiteness of natural resources and their gradual and dangerous depletion.

Heated discussions held in the Stockholm (1972) and Rio (1992) meetings gave rise to the notion that development implies, besides an environmental curtailment, a social dimension containing the idea that poverty causes environmental disturbances and therefore sustainability should include social equity and quality of life for the present and future generations. Solidarity with future generations introduces the ethical dimension in a cross-cutting manner.

The Brundtland Report (1987) stirred a huge debate in the academia about the meaning of sustainable development. Pearce et al. (1989) provided a reasonable number of definitions. Today, there is a true sea of literature addressing the topic in the most diverse ways (Wackermann, 2008).

In another text (Nascimento & Costa, 2010) as well as in Nobre & Amazonas (2002), we advocate that Sustainable Development (SD) has become a playing field in the sense used by Bourdieu, with multiple discourses that sometimes contradict and others complement each other. The realm of polysemy is the highest expression of this force field, which now conditions positions and actions of governments, entrepreneurs, politicians, social movements and multilateral organizations.

In the academia the debate and interpretations could not fail to be present. As an example, Redclift (1987) considers Sustainable Development (SD) a powerful idea, while Richardson (1997) calls it a fraud, as it tries to conceal the contradiction between the finiteness of natural resources and the developmental character of industrial society. O'Riordan (1993) in turn, supported by Dryzeh (1997), is of the opinion that although SD carries the ambiguity of concepts such as justice and democracy, it is still relevant. Baudin (2009) sees it as a new ideology.

In Brazil, Machado (2005) argues that SD is a discourse, as proposed by Foucault, while Nobre & Amazonas (2002) sustain that it is a political-normative concept, a notion that was already present in the Brundtland Report. Veiga (2010), however, provides an interesting defense - that SD is above all a new value. In its assimilation by society lies the possibility of adopting measures that will effectively change the course of development, taking it from the prison of economic material growth to the freedom of human development, while expanding opportunities (Sen, 2000).

The questions that guided the construction of this paper were: What is sustainability, understood as an adjective of development? What is its trajectory, nature and implications for today's society? Where is the core of its conception?

Thus, the text is divided into four sections. The first addresses briefly the origins and context of the concept of sustainability, which was subsequently transformed into Sustainable Development (SD) through debates in the international arena. The second examines the issue of the dimensions of sustainable development showing the boundaries of a three-prone approach - environmental, economic and social. The third provides clues about the relevance of sustainability today. The fourth section analyses three responses currently under development to the environmental crisis. In the conclusion the author asks questions about changes in the trajectory of the concept of sustainable development.

Origins and context

The idea of sustainability gains ground and political expression when the term becomes an adjective of development, the result of the perception of a global environmental crisis. This perception has come a long way to the current structure, whose latest origins data back to the 1950s, when humanity realized, for the first time ever, the existence of a global environmental risk: nuclear pollution. Its signs warned human beings that we are all on the same boat, and that environmental problems are not restricted to a few areas. "Radioactive rain falling thousands of miles from the test sites sparked a heated debate within the scientific community" (Machado, 2005). Between 1945 and 1962, 423 atomic detonations were set off by countries with atomic power.

Another moment in this trajectory of realization of the environmental crisis revolved around the use of chemical pesticides and insecticides, denounced by biologist Rachel Carson. Her book *Silent Spring* sold over half a million

copies, and in 1963 it had already been translated in 15 countries (McCormick, 1992).[1]

These events got to the media and governments, but the environmental movement was their biggest beneficiary. According to McCormick (1992), at that time the five largest conservation organizations in the United States had a membership increase of about 17 percent a year.

The acid rain in the Scandinavian countries led Sweden in 1968 to propose to the United Nations Economic and Social Council (ECOSOC) a global conference that could lead to an international agreement to reduce the emissions of greenhouse gases that cause acid rain. The result was the approval of the Stockholm Conference in 1972. During the preparations for the conference – which lasted more than three years - developed countries and underdeveloped nations (the Third World, as they were referred to at the time) met face to face. The first were concerned about the increasing environmental degradation that threatened their quality of life, while the latter sought to avoid restrictions on the export of their primary products and hindrances to their development. This opposition was even tenser if we imagine that Third World countries attributed their poor economic growth to environmental problems. So to them, the solution to environmental problems involved eradicating poverty.

While developed countries defined the defense of the environment as the central point of the Conference, the others focused on poverty alleviation. This division crossed not only countries, but also political and social actors, leading to a confrontation between environmentalists and developmentalists.

Given the complexity of the dispute, the United Nations (UN) transferred the debate to a technical committee that produced *Only one Earth* (Ward & Dubos, 1973). According to the document, the environmental problem stemmed from economic externalities that characterize overdevelopment (aggressive technology and excessive consumption) on the one hand, and the lack thereof (population growth and low GDP per capita) on the other. Put this way, the environmental issue was no longer restricted to the natural environment as began to penetrate the social scene. Thanks to this dispute, the binomial development (economy) and environment (biology) was replaced by a triad with the introduction of the social dimension.

The Stockholm meeting took place amidst the impact of the report produced by the Club of Rome[2] - *Limits to Growth* (Meadows et al., 1972), which proposed the deceleration of industrial development in developed countries and of population growth in underdeveloped countries. It also included aiding the first for the latter to develop.

Two other works and an event held at that same time impacted on the field of sustainability. The first, in 1971, had no influence on the Stockholm meeting, but did have an effect on the subsequent reflection on the economy. It is the work by Nicholas Georgescu-Roegen (1999), in which he addresses

the economy as a subsystem of ecology that interacts with nature in its transformation process, based on the second law of thermodynamics (entropy). The second, by Arne Naess (1973), which was published in the Inquiry journal and soon became the banner of the most extreme environmentalists, distinguished between shallow ecology (whose concern is pollution in developed countries) and deep ecology (whose focus are the ecological problems existing in the structures of societies around the world). The event, in turn, was the oil crisis, which would impel developed countries to reduce the emission of greenhouse gases, currently known as decarbonization of the economy.

Governments began to work to establish agencies to deal with the environmental issue, since one of the findings during the preparation for the Stockholm meeting was the lack of available and reliable data on this subject. As an example, in 1970 the United States created the Environmental Protection Agency (EPA). Brazil established the Special Secretariat for the Environment (SEMA) in 1973.

An evaluation of the results of the Stockholm meeting by the UN ten years later showed that the efforts undertaken had fallen far short of what was necessary (Le Prestre, 2000). The result was the establishment of the World Commission on Environment and Development (WCED), chaired by former Norwegian Prime Minister Gro Harlem Brundtland, whose 1987 report (*Our Common Future*) had been tasked with proposing a global agenda for change. It was the greatest effort known to that date to reconcile environmental conservation with economic development, whose port of arrival was termed Sustainable Development. Its definition has become classical and the object of a heated global debate (Lenzi, 2006): "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The strength and weakness of this definition lie precisely in this vague formula, as it fails to explain what the current human needs and those of future generations would be. The notion of intergenerationality is introduced in the concept of sustainability, linking it to the notion of social justice (reduction of social inequalities and right of access to the goods necessary for a dignified life) and to ethical values (commitment to future generations).

Our Common Future opposes the effects of liberalism - which at that time was responsible for the increase in social inequalities between countries - and establishes the social dimension as an integral part of the environmental issue: "It is therefore futile to attempt to deal with environmental problems without a broader perspective that encompasses the factors underlying world poverty and the inequalities within and among nations "(Brundtland, 1987, p.4).

In 1989 the UN General Assembly decided to organize the UN Conference on Environment and Development (UNCED) to take place in 1992, known as Rio-92. The merit of its results - sometimes praised, sometimes mocked – is still being debated (Bursztyn & Bursztyn, 2006, p.62). The most

visible effects were the implementation of the Conventions on Biodiversity and Climate Change - which resulted in the Kyoto Protocol - as well as the Rio Declaration and the Agenda 21.

The Rio Declaration followed the same line of the decisions made at the Stockholm meeting, by linking environment and development through good management of natural resources without compromising the economic model. The document therefore was in line with the economic expansion that the world was beginning to experience and contradicted what was being advertised by the most critical literature of that time, such as the preparatory report for the meeting of the Latin America and Caribbean Commission on Development and Environment (CDMAALC, 1991, p.2):

> The development models that prevail in the world and that have generated important gains for human development over several decades show irrefutable signs of a crisis. [...] The configuration of environmental problems threatens the ability to maintain this human development process in the medium and long term.

The contradictions between developed countries and other countries became even clearer when the United States refused to sign the Kyoto Protocol, even after the Intergovernmental Panel for Climate Change (IPCC) had issued a poignant warning about the pressing risks of global warming and the contribution of anthropogenic action to this process. The world was touched; the U.S. government, not so much.

Amidst the media debate, a consensus was established - sustainable development consists essentially of three dimensions, although many authors, such as Ignacy Sachs (2007), consider the relevance of various other dimensions.

The dimensions of sustainable development

It makes sense to wonder whether the three dimensions (economic, social and environmental) of sustainability are sufficient, and what they mean.

The first dimension of sustainable development often mentioned is the environmental dimension. It assumes that the production and consumption model is compatible with the material base on which the economy as a subsystem of the natural environment is founded. It is therefore about production and consumption, to ensure that the ecosystems can maintain their self-healing or resilience ability.

The second dimension, the economic dimension, implies an increase in production and consumption efficiency with increased savings of natural resources, especially permissive resources like fossil sources of energy, and sensitive and poorly distributed resources such as water and minerals. This is what some refer to as eco-efficiency, which implies continuous technological innovation that will lead us out of the fossil energy cycle (coal, oil and gas) and contribute to the dematerialization of the economy.

The third and last dimension is the social dimension. In a sustainable so-

ciety all citizens should have the minimum required for a dignified life and nobody uses goods, natural and energy resources in a way that would be harmful to others. This means eradicating poverty, setting the acceptable standard of inequality and defining minimum and maximum limits of access to material goods. In short, establishing the old and desirable social justice.

It should be noted that there are other ways to define these dimensions. We have used only those that seem to be more recurrent and simpler.

The main problem with this three-dimensional definition is not in the different conceptualizations found in the specialized literature about each of them, but in the fact that choosing them as essential eliminates, for example, the power dimension. As if changing production and consumption standards was something alien to political structures and decisions.

The consequence of neglecting the political dimension is a depoliticization of SD, as if contradictions and conflicts of interest no longer existed. As if politics was no longer necessary in the process of change. As if violent forms of exploitation were no longer important and social equity was constructed through simple dialogue between governmental and multilateral organizations, with the assistance of civil society and the active participation of the business community.

This is due in part to the fact that the issue of sustainability puts in the center of the debate interests of a general nature rather than those that are specific to groups or social classes. This sidesteps the asymmetry of power within society. This invisibility is exacerbated, *inter alia*, by the fact that the environmental crisis is depicted as being the life or death of humanity. This extreme, distant and abstract way of addressing the environmental problem causes the asymmetry of powers to morph into a secondary issue. Now, the problem arising from the environmental crisis is not that the planet and/or life are threatened with extinction in the short or medium term. We can state categorically that we are not capable of destroying the planet or life therein. What is at stake, first of all, is whether the next generations will be able to enjoy a quality of life at least close to what we currently envision for all and that many already have.

There is, however, another reason that should be pointed out for understanding the depoliticized conception of sustainability: the apparent shift in the focus of social change.

From the eighteenth to the twentieth century the focus of change lay in politics, social struggles and political revolutions. The first shift occurred in the mid-twenty-first century: from the political to the social sphere. Thus, in the second half of the twentieth century, multiple forums sparked social change: cultural movements, such as the women's movement; political movements, such as the fall of the Berlin Wall and the dissolution of the Soviet Union; and cutting edge technological innovations which, when disseminated produced a globalized world, a globally integrated economy, a popular international culture, as

well as new global political and social actors. The space of the nation-state is reduced, the cultural and symbolic economy grows, new science and inventions emerge.

The problem is not whether the impacts of technological change are overestimated or not. We will never be able to overestimate what technology is bringing us in terms of change - the problem lies elsewhere! In an attempt to make the political sphere invisible by focusing social changes in the world of technology, we forget that changes necessarily go through economic and political spheres. Globalization was produced the way we know it because the victory of neoliberalism in Britain and the United States in the 1970s ensured favorable conditions for the scientific-technological revolution of the 1980s. The worldwide supremacy of the market ideology with its historical specificities laid fertile ground for the adoption of new technologies.

Businesses will not switch decisively to resource-saving and less carbon--producing production processes. New energy sources will become accessible only by accelerating innovations. Wealth distribution and equal opportunities will not be built without political disputes and pressure on governments.

Another neglected aspect in the three-dimensional definition of SD is culture. Now, there can be no change in the consumption pattern and in lifestyle unless there is a change in values and behaviors; the *having more* value is replaced by the *having better* value; the notion of happiness shifts from *consuming* to *enjoying*; the immediacy of fashion is transferred to the durability of the product; there is pressure for the provision and valuing, for example, of public transport and, if possible, the *best* transport rather than just transport. Sustainable development apparently implies an intellectual and moral reform, to use the old expression of Gramsci (1975), in order to welcome and encourage the adoption of new technologies and new ways of living.

With all that we mean to suggest that sustainability, in its essence, should not have just "three leaves", but five, where the cross-cutting element is the ethics of solidarity to the excluded of today, so that there will be no excluded tomorrow.

Sustainability: Why is it relevant to us?

But after all, why is sustainability important to the peoples? Why do we believe that the solution to the environmental crisis and the possibility of creating a more just world lies with sustainable development?

The perception - widespread but far from proven - that we are an endangered species brings unparalleled relevance to the idea of sustainable development. Somehow, with the fall of the Soviet Union the worst fear of society in the mid twentieth century of a destructive atomic war has waned, giving place to the fear of self-destruction due to unbridled economic growth, which destroys nature and depletes natural resources.

It is clear from the works of Darwin in the second half of the nineteenth century, that animal species go through a cycle of birth, development and death. They come and go, some disappear and others emerge. Nothing leads us to think that the human species follows a path different from that of its long-gone ancestors (hominids).

Until the mid-twentieth century, humanity faced basically two great threats of extinction - one external (being hit by a large meteorite, as apparently occurred 65 million years ago when the dinosaurs went extinct) and another internal (the outbreak of an unknown and uncontrollable epidemic). In the middle of last century, another threat was added, this one coming from humans themselves: the atomic bomb. Its destructive power became evident in the bombings of Hiroshima and Nagasaki.

The idea that the current production and consumption pattern is leading us to a disaster is becoming increasingly accepted. "Evidence that the economy is in conflict with the earth's natural systems can be seen in the daily news reports of collapsing fisheries, shrinking forests, eroding soils … disappearing species." (Brown, 2003, p.14).

Although the worsening of the environmental crisis points to a clear deterioration of living conditions on our planet, it is possible, should the most pessimistic global warming scenario prove true, that a new possibility of self--extinction will emerge by the end of this century.

Anyway, the persistence of the current production and consumption pattern degrades not only nature but also, and increasingly, the living conditions of humans.

Answers to the environmental crisis

Admittedly, the current living conditions would be endangered in the event global warming is confirmed. However, the quality of life of those who lack it today and of future generations is not threatened only by a possible global warming. The current production and consumption pattern brings with it threats that act independently of this event, because if the pace of economic growth of the past one hundred years prevails, we will have about 120 million people entering the consumer market each year. It will be two and a half billion in 2050. There is almost unanimity among scientists today that natural resources will not be sufficient to ensure a way of life similar to that of the world middle class to all new market entrants. However, they have as much right as those already in the consumer market.

What is at issue are the civilizational acquisitions we have created (Lovelock, 2006) and, in the worst-case scenario, humanity itself. Will we – or won't we – be able to prolong our existence as a species? Or, conversely, are we going to shorten it? After all, being human means having the ability to self-destruct. But our human condition also implies the ability to prolong our existence as a species, using the same ingenuity.

Put this way, the environmental crisis entails the clear challenge that sustainable development is only one of the possible answers, to which another three could be roughly added, with different probabilities.

The first answer is technology, which blames the ingenuity of man for the announced depletion of natural resources. The second lies in the extreme (but progressive) change in the existing production and consumption pattern expressed in the degrowth movement, among others. The third is the possibility of not being able to avoid the catastrophe that could gradually lead to the extinction of humanity. This would be the non-answer.

In addition to finding support in common sense, the first answer is anchored in the long tradition of economics, as it gives continuity, with some changes, to classical hegemonic approaches. Its principal mentor is probably the winner of the Nobel Prize in economics Robert Solow (2000).

Contrary to other economists, Solow takes the issue of the finiteness of natural resources seriously. However, unlike the critics of the dominant economy, he believes that man is able to come up with the necessary answers to this challenge without major social change, but with technological change. His thinking has some basic assumptions that lie beyond the interchangeability of production factors. Among them is the fact that the finiteness of natural resources is a problem only from the standpoint of their specificity, but not as a set. Let us take two simple examples. Finite is the amount of potable water available at a given time and place, but this finiteness ceases to exist when we think of this water as the set of existing water resources (70 percent of the Earth), which renews itself continuously. Desalination of sea water at low cost, as well as its transport, could make the water crisis a simple event in human history. The finiteness of fossil fuels and of renewable energy are of incomparable magnitudes. The first is reduced to decades and the latter to thousands of years. Nothing prevents other energy sources such as solar energy from being used for millions of years. Therefore, the limit of natural resources, which is real, is overcome by technological changes adopted as a result of market pressures and changes. After all, no source of energy (or another natural resource) is abandoned because resources have been exhausted, but rather because more feasible economic, social and technological alternatives have emerged.

At the moment, there is a conjunction of factors conducive to the gradual replacement of fossil energy. They have a common element, i.e. they are strictly located. Insofar as they are located outside the territory of most developed countries, it is imperative that these seek other sources of energy. However, as these countries are the largest holders of technology, they can invest increasingly in renewable energy sources, including cold fusion.

The second answer lies in the intellectual, social and political movement known as degrowth, or to use the French term, *décroissance* (Birth & Gomes, 2009), or even "post-development" (Billaudot, 2003).

As defined by one of its enthusiasts (Ariés, 2005), *décroissance* is a "bus expression" that accepts many meanings brought together by the rejection of the idea of development as a "nonsense religion". It embodies a rich set of social and cultural movements among which are: the Anti-utilitarian Movement in Social Sciences (MAUSS), the bioeconomists, the post-developmentalists, the conscientious objectors, and the antipub.

The criticism to SD is ferocious in that current. They consider it a pure nonsense, an ideology that simplifies reality, a mere "seductive attempt to save growth" (Latouche, 2007, p. 113). Morin (2007, p.75), who shows some sympathy for this idea even though he does not belong to the mentioned movement, also spares no criticism of SD by stating that "sustainable development *does nothing more than seasoning development through ecological consideration, but without questioning its foundations* "(emphasis added).

This movement has its main roots in the work of the economist Georgescu-Roegen. Based on the second law of thermodynamics (entropy), he draws attention to the fact that every productive process is the transformation of low entropy energy into high entropy energy, in other words, the transformation of available energy and matter into non-available energy and matter. Consequently, one day men will have to change the direction of their development by shrinking instead of growing. Economic growth will have to be converted into degrowth, if humanity wishes to survive.

His main follower, Herman Daly (1996), proposes a less drastic alternative: the pursuit of steady-state economy, in an analogy, according to Veiga (2008, p.130), with "the cosmological hypothesis that the total density of matter remains constant in the expanding universe." In Daly's view, we are moving towards a situation in which the central problem of development will be exchanging economic growth for the development of quality of life. The recent UN report, which preaches "prosperity without growth", is a palatable variation of this thread of thought. And studies showing the decoupling of economic growth from quality of life in developed countries reinforce the idea that it is possible to live better with less consumption and production (Veiga, 2010).

According to Latouche (1986), the most extreme advocate of degrowth, the current production and consumption pattern has no future because it will lead to self-extinction. The solution lies in the adoption of new values and new customs through the exchange of fashion and immediacy for sustainable and decreasing production. Ultimately, in the adoption of a new lifestyle.

The third answer lies in the possibility of a catastrophe. In fact, it is the result of a non-answer. The idea that the problems heralded by the environmental crisis can be solved through technological innovation cannot be right. It is true that several initiatives are being currently undertaken in the attempt to replace fossil energy sources. Germany and the countries in northern Europe are examples of that. However, greenhouse gas emission is already considerable,

and measures to reduce it are slow. It is a race against time. And the belief that humanity has always known how to overcome natural difficulties through new technologies is no guarantee that this will occur in the future.

Ideas such as creating bacteria that can absorb carbon dioxide or putting mirrors in the stratosphere to reflect sunlight and reduce solar heat are dangerous from the standpoint their consequences, and uncertain as to their viability. In turn, it is possible that climate change will accelerate, to the extent that global warming will release more of the CO_2 that is retained in nature (permafrost in Siberia and the Arctic, for example). A sudden reversal in climate can have catastrophic effects on human life, and this may already be occurring, with results to be felt in the next two or three decades.

Conclusion

The clash between the vision of developed nations, especially in Europe, and developing or underdeveloped countries that emerged in the 1970s, persists and should continue at the World Conference on Environment and Development in Rio de Janeiro. But now in a different context, since the environmental issue not only has widened but also gained new connotations since the 2007 IPCC report.

The differences lie, *inter alia*, in two points: a) the environmental crisis has gained more serious contours as a result of the perception of the anthropogenic responsibility for global warming and the dynamics of the rise of a more substantial human contingent in the consumer market; b) the proposals of sustainable development, especially as regards decarbonization and dematerialization of the economy, now under the guise of green economy, have gained strength.

The location of fossil sources outside their territories forces some developed countries to invest in new energy sources. The recent nuclear accident in Japan has driven this movement even further. These changes, finally, are becoming increasingly associated with technological innovations, opening the possibility of a new long-lasting wave of innovation. Thus, the economy is becoming increasingly convinced of the need to save the environment in developed countries and is gaining greater relevance in developing countries.

In turn, the economic dynamics of developing countries, except for the share of their populations that are below the poverty line, coupled with a more pessimistic perception of the environmental crisis, shifts the focus of the fight against poverty.

The issue is finding out whether there will be some movement towards shifting the core of sustainable development from social to environmental. The merger of the axis of fight against poverty with the green economy at Rio+20 seems to indicate not only that, but also a new "marriage" between the economy and the environment.

These are all, however, weak movements that have not yet become strong trends. As we have said before (Birth & Andrade, 2011), the twenty-first century was born under three signs: contradiction, uncertainty and hope. Contradiction between the evidence of a growing environmental crisis and the weakness of the measures adopted; uncertainty about the future of humanity as the economic and environmental crises deepen; and hope that social transformations will actually occur, changing - for the better - the civilization pattern to which we are prey, as put by Morin (2011).

Notes

1 Two other books in the same decade were less successful, but very striking: L. Reid's *The Sociology of Nature*, 1962, and P. Ehrlich's *The Population Bomb*, 1968. Another study had less immediate impact, but encouraged a great debate in academia and fostered a strong research movement: G. Hardin's *The Tragedy of the Commons*, speech delivered in December 1967.

2 The Club of Rome was established at a meeting of 30 people from ten different countries in 1968, on the initiative of businessman Aurelio Pecei (Machado, 2005, p.179).

References

ARIÉS, P. *Décroissance ou barbarie*. Lyon: Golias, 2005.

BAUDIN, M. *Le développment durable:* nouvelle idéologie du XXI siécle? Paris: Harmattan, 2009.

BILLAUDOT, B. Autre développement ou après développement? Un examen des termes du débat. In: MATAGNE, P. (Org.) *Le développement durable en question*. Paris: L'Harmattan, 2003.

BROWN, L. R. *Éco-économie, une autre Croissance est Possible, Écologique et durable*. Translated by Denis Trierweiler. Paris: Seuil, 2003.

BRUNDTLAND, G. H. (Org.) *Our Common Future*. Rio de Janeiro: FGV, 1987.

BURSZTYN, M. A. A.; BURSZTYN, M. Desenvolvimento sustentável: biografia de um conceito. In: NASCIMENTO, E. P. do; VIANNA, J. N. (Org.) *Economia, meio ambiente e comunicação*. Rio de Janeiro: Garamond, 2006.

Latin America and Caribbean Commission on Development and Environment (CDMAALC). *Our own Agenda*. S. l.: IDB/UNDP/UNEP, 991.

DALY, H. *Beyond growth. The economics of sustainable development*. Boston: Beacon Press, 1996.

DRYZEH, J. *The politics of the Earth*: environmental discourse. Oxford: Oxford University Press, 1997.

GEORGESCU-ROEGEN, N. *The Entropy Law and the economic process*. Boston: Harvard University Press, 1999.

GRAMSCI, A. *Quaderni del carcere*. Torino: Riuniti, 1975. 4v. LATOUCHE, S. *Faut-il refuser le développement,* Paris: PUF, 1986.

_____. *Petit Traité de la décroissance sereine*. Paris: Mille et un Nuits, 2007. LE PRES-

TRE, P. *Ecopolítica internacional*. São Paulo: Senac, 2000.

LENZI, C. L. *Sociologia ambiental:* risco e sustentabilidade na modernidade. São Paulo: Anpocs/Edusc, 2006.

LOVELOCK, J. *A vingança de Gaia*. Rio de Janeiro: Intrinsecas, 2006.

MACHADO, V. de F. *A produção do discurso do desenvolvimento sustentável:* de Estocolmo à Rio 92. Brasília, 2005. Thesis (PhD in Sustainable Development) – Center for Sustainable Development, University of Brasilia.

MCCORMICK, J. *Rumo ao paraíso: a história do movimento ambientalista*. Rio de Janeiro: Relume Dumará, 1992.

MEADOWS, D. et al. *Os limites do crescimento*. São Paulo: Perspectiva, 1972. MORIN, E. *Vers l'abîme?* Paris: L'Herme, 2007.

_____. *La voie. Pour l'avenir de l'humanité*. Paris: Fayard, 2011.

NAESS, A. The shallow and the deep, long-range ecology movement. A summary. *Inuiry,* v.16, n.1, p.95-100, 1973.

NASCIMENTO, E. P. do; ANDRADE, A. M. de. 2022: Brasil, emergente de baixo carbono e ambientalmente responsável? In: GIAMBIAG, F.; PORTO, C. (Org.) *2002. Propostas para um Brasil melhor no ano do bicentenário*. Rio de Janeiro: Campus, 2011.

NASCIMENTO, E. P. do; COSTA, H. A. Sustainability as a new political field. *IIRPC publications*, special issue, p.51-8, 2010.

NASCIMENTO, E. P. do; GOMES, G. C. *Décroissance*: qual consistência? In: NATIONAL MEEMTING ON ECOLOGICAL ECONOMICS, Cuiabá, July 2009.

NOBRE, M.; AMAZONAS, M. (Org.) *Desenvolvimento sustentável: a institucionalização de um conceito*. Brasília: Ed. Ibama, 2002.

O'RIORDAN, T. The politics of sustainability. In: TURNER, K. R. (Org.) *Sustainable environmental economics and management:* principles and practice. London: Bethaven, 1993.

PEARCE, D. et al. *Blueprint for a green economy*. London: Earthscan, 1989. REDCHIFT, M. *Sustainable development:* exploring the contradictions. London: Routledge; New York: Methuen, 1987.

RICHARDSON, D. The politics of sustainable development. In: BAKER, S. et al. (Org.) *the politics of sustainable development*: theory, policy and practice within the European Union. London: Makron Books, 1997.

SACHS, I. *Rumo à socioeconomia – teoria e prática do desenvolvimento*. São Paulo: Cortez, 2007.

SEN, A. *Desenvolvimento como liberdade*. São Paulo: Cia. das Letras, 2000.

SOLOW, R. *Growth theory:* an exposition. 2.ed. Oxford: Oxford University Press, 2000.

VEIGA, J. E. da. *Desenvolvimento sustentável:* o desafio do século XXI. 3.ed. Rio de Janeiro: Garamond, 2008.

_____. *Sustentabilidade*: a legitimação de um novo valor. São Paulo: Senac, 2010.

WACKERMANN, G. *Le développment durable*. Paris: Ellipses, 2008.

WARD, B.; DUBOS, R. *Uma terra somente:* a preservação de um pequeno planeta. São Paulo: Melhoramentos; São Paulo University, 1973.

Abstract – This text discusses the sustainability issue in the hegemonic form of qualification of a new development. It outlines the origins and the context where the idea of sustainable development has emerged as a result of the confrontation between developed countries and other countries and between environmentalists and developmentalists; analyzes and discusses its dimensions by showing the limits of the three-leaved clover configuration (environmental, economic and social); exemplifies the polysemy and translates its meaning; shows reasons for the relevance of the sustainability issue; and, finally, examines answers that are socially being built due to the possible consequences of environmental crises. In the conclusion, it summarizes the changes that have occurred in the trajectory of understanding sustainability.

Keywords: Sustainability, Sustainable development, Environmental crises.

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