

Desenvolvimento sustentável e algumas vulnerabilidades geradas pelo não atendimento de necessidades básicas

Sustainable development and specific vulnerabilities generated by the lack of basic needs

El desarrollo sostenible y algunas de las vulnerabilidades generadas por la falta de atención a las necesidades básicas

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Resumo

O tema deste artigo se insere no contexto atual de transição, ou de tentativas de transição, de um modelo de desenvolvimento considerado insustentável para outro, sustentável. Analisa essa transição pela presença de organizações internacionais atuando em prol da humanização do desenvolvimento e pela existência de novos indicadores de desenvolvimento. Tem por objetivo abordar as vulnerabilidades individuais/sociais possíveis de serem geradas pelo não atendimento de necessidades humanas. Utiliza como método a sobreposição dos conceitos de desenvolvimento, necessidades e vulnerabilidades, recorrendo a algumas disposições metodológicas da teoria da complexidade. Conclui sobre a importância de abordagens econômicas aproximarem-se da complexidade, utilizarem os novos indicadores de sustentabilidade e de valores humanos. Considera a proposição de que, quando a economia muda, o desenvolvimento muda.

Quando o ser humano muda, a economia e o desenvolvimento também mudam.

Palavras-chave: Vulnerabilidades. Necessidades. Desenvolvimento. Sustentabilidade.

Abstract

This study was conducted within the framework of the transition, or attempted transition, from a model of development considered unsustainable to one characterized by sustainability. The analysis of this transition is based on the presence of international organizations that work towards the humanization of the development process and the existence of new indices of development. The main objective is to identify the potential social or individual vulnerabilities generated by the lack of basic needs. The study approaches this question through an overlap of the concepts of development, needs, and vulnerabilities, drawing on a number of methodological procedures derived from the Complexity Theory. The results of the study indicate the need for economic approaches to assimilate the complexity of the problem, using new indices of sustainability and human values. In particular, the study concludes that when the economy changes, the development process also changes. When human beings change, the economy and development also change.

Keywords: Vulnerabilities. Needs. Development. Sustainability.

Resumen

El tema de este artículo es parte del contexto actual de transición, o de los intentos de transición, de un modelo de desarrollo considerado insostenible para otro, sostenible. Analiza esta transición por la presencia de organizaciones internacionales que trabajan por la humanización del desarrollo y por la existencia de nuevos indicadores

de desarrollo. Su objetivo es abordar las vulnerabilidades individuales/ sociales que se pueden generar por no atender a las necesidades no humanas. Utiliza como método la superposición de los conceptos de desarrollo, necesidades y vulnerabilidades, recurriendo a algunas disposiciones metodológicas de la teoría de la complejidad. Concluye sobre la importancia de los enfoques económicos se acercaren a la complejidad, utilizaren los nuevos indicadores de sostenibilidad y de valores humanos. Considera la proposición que afirma que cuando la economía cambia, el desarrollo cambia. Cuando el hombre cambia, la economía y el desarrollo también cambian.

Palabras clave: Vulnerabilidades. Necesidades. Desarrollo. Sostenibilidad.

Introduction

The proposal for a green economy disclosed at the United Nations Conference (Rio+20) draws attention to the need for the economy to be transformed so that development may follow a sustainable path. A green economy is defined as that which results in the improvement of human well-being and social equality, while significantly reducing environmental risks and ecological constraints (PNUD, 2012).

The objective proposed is to address individual/social vulnerabilities that may be triggered when basic needs are not met, based on the inter- and transdisciplinary perspective of Ecological Economics (EE).

The method used arises from the Complexity Theory, which overlaps the concepts of development, needs and vulnerabilities, with the presence of new indicators of development and major international organizations.

To carry out such a proposal, in the field called economics with a human focus, we have relied on the theoretical construction of human needs by Maslow (1975), the creator of the Hierarchy of Needs; Max-Neef (1992), founder of the Matrix of Happiness; and De Masi (2001), understanding that free time is an important human need. We have also relied on: Sen

(2000; 2001), who highlights freedom (as a human need) linked to equality as a condition and a means for development; Schumacher (1983), for highlighting human values; Furtado (1984; 1996), who differentiates development from economic growth; and Bosi (2012), who records in his article about the reconstruction of the history of economics and humanism the important, but unrecognized, Economy and Humanism movement, founded by friar Joseph-Louis Lebret, proposing the recognition of basic needs in the consolidation of communities to claim the satisfaction of such needs and redefining the concrete human being in its relationship with the economy, politics, and the Government.

Part 1 is an introduction and Part 2 addresses some of the main International Organizations (OI) and new development indicators. Part 3 presents vulnerability concepts and describes a few introductory elements regarding the formation of wishes and needs. Part 4 briefly covers the theme Economics from general concepts, going from the field of complexity to economics. Part 5 presents a combination of the elements of development, vulnerabilities and human needs, obtaining a parameter for studies about sustainability linked to needs that are not met. The conclusion closes the article.

International Organizations (OI) and the new indicators of Ecologically Sustainable (DeS) Human Development (DH)

International Organizations (OI) are established by means of treaties or agreements with the purpose of encouraging permanent cooperation among members, in order to achieve common goals, including development. Development indicators depend on what is meant by the term, and in order to differentiate the idea of growth, it is always important to distinguish between economic development (DE) as GDP increase and, therefore, of growth, from Human Development (DH) and (Ecologically) Sustainable Development (DeS) as the increase in the quality of life and well-being. That is because the generalized economic vision in the (academic, business, political and social) world is still that GDP is an indicator of development.

Meeting human needs represents respect for human rights, and meeting such rights represents the DH and, consequently, the DeS. DeS regards global issues, as the dynamics of ecosystems do not respect territorial borders created by men. In addition to this global condition, the DeS is not limited only to the concern about the natural biophysical environment outside the human environment, but it also relates to the needs of human nature – among them, to live in a healthy natural environment. Because they are global, OIs as advisors or even as controllers or regulators of paths of development in a globalized world are obviously important.

OIs were founded after the tragic atrocities that occurred during World War II, but their roots predate that period. In 1789, the Declaration of the Rights of Man and of the Citizen, proclaimed in France, showed that freedom is a human need. More than 150 years have passed and there still are countries where many human rights are not respected as late as in the first decades of the 21st century.

Only in 1945, with the United Nations Charter, signed by 51 original member States (currently, 193), did peoples from different cultures express their determination to respect the fundamental rights of people: human dignity and value. As a result, there was room for the launching of the Universal Declaration of Human Rights (in 1948, in the United States).

OIs arose from this movement. The most important OIs for the purposes of this study are listed next. The UN (United Nations) was created in 1945 to organize international relations and ensure world peace before conflicts of any type, seeking to represent the promise of security to societies worldwide. The ILO (International Labour Organization) was created before the UN and welcomed by it as its first agency, with the goal of influencing labour laws with recommendations often aimed at reducing labour exploitation by market interests, and whose agenda, in the first decade of the 21st century, still in the early stages of discussions, is to reduce the daily workload of workers. The FAO (Food and Agriculture Organization of the United Nations) was established in 1945 in order to negotiate agreements, policies and strategies for the eradication of hunger and food insecurity in the world; it also engages in ecological issues

in that water and food depend on a healthy environment. UNESCO (United Nations Educational, Scientific and Cultural Organization) was established in 1945 with the aim of contributing to peace through education, science and culture, aiming at eliminating illiteracy. The WHO (World Health Organization) was founded in 1948, subordinate to the UN, with the objective to monitor and provide guidance for the development of health in all peoples, defining health not only as the absence of disease, but as the complete state of physical, mental and social well-being. Finally, the OECD (Organisation for Economic Cooperation and Development) was founded in 1961 as replacement for the OEEC (Organization for European Economic Cooperation), with actions directed to the economic context and to the area of social policies in education, health, employment and income, working with international forums in order to articulate public policies (among the richest countries in the world) and dedicating to neoclassical economic thought, in which GDP results represent development.

Other organizations with international reach and non-governmental nature emerged over the second half of the 20th century in order to collaborate with the DH, such as Amnesty International (AI) founded in 1961, acting in the promotion and protection of human rights, and Greenpeace, founded in 1971, working internationally on issues related to sustainable development and the preservation of the environment.

The 1990s were rich in actions aimed at human rights and care about the environment. It was the decade when new development indicators were created mainly to supplement the limitations of the GDP (gross domestic product), the main indicator of economic activity, created in the 1940s.

Among the new indicators is the HDI (Human Development Index), which measures the quality of life, initially by means of the following factors: education, longevity and *per-capita* income, indicating some social vulnerabilities when these three factors are not met. Later came the SI (Sustainability Index), the more publicized one, the Ecological Footprint, created in 1996, a pioneer method that proposed to account

for the flows of matter and energy of a system by converting them into a corresponding area of land or water existing in nature. The IHV (Index of Human Values), released as a supplement to the HDI, seeks to qualitatively portray the experiences of the population with regard to health, education and work, applied in some regions of Brazil to identify how people perceive respect, freedom, reciprocity and coexistence in society. The starting point of the IHV is the idea that values are formed from the experiences of people, so the index tries to capture individuals' perception about situations experienced in everyday life (PNUD, 2010).

Vulnerability

Vulnerabilities can be observed in the environment (involving ecosystems and other dynamics of nature unrelated to humans) and through social and individual ways (involving human nature directly).

Environmental vulnerability corresponds to the environment's response to human actions, varying according to their natural and anthropogenic features, directly affecting the stability of the environment, as well as its quality (SANTOS; CALDEYRO, 2007). Environmental vulnerability is also understood as the susceptibility to environmental impact caused by anthropization. On the other hand, social vulnerability is understood as the susceptibility of societies because of the scarcity of resources in general, generating environmental risk areas, increasing uncertainty about life, and jeopardizing the possibility of another human need's being met – feeling safe (TAGLIANI, 2002).

Social vulnerability is usually defined when the following three situations exist: social/individual exposure to risk (generating sources of physical and emotional insecurity); inability to react (in the sense of impotence in the face of an actual or likely fact); and difficulty to adjust to the realization of risk (according to the adaptive limitations of human nature) (MOSER, 1983).

What we know as cumulativeness of risks, forming socio-environmental vulnerability, is formed from the relationship between nature and society, which are both at risk (MENDONÇA, 2011).

a. Formation of wishes and needs

Many human needs and wishes have been described in the most ancient scriptures of human history and have subsequently become part of philosophical debates in ancient Greece. As a result, science has carried out research, built concepts, divided the theme into different areas of knowledge and, in some ways, quartered the knowledge about human nature.

One of the ways to understand the formation of wishes is described by Lacan (apud DOR, 1989), in the sense that wishes acquire voice in the unconscious and, although it seems to be individual, it is revealed by the other by means of the other's discourse, to the extent that the human subject is an effect of language. For Lacan, defining the other's wishes was establishing an explanatory principle to social and cultural transformations. The wish shows the absence of the desired object or indicates the presence of the perception of what is lacking, i.e., the need. In a society, such a perception happens in a dynamic and chained manner, and it is always supported by what, at first, few realize. But as the new perception is transmitted to others, the human group begins to have similar wishes, and thus new cultures are formed.

The cultural system as a formative element of wishes and perceptions is able to hide some needs and create others. That is what happened with the consumerist cultural mimicry initiated in the last century, when some human needs were muffled by the interests of the market and others were created.

As Adorno observed (1995), in the 20th century the legitimate sense of culture was breached, and culture became subordinate to the laws of market equivalence, which created a culture of production and consumption at any cost. Everything became a product. Civilization should have transcended, but regressed and became consumable, an

imitation, to the extent of forgetting some of its real needs for well-being and, in some ways, humans were somehow dehumanized.

Activating the humanization process is expanding the development of individual cognitive capabilities of the people. As a result of this process, the individual/social perception about needs, well-being and/or quality of life can be extended.

In the Ottawa Conference, held by the WHO in 1986, the terms quality of life and health were defined as a complete physical, mental and social well-being (WHO, 1986), in accordance with human needs. The document resulting from this Conference, the Ottawa Charter, states that individuals and social groups must learn to identify their aspirations and to satisfy their needs (Ibidem).

One of the most widespread theoretical approaches to human needs was developed by Maslow (1975), in a hierarchical sense of needs, obeying a range of values to be overcome. Physiological needs are at the base, followed by safety, love/belonging, esteem, and self-actualization.

These five groups of needs encompass three types of reasons: 1) the physical ones; 2) those related to the interaction with others; and 3) those related to the *self* (Ibidem). The priority given to physiological needs, forming the base of the hierarchy of needs, cannot be much questioned. However, the order of the remaining needs may be discussed if the analysis is made from a complexity point of view and, in this sense, such needs are related as in a network and not in the form of pyramidal hierarchies.

The most basic physical or physiological needs, responsible for the proper functioning of the body, are: the need for food (including water); air; excretion; homeostasis; shelter; and rest (besides solar energy).

The first three needs (food, air and excretion) explain the human body (alive) as an open system that permanently exchanges matter and energy with the external environment.

Homeostasis, a type of nature's own will, is "the ability of an individual to maintain constant inner conditions in the face of a varying external environment" (RICKLEFS, 1996, p. 145). The state of balance of the various functions and chemical compositions of the body – such as temperature, pulse, blood pressure, blood sugar, etc. – depends on the body's resilience. This ability describes the amount of disturbance that can be absorbed by the body (or by ecosystems), as well as the speed of return to the state of balance (once disturbances are eliminated), before a fundamental change in its structure occurs or causes the symptoms of diseases (or serious imbalances).

The need to shelter the body is related to homeostasis and safety. The human body receives influences from the temperature and works to reach a balance to keep it alive.

According to Mendonça, "the climate is one of the main factors to influence the different types of adaptations of humans to the planet's surface, and may influence them positively or negatively". Human sensitivity to climate, or air temperature, if too high or too low, is also one of the stimulating elements of human aggression (MENDONÇA, 2001, p. 23). In addition to the relationship between shelter and climate, which may trigger individual/social vulnerabilities, the need to shelter the body also involves the need for physical safety in the face of dangers that may hit it. Insecurity or vulnerability of the body without shelter or with inadequate shelter can cause psychological changes, interfering with human behaviour in the same way as it occurs with homeostasis as the human body's physiological defence concerning temperature.

Such natural reaction triggers behavioural effects or stimuli to seek well-being or thermal comfort. On this subject, Ayoade (1996) considers that, to the extent that climate conditions differ spatially and influence the metabolism of the human body, a previously studied question is raised, especially by climatologists, in relation to the interfaces and complementarities between climate and society, climate and behaviour, involving the relation between climate and well-being or climate and ill-being. According to Ayoade:

Although it is recognised that the climate is only a portion of the great focus of human well-being, human health, energy and comfort are affected more by the climate than by any other element of the environment. Human physiological comfort is defined mainly by temperature, wind and moisture (1996, p. 189-0).

The need for physical rest also triggers homeostatic body reactions. The body's defence against physical exhaustion is sleep, a need mentioned by the WHO as the third most important basic need for health, followed by water and food.

Other descriptions of human needs are provided by Max-Neef (1986) and Lebrét (apud BOSI, 2012). Max-Neef (1986) stressed the need for subsistence, protection, understanding, participation, leisure, creation, expression of freedom and identity, exercise of affection, love and idleness, classified into two categories: the existential and the axiological ones.

Lebrét (apud BOSI, 2012) classified needs as personal and collective. Biology would know personal needs as basic, which would cause death when not met under maximum limits. He named as domestic facilities those services such as water, electricity and heating; and as external facilities the core services of a neighbourhood. He also listed as needs a regular job and a cultural and social life, with education comprising reading and historical, political and religious knowledge. He listed dignity (including a space to receive friends) and the psychic and social comfort of the human being in a second class of personal needs. As a cultural need he included the mastery of an art and the ability to understand a piece of literature. With regard to personal or tertiary needs, he asserted that human beings should be able to develop their capabilities to the fullest (Ibidem), so that Human Development can occur.

According to studies on needs for health and well-being, quality free time is a key element. Lebrét also considered free time to think, study, meditate, contemplate, create works of art and pray, which are hindered by overwork, or bureaucratic work, and the sting of material care (Ibidem). In the same line is De Masi (2001) in his book "Creative Idleness", which addresses the need for time to idleness considering that society has

reportedly moved from the industrial phase to a post-industrial phase. In the latter phase, the centre of the economy would shift from the production of material goods to immaterial goods, i.e., to an economy that valued new ideas and analyzed human needs better – or analyzed them in a more complex fashion (DE MASI, 2001). Max-Neef also includes the need for idle time to carry out life's activities that are beyond what the market can provide.

While free time – which naturally existed in people's lives – was not considered a need in the past, as the new industrial model imposed more activities to humans, occupying a longer time of people, industrial society itself (mistakenly called developed) culturally adopted the idea that free time is something negative, something to be despised, linked to those who are retired, unemployed or unoccupied. However, free time is necessary to achieve sensitive needs with freedom, such as interaction with others and the relationships with the self (MASLOW, 1975); to exercise affection, leisure, creation, participation, protection and idleness itself (LEBRET apud BOSI, 2012). Idleness may be just lying in a hammock and meditating (MAX-NEEF, 1992), reading, praying, and studying for leisure. In short, it is carrying out instruction (LEBRET apud BOSI, 2012).

In “Love and Hate”, Eibl-Eibesfeldt (1970) concluded that if there is an innate aggressiveness instinct in humans, there is also a strong counter-impetus, and that the potential for good is biologically ours, as well as our self-knowledge. Without the feeling of love, aggressive feelings prevail, and the opposite holds true. While love-related feelings are the care for each other, friendship and sympathy, feelings that break sentimental connections are greed, competition and aggression. This theme was also developed in the 18th century by Adam Smith in Theory of Moral Sentiments (SMITH, 2002), when from the beginning of the functioning of the economic system the importance of feelings of sympathy for social well-being were already perceived, and feelings of greed and selfishness were builders of ill-being.

Although good (peace, tranquillity, love) and evil (aggressiveness, hatred, elements that generate insecurity) impulses coexist in human nature,

Eibl-Eibesfeldt (1970) concludes that culture can stimulate, suppress or redirect such impulses.

He considered that modern human society has lost much of its primitive reasons for aggressiveness; however, on the basis of behaviours, the biological condition of the species has not disappeared, because basic needs have not disappeared. He further states that the impossibility to release accumulated negative impulse (dissatisfaction due to unfulfilled biological needs) can lead to aggressive behaviour to seek to release such impulse, which increases individual/social vulnerability.

Further in regards to aggressiveness, Freud (apud EIBL-EIBESFELDT, 1970) held that although it is not possible to abolish it from the human condition, it is possible to neutralize it by activating all those forces that meet basic human needs and those that establish sentimental connections between human beings; in other words, everything that produces significant common points between human beings stimulates such feelings of community, and the structure of human society rests largely on these feelings (Ibidem).

Economics

Economics is the study of scarcity for the fulfilment of human needs. It arose with the name Political Economics, as the branch of knowledge essentially focused on the administration and strengthening of the State. After Adam Smith the focus of political economics shifted from the State to the individual.

Smith and Hume (apud HEILBRONER, 1996) sought to rationalise the social world and believed that political economics should discover the principles that would ground the achievement of human happiness – which would arise from the study of the human being and its motivations.

At the end of the 19th century, Marshall (1996) considered that the concepts of wealth and social welfare were essential for economics.

The fundamental points of this approach were that human needs and desires are numerous and manifold, and that changes in the cultural stages of organized societies would define the transformation of desires. He realized that, on the one hand, economics would be a study of wealth from the use of natural resources and, on the other hand, it would be the study of the human being. At the centre, one would find the economic activity with all relationships between production and consumption, job generation, income flow, and investment decisions.

In view of the complexity in understanding human nature and the quartering of knowledge, economics has limited itself to the internal relations of the economic system, such as the speed of currency circulation, the increase in production, the generation of jobs, and all the intricate calculations required by production and consumption relations, and define it as neoclassical economics, but leaving aside the centre of the study of human nature and the consideration that the natural environment has a life and a logic of its own.

Such understanding has been maintained and today remains in economics books, with neoclassical approaches, such as Mankiw (2003), in which the two poles of nature (human and nonhuman) remain in the definitions, but in practice are only gears needed for the economic system to remain in operation, and the more automatons, the better for the economy. Hence the deep divergences between the neoclassical and the ecological aspects of economy, in as much as these two poles that keep the economic system in operation are composed of living elements. And many sturdy neoclassical theories become empty when considering it as such in its complexity.

a. Complexity in economics

There is no specific theory that addresses complexity in economics or the economics as a complex science.

In this sense, what supports studies on complexity for sustainable development depends first on understanding the complexity of life itself.

As Japiassu describes (1976; 1977), the quest to dissolve reductionism has left room for the emergence of a critical epistemology about the social responsibility of scientists and theorists in the construction of knowledge. From this search emerged complexity and the opportunities to face complex human problems, such as the difficult task of going from an entire model of development to another, to which the so-called green economy intends to make its contribution.

Morin (1995) notes that science itself has taught us to separate and isolate things to be investigated, because there is no way to deal with the whole, but denying complexity due to the difficulties that it presents does not solve complex problems. An example given by Morin (1995) refers directly to the economy, that is, it is the most sophisticated human science in the mathematical and formal plan, but unable to act alone on the various crises that the economic system presents from time to time.

Morin (1995) and Morin and Prigogine (1996), as well as other scientists who have faced the problem of complexity in science, have understood that within theories there is a dark core involving several interests, often more concerned with scientific objectivity than with the complex reality of things.

They argue that “scientificity is the immersed part of a deep iceberg of non-scientific theories” (MORIN; PRIGOGINE, 1996, p. 18). According to Morin, the discovery that science is not entirely scientific is a major scientific discovery that most scientists have not realized yet.

This recognition reinforces the importance of research aimed at substantive rationales (SERVA, 1996) or what Morin and Prigogine (1996) call open, complementary to instrumental, rationality. These are theoretical/methodological alternatives for a new economy, in which the conditions of *homo consumericus* and *homo economicus* are reviewed to rescue *homo sapiens* – which can bring the economy to a human and ecological condition.

Although regarded by some as controversial, Horkheimer (1976) defended the junction of instrumental and subjective rationalities,

and even postulated about the need to overcome positivism, which seeks truth criteria which are exclusively operational and dominating, unable to understand other rationales. According to Horkheimer's (1976) arguments, an alive and critical society, from time to time, acts from the expansion of the consciousness about the resignations/ vulnerabilities felt, and thus announces needs for change. From this theoretical perspective, the changes designed to a new development model leave the field of positivism and enter the field of complexities.

The concept of complexity suggests the challenge and motivation for thinking and is, above all, "the effort to devise an unavoidable challenge that reality throws on our mind" (MORIN, 1999, p. 176). An example given to further understand complexity is that "if we try to think about the fact that we are – at the same time – physical, biological, social, cultural, spiritual and psychic beings, it is clear that complexity is that which tries to conceive articulations, identity, and difference in all aspects". In this sense, the ambition of complexity is "to give account of articulations shattered by cuts between disciplines, between cognitive categories, and between types of knowledge." Complexity is not a proposal which intends "to give all information about a studied phenomenon, but to respect its various dimensions [...] this is a principle of incompleteness and uncertainty" (MORIN, 1999, p. 177).

It is within this concept that lies EE, as a complex, inter- and transdisciplinary approach. Piaget (1970) coined the term transdisciplinarity; Nicolescu (1999) presented the Manifesto of Transdisciplinarity and several other studies; and Morin (1995) developed the Theory of Complexity.

The list of researchers which espouse EE is extensive and constantly growing. Cavalcanti (2010) presents a list which sorts them as much as possible, according to the lines of study they develop. He also lists the names of ecological economists organized by Alier (2007), which gives wide bibliographic references of EE. They all have as common denominator the defence of a sustainable model of socioeconomic and ecological development.

EE views the economic system as a subsystem of a larger ecological system and is dedicated to the relations of the laws of thermodynamics with the economy, and with the logics of natural systems, highlighting the scale and reliance of each of these systems (GEORGESCU-ROEGEN, 1975).

In addition to the relationship of the economic system with non-human natural systems, EE opens spaces to the further understanding of the human dimension of the economic system, no longer as a gear feeding it, but rather as its *raison d'être*. By placing the human element as superior to the economic element, the logic of neoclassical thinking is inverted, i.e., things will no longer require certain behaviours and needs of people, but instead people will define their needs, their behaviour, and the behaviour of the economic system. Therefore, it is essential that people have the perception about their real needs, their rights and capabilities, thus being the legitimate authors of sustainable development, able to generate quality and well-being to their lives.

Globally, the strengthening of EE in the human field has received support from International Organizations to the extent that human rights are increasingly being disclosed and, with them, the perception about real human needs is broadened.

The important debate between EE versus neoclassical approaches is increasing as new indicators have demonstrated and confirmed social and environmental unsustainability – and, with it, social and environmental vulnerabilities.

These statements are supported by the conclusions present in Agenda XXI (1992), which states that the success of sustainable development depends on modifying behaviours and lifestyles, on changing values and deeply rooted cultural and moral precepts, on expanding the individual and social perception on development, on which the human behaviour is based.

The notion of development independent from neoclassical thinking may also be covered in Furtado's (1984) description, by stating that

societies are deemed as developed to the extent that men can satisfy their needs, express their aspirations, and exercise their genius creator. Development is:

[...] a creative process of invention of History by men, in contrast to the mimetic and repetitive framework of which dependent societies are prisoners. [...] Development is less the domain of nature and more a process of creating values, and therefore an advance of substantive rationality or purposes (FURTADO, 1984, p. 63).

The relationships with meeting the needs of human nature are also evident in other definitions of development. Among such definitions are those provided as follows. Cavalcanti (2001) defines development as the achievement of certain objectives of value to the advancement of the human being from an integrated vision of ecological, economic and social variables, in addition to biological, physical, political, institutional and cultural aspects, not forgetting ethical and philosophical supports. Schumpeter (1997) understands that development is changing, it is whatever is new, with the meaning of evolution, transformation. Sen (2000) states that development is the exercise of individual freedom and human capabilities and a process of expanding the substantive freedoms of people.

Freedoms are not the primary purpose of development, but the main means. Furtado (1996) also defines development as not the domain of nature but rather a process of creating values, of advancing substantive rationality. Likewise, Schumacher (1983) notes that development represents giving humans the opportunity to use and develop their faculties, among which artistic creativity, in a progressive improvement of well-being from the performance of truly human new capabilities and potentialities.

In view of such a definition, it is unjustifiable to try to reach DH and DS from the good performance of the GDP, excluding whatever new indicators of HDI and mainly whatever the IVH may show.

Unsustainability and the failure to meet needs

The essence and the challenge of the concept of ecological sustainability are the maintenance of physical stocks of natural (not degraded) capital and the fulfilment of human needs. The essence of unsustainability is the irreversible reduction of natural stocks with the expansion of individual/ social vulnerabilities. Not meeting real human needs is one of the main factors of social and environmental vulnerabilities (source of insecurity), while the race to meet all needs created by the consumerist culture is seen as one of the reasons for the unsustainability of the growth/ development model adopted in most countries.

Monitoring the evolution of environmental conditions of development depends on the data of the new indicators created (HDI, IS, IVH), but still on the implementation phase of more variables and scope. Several reports are released each year, organised by OIs, with the aim of registering and disclosing global life conditions.

Global data related to the distribution of food and drinking water, and illnesses that afflict societies the most, or even data on violence, are some of the information that can be counteracted to the definitions of human needs, vulnerabilities and development.

According to data from the FAO (2011), approximately 925 million people in the world do not have access to enough food so that they are considered healthy; hunger is on the list of the 10 greatest risks to life. Each year it kills more people than AIDS, malaria and tuberculosis altogether (WHO, 2012). In Brazil, 40 million people live a mild form of food insecurity; 14 million are in a moderate condition; and 11 million suffer from food deprivation, regarded as severe food insecurity (IBGE, 2012). However, there is an excess of food consumption, generating obesity problems in many societies, and Brazil does not escape this diagnosis. In addition, there is excess food waste – about 1.3 billion tons of food are lost, according to an UN report (FAO, 2011).

UN reports repeat diagnoses stating that more than one billion people do not have access to a minimum acceptable amount of drinking water,

and it is estimated that by 2025 more than five billion people will be part of the statistics. In Brazil, according to a report prepared by the National Water Agency (ANA, 2012), despite the apparent comfort in terms of water reserves, spatial distribution is uneven. About 80% of water availability is in the Amazon, with the smallest population, and 47% of the water in urban areas has been evaluated as bad or very bad, given the low rate of collection and treatment of sewage; it was further noted that only 45.7% of Brazilian households have access to the sewer network. Of the 5,565 cities in Brazil, more than half may suffer from a deficit in water supply in 2015 due to the lack of investments to adapt systems that produce drinking water. In addition to being essential for the maintenance of (human and nonhuman) life, water is also essential for the industrial sector, as it generates jobs and income. Even so, basic sanitation, garbage collection and destination measures are not tackled, and there is not yet a social perception that these public investments are very important.

According to a report by the Ministry of the Cities (2011), Brazil will have to invest R\$ 420.9 billion to solve the problem related to basic sanitation, regarding structural and structuring measures. However, annual public investments are divided into several segments, and investments are a result of social pressure and political efficiency, which depends on individuals' and society's perception of their own needs. Without such a perception there is not enough social pressure and, within this framework, the prospect for the aggregation of this investment is 20 years.

Insomnia was diagnosed by the WHO (2011) as the most common health problem in the world, and a series of diagnoses point to behavioural changes and increased aggressiveness when sleep is affected negatively. The causes of insomnia are several, but the most evident and mentioned by the WHO is stress (released in 2008, also by WHO, as the epidemic of the century). Depression, noise pollution, hunger, lack of decent housing, lack of security, and lack of time are also sources of insomnia.

The need to rest is affected by the consumer culture established in the last century that imposes the need for having, rather than the need for being. This lack of time for sensitive, social or psychological activities,

or just for mental relaxation (idleness) triggers insomnia and stress.

With the population increase and the concentration of people in urban centres, with workdays often exceeding eight hours per day, with the inefficiency of urban mobility and collective transport services, and given the inefficiency of the public and private sectors to meet the demands for social services (telecommunications, banking, health among others), time for the practice of life is reduced.

In this sense, service queues, queues for transportation, several queues, may be considered as unsustainable for the well-being and the quality of life of people, and this is also a strong call for definitions of policy priorities for Human Development.

Aggression and violence in the world today are measured according to records of police stations and the size of the prison population, but not by the lack of fulfilment of human needs. The Brazilian prison system is among the worst and most inhumane in the world (GRECCO, 2010), and, according to the analyses of said author, there is still a social culture in which prisoners should not have human rights. This somehow enhances the failure to fulfil their needs and increases the problem of their return to society.

Conclusion

In the globalized world, the importance of OIs as advisors, regulators, or even controllers for development must be highlighted, which should take into account real human needs and a healthy environment to live with quality, with the minimization of vulnerabilities.

The cultural system as a formative element of desires and perceptions can hide some needs and create others, as it has happened in the current culture of production and consumption at any cost, in which everything is considered merchandise. However, real needs go beyond those considered basic, because other needs are also necessary for the well-being of all such as understanding, participation, leisure, creation,

the expression of freedom and identity, affection, love and idleness, i.e., time to think, study, meditate, contemplate, create works of art, and pray.

From the point of view of ecological economics, sustainable development cannot be reached through neoclassical thinking. This science, which should naturally be interdisciplinary, while having been framed by disciplinary moulds and having its interests reduced to the dynamics of the mechanical operation of the market, has turned out not to be able to generate sustainable development with human physiognomy. By searching for mathematical rigor, neoclassical moulds of economy eliminate from their approaches everything that concerns life and its complex relationships and articulations.

Thus, it becomes inefficient to the extent of being in the eye of the storm called unsustainable development. With its simplifications, it creates other problems to be solved in the future at every resolution of a problem. All this knowledge is highly complex and demands other approaches to its understanding and comprehension. The lack of social perception about the negative consequences of not meeting human needs interferes with the quality of life of all.

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