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Interconnections between Ecological Economics, global development agendas, and public policies for sustainable local development

Interconexões entre a Economia Ecológica, as agendas globais de desenvolvimento e as políticas públicas para o desenvolvimento local sustentável

Interconexiones entre la Economía Ecológica, las agendas globales de desarrollo y las políticas públicas para el desarrollo local sostenible

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PALAVRAS-CHAVE

Economia ecológica.
Políticas públicas.
Desenvolvimento local sustentável.

Resumo: A emergência climática e suas consequências sociais e econômicas têm atraído a atenção da administração pública, das empresas, das organizações da sociedade civil e da academia. Desde a segunda metade do século XX, compreender as consequências das pressões antropogênicas impostas sobre os ecossistemas têm resultado no surgimento de abordagens teóricas alternativas que questionam o modelo dominante de produção, consumo e relações humanas. Essas abordagens incluem a economia ecológica, o ambientalismo e o ecodesenvolvimento. Este artigo explora como a Economia Ecológica e as agendas globais para o desenvolvimento sustentável, como a Agenda 2030, promulgada pelos países membros das Nações Unidas em 2015, podem influenciar a reorientação das políticas públicas no nível subnacional. A suposição subjacente é que as ações desenvolvidas nos níveis governamentais subnacionais podem proporcionar transformação global. Para isso, optamos por uma pesquisa bibliográfica de natureza qualitativa e descritiva. O debate foi permeado pela

contradição entre o crescimento tendendo ao infinito, possível apenas nas ideias neoclássicas de economia, e os limites biofísicos da Terra. Os resultados apontam para a tendência de que conceitos derivados dos novos paradigmas de desenvolvimento sustentável estão sendo internalizados no nível local, especialmente aqueles originários da Economia Ecológica e correntes relacionadas, possibilitando diretamente melhorias na qualidade de vida das pessoas, enquanto o meio ambiente é respeitado.

KEYWORDS

*Ecological Economics.
Public policy. Sustainable
local development.*

Abstract: *The climate emergency and its social and economic consequences have garnered the attention of public administration, companies, civil society organizations, and academia. Since the second half of the 20th century, understanding the consequences of anthropogenic pressures imposed on ecosystems has led to the emergence of alternative theoretical approaches that challenge the dominant model of production, consumption, and human relations. These approaches include ecological economics, environmentalism, and ecodevelopment. This article examines how Ecological Economics and global agendas for sustainable development, such as the 2030 Agenda, proclaimed by member countries of the United Nations in 2015, may influence the reorientation of public policies at the subnational level. The underlying assumption is that actions undertaken at subnational government levels can catalyze global transformation. To this end, we conducted qualitative and descriptive bibliographical research. The discourse was characterized by the tension between growth, conceived as infinite, a notion primarily found in neoclassical economic thought, and the biophysical constraints of the Earth. The findings suggest a growing trend of incorporating concepts derived from new paradigms of sustainable development at the local level, particularly those rooted in Ecological Economics and related streams of thought, thereby facilitating direct enhancements in people's quality of life while preserving the environment.*

PALABRAS CLAVE

*Economía ecológica.
Políticas públicas.
Desarrollo de sostenibilidad
local.*

Resumen. *La emergencia climática y sus consecuencias sociales y económicas han captado la atención de la administración pública, las empresas, las organizaciones de la sociedad civil y la academia. Desde la segunda mitad del siglo XX, comprender las consecuencias de las presiones antropogénicas impuestas sobre los ecosistemas ha dado lugar al surgimiento de enfoques teóricos alternativos que cuestionan el modelo dominante de producción, consumo y relaciones humanas. Estos enfoques incluyen la economía ecológica, el ambientalismo y el codesarrollo. Este artículo examina cómo la Economía Ecológica y las agendas globales de desarrollo sostenible, como la Agenda 2030, proclamada por los países miembros de las Naciones Unidas en 2015, pueden influir en la reorientación de las políticas públicas a nivel subnacional. La suposición subyacente es que las acciones emprendidas a niveles gubernamentales subnacionales pueden catalizar una transformación global. Con este fin, llevamos a cabo una investigación bibliográfica cualitativa y descriptiva. El discurso estuvo marcado por la tensión entre el crecimiento, concebido como infinito, una noción que se encuentra principalmente en el pensamiento económico neoclásico, y las limitaciones biofísicas de la Tierra. Los hallazgos sugieren una tendencia creciente de incorporar conceptos derivados de nuevos paradigmas de desarrollo sostenible a nivel local, particularmente aquellos arraigados en la Economía Ecológica y corrientes de pensamiento relacionadas, facilitando así mejoras directas en la calidad de vida de las personas mientras se preserva el medio ambiente.*

Introduction

Climate change induced by human action, the disproportionate and sometimes irrational use of non-renewable natural resources, the climate emergency and the serious social problems arising from this utilitarian conception of the planet have stimulated, in recent years, public policymakers, business managers, researchers and important segments of civil society to rethink their actions.

From the late 1960s and early 1970s, driven by the letter "The Limits to Growth", written by a team of scientists from the Massachusetts Institute of Technology (MIT) at the request of the think Club of Rome, the critique of unbridled growth, in contrast to what would become the new construction of development, began to occupy a prominent position on the world stage. The main emphasis of the document is on the consumption patterns employed by the central countries which, if adopted by all people, for the first time in history could jeopardize the survival of future generations, in view of the production capacity existing until then (Meadows et al., 1972).

In this way, the plea turned to degrowth, or "zero growth", causing the writing to be rejected by peripheral countries that enjoyed full economic growth, such as Brazil, which was experiencing the "miracle" during the second decade of the military dictatorial regime (Romeiro, 2012).

Still under the impact of this document, the United Nations Conference on the Human Environment, held in Stockholm in 1972, was the first major meeting organized by the United Nations (UN) to address issues related to environmental degradation, serving as a turning point in the consumerism mentioned above and acting as a precursor in the creation of an international environmental policy orientation.

Concomitantly, the environmental movement promoted, above all, in Western Europe and the United States of America (Dupuy, 1980) as well as the rising of political ecologism, characterized by addressing, in an interdisciplinary way, themes such as the environment and human emancipation (Gorz, 2010), proposed to question the dominant model of production and consumption, severely harmful to the environment and people's lives. The

solution for these groups also goes through degrowth. It was precisely in this context that Earth Day began to be celebrated and the overload of exploitation of natural capital began to be estimated, highlighting that more than one planet would be needed to meet the population's demand if the average consumption of developed countries were replicated by all others in the same proportions (Global Footprint Network, 2019).

In view of the pressures coming from several countries, it was essential to build a model that would contemplate the satisfaction of the needs of a consumer society without surrendering to the archetype of purely economic growth, detached from environmental and social concerns. For this reason, "during this time, the term eco-development stood out" (Romeiro, 2012, p. 70). Montibeller Filho (1993) highlights that the term was introduced by Maurice Strong, Secretary of the Stockholm Conference, and was popularized by Ignacy Sachs.

In 1987, a year after the Chernobyl catastrophe, considered by many authors as a turning point in the environmental issue, the conceptualization of sustainable development came to light as "that which meets the needs of the present without compromising the possibility of future generations meeting their own needs" (Brundtland et al., 1987, p. 43), through the Report "Our Common Future". This new concept replaced eco-development and was definitively at odds with the model of growth based on the accumulation of wealth, even though it implied the degradation of ecosystems and the increase of social inequalities and the problems intrinsic to it.

It is precisely in this context that the International Society of Ecological Economics (ISEE) emerged in 1988, which questions the various currents of neoclassical economics that trivially reduce economic relations to exchanges between companies and families, relegating the environment and human aspirations to the secondary role of appendage, hanger or externality.

Subsequently occurred, the publication of the first issue of the scientific journal Ecological Economics, in February 1989, and the first major international conference that dealt with the

subject, in 1990, at the World Bank's headquarters in Washington, DC (Costanza, 2019). Spash (2020, p. 3) points out that, after this meeting, there was an expansion at a global level, culminating in the creation of the European Society for Ecological Economics (ESEE), in 1996, the creation of a constitution that recognized the importance of regionalization of the institution, and the United States Society for Ecological Economics (USSEE), in 1998, making this a "diverse, multinational, regional and associative".

In Brazil, the main exponent of Ecological Economics (EE) is the Brazilian Society of Ecological Economics, or ECOECO, created in 1993, linked to the International Society of Ecological Economics (ISEE) and responsible for promoting this thinking in the country, based on discussions promoted at events, fairs, congresses and fostering scientific production (Ecoeco, 2019).

In addition, between the final decade of the 20th century and the beginning of the 21st century, events such as the United Nations Conference on Environment and Development, also known as Rio 92, Eco-92 and the Earth Summit, the dissemination of Agenda 21 and the Earth Charter, the enactment of the Millennium Development Goals (MDGs), in 2000, and the 2030 Agenda and its Sustainable Development Goals (SDGs) in 2015, reinforced the need for a confluence between different actors interested in balancing the environmental, social and economic dimensions of sustainability.

In this way, Ecological Economics as a transdisciplinary approach and global agendas for sustainable development can positively – and jointly – influence business actions, the mobilization of people around causes of public interest and the elaboration of public policies capable of conferring dignity to people and the satisfaction of their needs, while the limits of the planet are understood and respected.

However, for them to be successful, strategies need to be established to ensure the territorialization of common goals of all peoples. In this regard, Conti and Vieira (2020, p. 24) state that "cities are the greatest political-economic force of the twenty-first century and bring together a unique capacity for the participation and articulation of

civil society in the creation of sustainable solutions and long-term plans". And they add that "cities are the protagonists of the global development process, but at the same time, they have generated a series of negative externalities to the environment and ecological scarcity", given that it is in them "that people live, exercise their individual freedoms, produce knowledge and innovation" (Conti & Vieira, 2020, p. 32).

The confluence between good local governance and development is thus noticeable (Conti et al., 2019; Emerson et al., 2012). Consequently, subnational development strategies can be positively impacted by strong and stable institutions as part of this process. This is even more shocking because, according to the Global Urban Observatory (GUO), more than half of the world's population currently lives in cities (Bento et al., 2018). And if the urbanization trend continues to accelerate equally over time, it will cause the proportion to jump to approximately two-thirds of humanity living in cities by 2050 (UN-Habitat, 2022).

In Brazil, the percentage of people living in urban areas has already exceeded 85% of the population (Bento et al., 2018). Comparing this number with the rates observed in the twentieth century, it becomes evident that the phenomenon of urbanization occurred with remarkable speed in the country. Although it seems to generate benefits, this process.

has brought enormous challenges and the large metropolitan regions concentrate many of them, such as housing precariousness, violence, the imbalance between housing location and opportunities, generating the well-known daily commuting movements and their multiple negative consequences. (Bartalini & Bucalem, 2020, p. 35)

The adoption of sustainable actions has proven to be a requirement in current times, an essential condition for the construction of a fairer and more favorable world for the preservation of the environment. In view of the above, the present study intends to address the following research question: how does the worldview of Ecological

Economics guide the formulation of public policies with the purpose of harmonizing sustainable local development policies with sustainable practices?

In view of the above, the article aimed to reflect on the use of the paradigms of Ecological Economics and global agendas for sustainable development in the reorientation of public policies formulated and implemented at the subnational level.

Methodological elements of the research

To address the problem and achieve the proposed objective, it was decided to carry out a descriptive research, characterized by Severino (2007, p. 123) as one that, in addition to "recording and analyzing the phenomena studied, seeks to identify their causes."

The research also sought to demonstrate the connection between Ecological Economics, global agendas for sustainable development and local development strategies in Brazil. In this sense, it is an explanatory research. According to Gil (2008, p. 28), this type of research "has as its central goal to identify the factors that determine or contribute to the occurrence of phenomena."

Its character can be framed as qualitative, as it was intended to "[...] understand the logic of social processes and structures, based on in-depth analyses of one or a few particular cases" (Cebrap, 2016, p. 8).

As for the typification of the research, it is classified as bibliographic, defined by Marconi and Lakatos (2003) as that which makes use of documentation of a diverse nature and published in different supports. To this end, classic works by Brazilian and foreign authors were selected, chosen through the Capes periodical, in databases such as Scielo, Web of Science and Scopus, involving seminal works, as well as Brazilian authors recognized for their research in the field of sustainability.

Ecological Economics

In an unprecedented way in history, climate change caused by human action has demonstrated its ability to threaten the survival of life on the

planet. And the economic development model adopted in recent decades plays a fundamental role in this announced tragedy (Dowbor, 2017a).

However, the emergence of Ecological Economics is attributed to the second half of the twentieth century, an unprecedented moment of the ebullition of ideas oriented towards the care of the planet and the repair of the social developments caused by the unequal distribution of wealth and the misuse of natural resources, in response to the environmental and socioeconomic asymmetry characteristic of the Anthropocene.

Unlike neoclassical environmental economics - which deals with economic production without considering the physical and ecological limits of the planet, given that some ecosystem resources are not replaceable by capital - Ecological Economics argues that life on Earth is at risk of disappearing if some natural assets are lost or compromised. Considering the possibility of ecological constraints for economic and social development reveals a new awareness of planetary ecological problems.

Making use of the 2nd Law of Thermodynamics, Georgescu-Roegen (2013) pointed out that productive activity is responsible for dispersing energy, waste and pollution irreversibly in the environment, expanding the understanding of economic relations beyond the exchanges between families, companies and the State. For the author, this reductionism would be inherent to orthodox economics and, more specifically, to the neoclassical school, based on mechanism, that is, on models that are supposed to be able to explain economic relations. In this regard, Cavalcanti (2010, p. 57) comments that "the adherence of economists to a mechanical dogma is a mystery".

Veiga (2010, p. 112) points out that, unlike other exponents of Ecological Economics, the Romanian heterodox mathematician and economist did not believe in the possibility of saving ecology through transitional theories, such as development without growth, proposed by Herman Daly, one of his closest disciples. In the view of Georgescu-Roegen (1971), since degrowth is inevitable, it is preferable that it happens voluntarily, without the need for

humanity to test the extent to which ecosystems will be able to withstand anthropogenic pressures. His theory, therefore, is a call for caution, as opposed to indiscriminate economic growth.

The critique in Ecological Economics stresses that these issues cannot be ignored and must be addressed by economics. Hence, he theorized economics as a subsystem of ecology. Martínez-Alier (1994) explains that Ecological Economics is not merely a branch of conventional Economic Theory, but rather an in-depth revision of economic science, to insert ecological ethics and "ecojustice" into the economy, as opposed to the neoclassical model, dominated by anthropocentrism (Washington & Maloney, 2020).

As Andrade (2008) points out, Ecological Economics broadens the field of analysis of the most widespread conception of sustainable development and economic-environmental sustainability, while neoclassical environmental economics seeks to include the concept of sustainable development in its analytical framework. Thus, in essence, ecological economics and neoclassical environmental economics rely on distinct approaches to the relationship between the economic system and the environment.

The implosion of the dominant economic model, especially after the great recession of 2008, as well as the news and scientific studies that show the imminent climate catastrophe, led Moraes and Torrecillas (2013, p. 59) to state that "the concepts considered by a number of economists as untouchable are collapsing and giving way to an emerging field of criticism". In this way, the authors emphasize that "the theoretical assumptions of neoclassical economics have not given sufficient intelligibility for the understanding of contemporary economic and political phenomena."

It is also known that Ecological Economics can guide the formulation of environmental public policies or environmental legislation. As examples, we can cite authors such as: i) Aguilar et al. (2017), emphasizing the role of this strand in the development of public policies for Latin America; ii) Garcia and Romeiro (2019), in the study of water assessment of the Upper Iguazu basins and

Tributaries of the Upper Ribeira, in the state of Paraná, based on an economic-ecological modeling, and; iii) Cruz, Barella and Fonseca (2020), in the work on important regulatory issues in the Atlantic Forest present in the state of Minas Gerais, in order to compensate for deforestation.

In this way, Ecological Economics emerges as an important mechanism for the construction of policies that opposed the dominant model of unbridled economic growth, consumption and waste, generating social inequalities and pressures on the planet's natural ecosystems. For this reason, Cechin and Veiga (2010, p. 451) point out:

At the beginning of the 21st century [...], they [ideas from Ecological Economics] find an environment more conducive to acceptance, either because of the importance that has been attributed to global environmental issues, or because of the perception that complex phenomena cannot be understood with a reductionist, mechanical and static scientific framework.

Thus, it can be inferred that Ecological Economics considers nature as a determining factor of the limits to the physical growth of the economic system. In this sense, Spash (2020) argues that it is contrary to the rule of economic growth tending to infinity and to the belief in human progress through competition, innovation, technology, and capital accumulation, which are central elements of neoclassical economics. Currently, a development model is required based on the need for conscious production, which guarantees the care of all forms of life on the planet, to generate social benefits for humanity.

From Economic Growth to Sustainable Development

Initially, the classical view of economics, represented by authors such as Smith (1988 [1776]), presented liberalism as a way to improve the standard of living, or well-being, of the population, based on economic growth and utilitarian and selfish individualism, however, socially beneficent, in the view of the adherents of this economic school. Smith's theory (1988 [1776]) assumed that the market should be considered the self-regulating and self-correcting

element of imbalances, singularly, emphasizing the idea of the minimal state as a means of attacking the mercantilist economic policy promoted by absolutists monarchs, in addition to contesting the naturalistic view defended by physiocracy.

More than a century later, Schumpeter (1911) discussed economic development, arguing that capitalism is intrinsically dynamic and growth oriented. Again, "economic growth" and "development" were treated synonymously, demonstrating the traditional orientation of the economy.

Schumpeterian theory argues that technological innovation and the revolutions it fosters, which result in new patterns of production and consumption, play a central role in the growth dynamics of the economy. Thus, the central element in the so-called "creative destruction" is the entrepreneur. In this process, it is up to the State to build institutions that break the vicious circle that prevents the expansion of innovative practices, which are part of the history of each country, region or territory.

With the passage of time, the market logic proved to be flawed, until it was overcome by Keynes (1936), who pointed out government intervention in the economy to sustain and regulate economic activity, while increasing people's quality of life, something that fundamentally changed the theory and practice of macroeconomics. His most prominent contribution came after the Great Depression of 1929, when he proposed solutions involving the active participation of states in containing crises, which could not be overcome based on market mechanisms alone, thus allowing the stabilization of the economy in the short term.

However, Georgescu-Roegen (2013, p. 73) argues that "when consulting the economic periodicals of the English-speaking world prior to 1950, [...] You don't find many references to 'economic development.'" As points of change from a mechanistic ideology exclusively focused on growth to development, there are, in addition to the Ecological Economics, other economic theories and practices.

In Latin America, ECLAC developmentalism stands out, alluding to the Economic Commission

for Latin America and the Caribbean (ECLAC). Among ECLAC's thinkers, the Paraíba economist Celso Furtado stands out. In his critique of the dominant model, the author expressed concern about the impact on the physical environment of a decision-making system whose ultimate objectives are to satisfy private interests" (Furtado, 1974, p. 14). His work is pioneering in several aspects, as observed by Cavalcanti (2003), who highlights his ability to raise "non-common" issues for the time. However, given his background and the school of thought to which he belonged, Furtado understood that import-substituting industrialization figured as a viable alternative for the development of peripheral economies, without major concerns about environmental sustainability.

In the business environment, the idea that sustainability has environmental, social and economic dimensions has gained strength, as set out in the Triple Bottom Line, created by Elkington (1994). However, in addition to the three dimensions mentioned, when envisioning a sustainable development model, new pillars are needed, such as: cultural, domestic policy, foreign and institutional policy (Sachs, 2000).

Thus, the most prominent contribution to expanding the dimensions of sustainable development is in the 2030 Agenda for Sustainable Development, which lists 17 goals and 169 targets that should be achieved by the year 2030, distributed in five interrelated categories: People, Planet, Prosperity, Peace and Partnerships (United Nations Brazil, 2015).

The Sustainable Development Goals have been shown below, in Figure 1, which shows the SDG icons translated into Portuguese.

Figure 1
Frame of official icons of the Sustainable Development Goals (SDGs)



Source: United Nations Brazil (2015).

This global agenda has allowed not only an increase in per capita income, but also in the quality of life, equality among human beings and the preservation of ecosystems. The 2030 Agenda works as an important guideline for public policies across the planet, being internalized in the form of laws and in governmental, business and civil society initiatives. As Brazil is a signatory, along with the other 192 UN member states, its proposals must be translated into concrete actions.

Moreover, in addition to the suppression of needs, authors such as Sen (2010) add substantive freedoms as fundamental for full development, which complement their meaning as a generator of opportunities for all people. Its field of action goes beyond the basic dimensions of sustainability, generally related to the satisfaction of needs, disregarding the personal aspirations of everyone.

As previously seen, Ecological Economics is based on degrowth as a solution so that human action does not run into the limits of the planet and so that the inherent vocation of capitalism to permanent crisis does not harm the lives of human beings. In this context, although sustainable development does not directly challenge the capitalist system, Cavalcanti (2010, p. 57) points out the link between Ecological Economics and sustainable development when he writes that.

Ecological economists – appealing to principles of physics and ecology – consider the size of the load to be fundamental. In the conception of a possible environmental macroeconomy, carrying capacity, therefore, plays a key role. It is what will define the scope of sustainable development.

Seeking to reconcile the satisfaction of human needs and aspirations and respect for the environment, new opportunities are envisioned, such as the emergence of startups using technologies to achieve the UN Sustainable Development Goals, in the sense of a "Planetary Evolution" (Conti & Vieira, 2020, p. 20), an experience necessary to spread other forms of production, consumption, and social relationships.

Thus, the literature points to a significant conceptual transformation: from economic growth

to a process of expansion of individual freedoms and promotion of opportunities, to satisfy the needs of current and future generations, generating opportunities for them, without this going beyond the biophysical limits of the planet.

Public Policies for Local and Regional Development

It should be noted that public policies are not formulated and implemented only by the public administration. In addition to governments, companies, third sector organizations, foundations, institutes, universities, religious institutions, unions, associations, and individuals without formal organization can influence this complex game of interests that permeate the formation of the governmental agenda (Souza, 2006). Generally, when the State fails to act, deliberately or not, the other players act, providing an opportunity for the population to address the issue.

For example, the water crisis that occurred in the cities that compose the Macro metropolis of São Paulo in 2014 totaled more than 30 million inhabitants directly or indirectly affected. Jacobi et al. (2015, p. 33) state that a mismatch between government institutions in relation to planning, transparency and information, and the "scenario of uncertainties, distrust and inability on the part of public managers to provide concrete answers to society about the water crisis" forced civil society to act. As a result, the Alliance for Water was created in October 2014, which emerged to address the water crisis in São Paulo and build a "New Culture of Water Care" in Brazil.

Therefore, it creates the possibility that other actors will be included, being able to perform key functions, such as resisting real estate speculation and the financial contributions of large corporations that do not present robust sustainability plans, as well as mobilizing society (Conti et al. 2019; Emerson et al., 2012).

In this sense, Guevara and Silva (2020, p. 16) expose the creation of the Sustainability Acceleration Program (PAS), a twinned initiative at the Pontifical Catholic University of São Paulo (PUC-SP) that "aimed to Promote a Culture of

Sustainability from the University" using five steps: 1. Create a bank of good sustainability practices; 2. Implement a sustainability portal; 3. Develop a permanent communication program on the subject; 4. Organise an annual best practice competition; 5. Promote a network/movement for sustainability. The opposition to the Growth Acceleration Program (PAC), a public policy formulated and implemented by the Federal Government between 2007 and 2010, shows a possibility of confluence between this type of initiative and the Ecological Economics and other important aspects of contestation of capitalism.

In addition, when it comes to public policies for sustainable local development, the action of local governments is essential (Conti et al., 2019; Dowbor, 2017b). Although each community around the planet must find its own local strategy for sustainability-oriented development in its most varied dimensions, good practices are found in Brazil and can be replicated or adapted to different contexts.

One of them is the Sustainable Public Management Guide (GPS in Portuguese), launched by *Rede Nossa São Paulo* and the Sustainable Cities Program. This platform proposes the following thematic axes for Municipal Strategic Planning: 1) governance; 2) common natural goods; 3) equity, social justice and a culture of peace; 4) local management for sustainability; 5) urban planning and design; 6) culture for sustainability; 7) education for sustainability and quality of life; 8) local, dynamic, creative and sustainable economy; 9) responsible consumption and lifestyle choices; 10) better mobility, less traffic; 11) local action for health and; 12) from the local to the global (GPS GUIDE, 2016).

GPS is based on the above-mentioned necessary differentiation between growth, which is aimed exclusively at increasing the size of an economy, and is therefore quantitative, and development, which is characterized by transformation, by qualitative improvement. It follows the definition of sustainable development constructed and disseminated in the major global conferences that have focused on the subject and, once again, reinforces the criticism present in Ecological Economics, which expresses the

impossibility of sustainable growth, as described by Daly (2004).

In addition, the GPS indicates that the municipal planning process should take place in 5 steps: 1) organized information; 2) diagnosis based on indicators; 3) prioritization; 4) vision of the future; 5) goal plan (Guevara & Silva, 2020). In profoundly unequal realities, such as large Latin American cities, which present substantial challenges to be overcome due to serious governance problems, the option for sustainable development, to question and overcome the traditional economic model, becomes urgent. Above all, it is perfectly feasible, even if it implies a profound reorientation of praxis in local and regional administration.

In turn, Barbi (2014) sheds light on the importance of municipalities in the sustainable development agenda by revealing that cities, as they are the center of human activities that most favor the worsening of climate change, even though they are part of the problem, at the same time, are seen as part of the solution. These subnational entities were the first to respond to the challenge of climate change, such as in the elaboration of laws with targets to reduce the emission of greenhouse gases. Or in the Global Covenant of Mayors for Climate and Energy, which brings together more than 70 Brazilian cities and countless others around the world with the aim of empowering local actions for climate and renewable energy.

An example of a municipality that acted in this direction was São Paulo, through significant changes in legislation, thus contributing to mitigate the impacts of the macro-metropolis on climate change at a global level. Even so, there are issues that must be increased, culminating in the elaboration of public policies capable of internalizing the aspirations of sustainable development in specific and structured actions. Something that is moving in this direction is Bill 01-00107/2019, which establishes the Municipal Solar Energy Policy, in order to encourage the energy transition in companies, residences and public buildings built in the municipality of São Paulo, after the sanction of the PL (São Paulo, 2019).

Also, the city of Porto Alegre, in Rio Grande do Sul, has had an Incentive Program for the Use of Solar Energy in Buildings for more than ten years, sanctioned by Complementary Law Project 4117/06. The PLC, which includes photovoltaic solar energy, is awaiting regulation, something that may delay the benefits arising from the adoption, through legislation, of sustainable practices, but which represents an important step in the popularization of the generation of clean and affordable energy in large cities (Porto Alegre, 2006).

Ribeiro et al. (2019) highlight the creation of the technical standard ABNT NBR ISO 37120 and the indicators from the Sustainable Development Goals for the analysis of cities, with special emphasis on SDG 11, to help policy makers make more assertive decisions, improving the quality of life of people impacted by the policies formulated and implemented.

Finally, another mechanism that promotes local development used in medium and large Brazilian cities and is oriented towards sustainable development is the Master Plan, which acts as part of the legal framework for urban planning, alongside laws such as environmental licensing and neighborhood impact studies. Bartalini and Bucalem (2020, p. 45), however, point out that

The effective application of these instruments and, consequently, the achievement of concrete positive results, comes up against the absence of development models that are truly effective and adequate to the different situations and realities of Brazilian cities.

All the public policy tools listed, which are aimed at sustainable local development, must be deployed in communities around the world to achieve success and positive impact globally. In the next topic, the horizons of action were explored.

Horizons of Action

Emphasizing the role of Ecological Economics as a necessary instrument for understanding the limits of the planet and for achieving the goals and

targets of the 2030 Agenda, Melgar-Melgar and Hall (2020, p. 1) point out that

In the 21st century, the most complex challenges facing humanity will be biophysical, including climate change, transition to a renewable energy base, limits to growth, plastic pollution, urbanization, peak oil (and peak everything), phosphorus scarcity, nutrient pollution, nuclear power, waste, ocean acidification, overfishing, deforestation, and biodiversity loss, among many others.

Responding to the complexity of these demands, Blignaut and Aronson (2020, p. 8) point out that only a change in culture – to universally internalize the concept of caring for the planet, through interdisciplinary dialogue and a systemic review – will be able to generate positive results. For this reason, they point out:

For the next 30 years, ecological economics, ecological engineering, ecological restoration, and related disciplines and professions must work together, synergistically, to blaze trails and build healing pathways, fueled by the restoration narratives of an emerging culture of restoration.

Söderbaum (2017) states that alternative currents such as Ecological Economics encounter resistance in society, including in universities, and may compromise the achievement of sustainable development. Therefore, it is emphasized the need for a reorientation that permeates the teaching, research and dissemination of economic sciences in government entities, companies, third sector organizations and the media, in order to deconstruct the idea that the economy would be solely linked to money (monetary or financial economics), breaking with the neoclassical paradigm and bringing together ethics and commitment to people and the planet to this science.

This transformation necessarily involves the strengthening of democracy. Perhaps the most significant contribution to this approach comes

from Sen (2010, p. 18), who conditions development to the expansion of substantive freedoms, as well as: "economic opportunities, political freedoms, social powers, and enabling conditions, such as good health, basic education, and encouragement and improvement of initiatives." The author points out that democracy is a determining factor for freedoms and opportunities to be guaranteed, when he writes that "no collective famine has ever occurred, in the entire history of the world, in an effective democracy" (Sen, 2010, p. 30-31). Or when points out that, even if there is technological progress and economic growth, the civil, economic and political freedoms, inherent to full democracies, emerge as fundamental for integral development.

Consonantly, Latouche (2009, p. 42), when addressing subnational strategies to achieve the "virtuous circle" of degrowth, argues in favor of the invention of a local ecological democracy, as opposed to peripheralization; the recovery of local economic autonomy, which implies food, economic and financial self-sufficiency; and the promotion of dwindling local initiatives.

Theis (2011, p. 29) corroborates this statement by pointing out that "the metamorphosis that takes place in the field of development is closely related to the ideological climate and the historical conditions prevailing in each era", considering that "development is not something that can be tested in a laboratory disconnected from time and space".

In addition, Neiman et al. (2020, p. 17) point out that "the need for governance emerges, therefore, as a space for expanding democracy and the 'capacity to govern', improving decision-making processes, the implementation of policies and, even more, promoting their transversal integration".

By relating the strengthening of collaborative and participatory governance to sustainable development, Conti et al. (2019) point out the benefits generated for the quality of life and the environment, something capable of even reorienting the economic system, in order to build a regenerative, shared and circular economy, and allowing a more effective fight against climate change, extreme poverty and inequality, for example. This contestation of the economic

mainstream is also present at the heart of Ecological Economics, evidencing an undoubted opportunity for confluence and improvement.

Finally, the need for a confluence between Ecological Economics, global agendas for sustainable development and local and regional development proposals is ratified. Therefore, it can be inferred that the ideas that refute the dominant economic model can positively and jointly influence the incremental construction of sustainable development. That is, starting from the cities and urban agglomerations spread in Brazil and other countries, to fulfill one of the premises of the 2030 Agenda, which advocates global transformation based on localized actions.

Still, Theis (2011, p. 30) points out:

For those who engage in the promotion of a socially inclusive and ecologically prudent territorial development, supported by the radicalization of democracy at all scales, it is worth warning that in the middle of the road there is the stone of neoliberal globalization.

Therefore, the author understands that, to overcome this barrier, there is a need to create "modalities of regulation at national and supranational levels and cultivate non-aggressive global relations" (Theis, 2011, p. 30). Assuming that Ecological Economics advocates in a conflicting field that disrupts a traditional model (Soderbaum, 2017), this particularity must be considered to successfully seal its confluence with local development.

Final Considerations

The conflicts and vested interests in defining impractical patterns of growth require the understanding that the pressures imposed by economic activity on ecosystems can jeopardize life on Earth. Thus, alternatives to "growthism" should permeate the performance of the public administration and the complex list of actors that influence development strategies, especially local political articulations.

In view of this, initially, the bibliography shed light on the relationship between Ecological Economics and sustainable development, thus allowing us to glimpse horizons of action that respond to the new demands imposed in this century. From Ecological Economics, the contestation of the dominant model of production, consumption and social and economic organization is taken advantage of. Sustainable development comes the possibility of satisfying people's needs, giving them equality, substantive freedoms and opportunities, without implying a depletion or compromise of the Earth's natural resources.

Through this contribution, the article aimed to analyze how Ecological Economics and international agendas for sustainable development can positively influence the reorientation of public policies for local development. Taking the Brazilian reality as a starting point for the analysis, many examples and a vast horizon of actions were revealed that would be capable of mixing content from the Ecological Economics and global agendas for sustainable development, promoting subnational initiatives that seek to reduce inequalities, people's well-being and respect for the environment, characterizing new strategies for sustainable local development.

Therefore, the possibility of harmonization between theories that were born in a similar context and that carry complementary aspirations was highlighted, as well as their application in public policies. The success of humanity in the coming years depends on the construction of communities and cities oriented towards sustainable development.

In relation to future studies, research should be carried out involving public managers and also interest groups that influence the elaboration of public development policies, such as third sector organizations, foundations, institutes, universities, religious institutions, unions, among others.

Finally, the results must be considered in light of their limitations. Firstly, the experiences of large Brazilian municipalities such as São Paulo and Porto Alegre were reported, and the discussion should be expanded to other Brazilian municipalities. Second, the results may not be generalizable to all municipalities due to sample

restrictions. Thirdly, the results involve a multiplicity of documents and reports that do not rely on a standardized methodology, and therefore may suffer from subjectivity. New studies are needed based on different documents and databases.

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