

The Sociology of Development and Sustainability: A Summary of the Theoretical Framework

Eduardo Vítor Rodrigues
University of Porto

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This article discusses different models for analyzing the social processes of economic growth and development. First, it examines the origins of the debate in the context of the emergence of the social sciences. It discusses an alternative approach based on a quantitative perspective and strictly productivist concerns. Modernization Theory and the influences of classical economics are central to the problematization of this conceptual framework. Next, the limitations of the concept of growth and the debate on Dependency Theory, originating in Latin America, are discussed. It is within this debate and various social and theoretical movements that the concept of sustainability takes root, highlighting its social and sociological dimensions, rather than its original association with the strictly environmental and ecological domains. Finally, we analyze the main guiding principles underpinning the emergence of the sociology of sustainability as a specific branch of sociology. As this is not the setting for a lengthy, more in-depth theoretical discussion, we propose an analytical synthesis capable of fostering subsequent, more robust explorations.

Keywords: sustainability, sociology, development, public policies, social change, international relations

INTRODUCTION

The topic of sustainability has been gaining increasing prominence in public, political, and academic debates, while also emerging as a central theme of social movements in their various forms. This plurality has hindered the methodological and epistemological coherence of the approach, relativizing its standing within the context of scientific debate, particularly in sociology.

The question starts out as a basic one: can industrial society - a society of abundance and rapid progress - regress? Can it collapse? Or is this debate merely a “polar bear issue,” with ever-shrinking ice caps, yet one that does not affect our daily Western lives? Or, do we simply assume we can do nothing to counter the current trend? Given that this is a global and planetary

issue, can an individual, a small group, or a community do anything? Or is it merely a circumstantial social issue, limited to a specific and transitory time?

One of the many examples of the finite nature of resources and the capacity for self-destruction of a wealthy civilization is Easter Island, or *Rapa Nui*, as it is known by its native inhabitants. This Pacific island achieved a high level of social, religious, and economic organization, experiencing a period of prosperity and technological peak, with productive agriculture, advanced engineering, and a structured society. This peak coexisted with progressive deforestation, continuous soil erosion, and the gradual disappearance of many ecosystems. The felling of trees for the transport of *the moai* (giant stone statues) was carried out on a large scale; internal wars between rival clans intensified; and famine, conflict, and the flight of people to other destinations led to an island that once had more than 15,000 inhabitants ending up, with fewer than 200 people by the end of the 19th century (Sirigati, 2009). Easter Island is often cited as an example of the finitude of resources, but also of resilience and adaptation. Today, with a population of about 8,000, it is a UNESCO World Heritage Site and a symbol of the planet's limits and the potential reversibility of progress.

The relationship between growth and wealth, on the one hand, and nature and the environment, on the other, is a subject of philosophical discussion that predates the emergence of the social sciences by far. In Antiquity, these approaches made important contributions to how we still understand human beings and their relationships with the ecosystems of which they are a part.

The notion of "*panta rhei*" (everything flows), proposed by Heraclitus, views nature as dynamic and alive, in constant equilibrium, which humans and societies must respect. Nature is placed at the center of philosophical thought, grounded in reflections on its limits and the fundamental balance between society and the environment.

Taking a less "naturalistic" approach, Socrates engages in the debate on ethics and the moral responsibility of human actions in the relationship between humans and nature. It is within this framework that Plato's dialogue, *Critias*, addresses the environmental degradation of Attica, questioning the limits of unregulated growth and humanity's role in environmental degradation across territories. It is, however, Aristotle who first proposed the concept of sustainable planning, arguing that cities and their growth must be organized and adapted to the capacity of ecosystems and their balances.

It is in this debate that the link between population and economic growth, and the balanced use of natural resources, is established, anticipating the idea of the limits of resources and nature, as we shall see Thomas Malthus explain.

What is certain is that numerous references show that, long before structured debates on sustainability, the themes of growth, its limits, and the balance of nature and ecosystems were already central to philosophical discussions.

These debates later resurfaced with authors such as T. Malthus, who revisited the relationship between irrational growth and the limits of resource exploitation, as well as in documents such as the Meadows Report (1972, *The Limits to Growth*), which predicted disruptions in the balance of ecosystems if resource exploitation continued at an unchecked and irrational pace.

Despite the structured and scientific nature of current debates, the foundations of approaches to growth and sustainability have deep, ancient philosophical roots that continue to shape much of the debate.

THE DISCUSSION OF GROWTH

The origins of structured theoretical debates on the model of social and economic organization in Western societies date back to the very origins of the social sciences.

Conceived as a fundamentally quantitative, economic debate - and, for that very reason, more apparently safer in epistemological terms (in an era marked by positivism) - its approach seemed to be confined to the economy and its operating mechanisms, with other social sciences undertaking some analyses of potential limited negative externalities (motivation, quality of work, inequalities, among others).

The analysis focused on "growth" or "economic growth" is a measurable sign of societal evolution and progress, as the original terms put it.

These words or expressions, when transformed into concepts, have a historical context marked by the Industrial Revolution and the consequent increase in production and wealth. This period was characterized by the combination of a drastic change in production technologies (the steam engine being a central element) with the accumulation of capital that fostered increased investment. It should be noted that the approach is limited to growth understood as an effective increase in wealth, not to a discussion of its distribution. The analytical framework focused on strategies to increase production and productivity, promote capital accumulation, and stimulate market expansion, in accordance with the paradigms of Classical Economics of the 18th and 19th centuries.

The framework of Classical Economics includes the works of Adam Smith, J. S. Mill, and D. Ricardo. Growth was viewed as the normal historical process of the new mode of social and economic organization: capitalism. The idea of a national and international free market, the accumulation of capital, and the mechanistic, linear organization of labor translated not only into theoretical approaches but also into new forms of labor organization, embodied in the Fordist and Taylorist models (Drouin, 2014). Constant, repetitive, and sequential work tasks ensured greater productivity in an industry whose fundamental aims were to reduce prices and increase production to fuel market expansion, both within and beyond national borders (the beginning of global markets, perhaps even of globalization).

However, a direct, causal link between wealth and prosperity soon revealed its own limitations. The sharp rise in urban poverty, linked to unemployment (as well as low wage employment), meager wages, the exploitation of a workforce lacking rights or status, the concentration of capital in a small group of the wealthy, urban conflict, and unsanitary living conditions in *the slums* of major cities - all of this and much more reinforced the need for a critical view of the structural contradictions of the classical liberal model, which were structurally deeper and more complex than mere isolated externalities, as observed by liberals (Drouin, 2014).

In fact, the liberal approach was logically sound: the productivist model, which generated wealth and growth, was structurally and organizationally complex; its contradictions were fundamentally rooted in the individual, in their performance or commitment, with these contradictions defined as externalities rather than as dystopian elements constitutive of the model itself and inherent to it. In fact, one can see some strong faith mixed in...

THE ORIGINAL FRAMEWORK OF THE THEORETICAL DEBATE

Cities grew in step with the urban concentration of people and groups, the decline of agriculture, and the massification of production and consumption. However, this urban growth also brought the model's internal contradictions into sharper social focus. Growing social inequalities, urban poverty, and the exploitation of labor in its many forms (long hours, low wages, lack of social rights, child labor, and substandard living conditions) inspired critical debate regarding the liberal capitalist model and its contradictions, with central figures including the classics of sociology, namely K. Marx, E. Durkheim, and M. Weber. These authors (and others) and their perspectives contributed to a shift away from the concept of growth toward a more integrated approach to development, or social development, capable of incorporating analyses of qualitative, human, organizational, and structural dimensions.

Émile Durkheim analyzed the forms of division of labor in modern societies, which led to the emergence of injustices, conflicts, and social tensions.

Durkheim's approach offers an essential sociological perspective for understanding the social impacts of capitalism and developing proposals for sustainability. Durkheim analyzed the effects of modernity on social cohesion, collective morality, and individual well-being aspects, central to any project for a sustainable society. The author viewed the division of labor as a potentially pathological factor, because it generates inequality, excessive competition, and social isolation, undermining a model of organic solidarity (based on interdependence) that can be obliterated in the absence of institutions that promote shared values.

Durkheim's analysis offers sociological tools for envisioning a sustainable society, beginning with the defense of a society of close bonds and shared values, grounded in a model of organic and interdependent

solidarity, and in the promotion of the reconstruction of social bonds, the strengthening of all kind of institutions, and a (new) collective ethic.

Karl Marx's analysis was based on a critique of the capitalist model of organization, which generates injustices and social inequalities while simultaneously legitimizing itself as a structure through complex processes of alienation generated by the system itself, serving as its element of legitimation and perpetuation (Garcia, 2019).

Marx's approach is based on a historical, economic, and philosophical analysis of the social relations of production and wealth creation, focusing on the exploitation of labor and the accumulation of capital. The Marxist critique of capitalism is profound and multifaceted, ranging from the alienation of the worker to the internal contradictions of the system which, according to Marx, would lead to its overcoming.

For Marx, social dynamics are not shaped by a logic of integrated development grounded in cohesion, but rather by an antagonistic perspective on interests and ends, aimed at reinforcing disparities in the ownership of capital and wealth, thereby justifying the potential for class struggle. It is an internal contradiction of the system and, at the same time, a factor in its reinforcement and perpetuation, as well as in its possible overcoming.

Now, this economic context tends to exacerbate a progressive environmental crisis, stemming from the inequitable logic of linear growth and the infinite exploitation of resources in favor of capital - a model that conflicts with ecological limits and the social sustainability of resources at the scale of cities and the planet. There are, therefore, multiple approaches to challenging capitalism and affirming social and environmental sustainability inspired by Karl Marx.

In fact, the capitalist model does not merely exploit labor. It also exploits natural resources and raw materials obtained unjustly within a context of power relations between dominant and subordinate states, countries or regions, thereby reinforcing mechanisms of domination on a global scale as well.

Forms of resistance to the prevailing model - which is sufficiently structured and enduring - involve the role of social movements, as also emphasized by Marcuse and Habermas (to whom we will return), with a primary focus on youth, environmental, and feminist movements. Thus, Marxist critique makes a fundamental contribution to understanding the mechanisms the economic system mobilizes to structure social relations and how these can be transformed in the name of sustainability, social justice, and cohesion.

Critics of the current model link capitalism to the ecological crisis due to the unlimited exploitation of resources, driven solely by the aim of greater profits, even in an unregulated and irrational manner.

Now, dependent development (to use an expression inspired by Marx, though well after his time) stems from the unequal forms of capitalist expansion, which exploit the peripheries (countries and populations) to sustain the center (rich, capitalist countries). This is reflected in growing environmental injustice ("*capitalist production disrupts the metabolism between man and the earth,*" *Capital*, Book III), leading to poor communities suffering more from pollution, deforestation, and climate change, while they are contributing in a contradictory and unequal manner to the well-being of the countries at the center (Piketty, 2014). In other words, although everyone is affected by climate change and shifts in the relationship between the economy and the environment, this vulnerability is asymmetrical, as it impacts different social groups and regions in very different ways, reproducing social conditions, and therefore inequalities.

Marx inspired numerous approaches that sought to understand the social phenomena of capitalism, long after the author's lifetime and analytical work. While we cannot elaborate on them here, we highlight the contributions of John Bellamy Foster, author of *Marx's Ecology*, who emphasizes how Marx anticipated ecological concerns and proposes the concept of an "ecological revolution"; Jason W. Moore, who proposes the concept of the "Capitalocene" instead of the "Anthropocene" to show that the ecological crisis is caused by capitalism, not by humanity in general (Moore, 2016); and Michael Löwy, who proposes and advocates for ecosocialism as an alternative to destructive capitalism. It is also within this debate that Naomi Klein's contributions fit, linking the structural contradictions of capitalism to the emergence of the current climate crisis (Klein, 2018).

Max Weber, in a similar framework, critically analyzed the rationalization of the economy and bureaucratization as elements of a broader structural process of modernization and modernity. For the author, modernity is built upon an instrumental rationality that organizes the state, the economy, and

institutions according to principles of efficiency, calculation, and predictability. This rationality underpinned scientific and technological progress and industrialization, which significantly expanded human productive capacity (Drouin, 2019). However, Weber asserts that this process generates the so-called “iron cage” - a system in which individuals and organizations are trapped within a technical and bureaucratic logic that hinders paradigm shifts. This idea is crucial to the debate on sustainability, as it highlights the institutional and cultural obstacles to ecological transition: modern society tends to prioritize economic efficiency and growth, which complicates the incorporation of social and ecological values.

However, Weber also engages with this debate by emphasizing the importance of (rational) legitimacy and political action. According to the author, forms of domination and authority shape the capacity for collective action, becoming instruments of domination. The transition to sustainable development models, therefore, requires not only technological innovation, but also institutional transformation and the social legitimization of new economic, political, and environmental practices. Sustainability, in confronting established economic interests and cultural norms, also depends on the construction of a new political legitimacy for models of production and consumption. In this vein, for the author, development requires, not only technical solutions, but also profound cultural, ethical, and organizational transformations in contemporary societies.

This entire debate must not overlook the demographic reality of societies at that time. Rapid population growth boosted production and consumption potential, but it also posed new threats, which Thomas Malthus explained through his law of geometric population growth, set against the merely arithmetic growth of resources. However, much later, this thesis was profoundly challenged by movements such as the Green Revolution, which took place in the three decades following the end of World War II and established itself through the introduction of new agricultural models and practices in Mexico and, later, in India and Pakistan, under the leadership of Norman Borlaug, demonstrating the potential for equally geometric growth in food production and thus potentially breaking with Malthusian determinism.

This brief summary of critiques of the capitalist model and its conceptual foundations does not end there. Even today, the contradictions articulated then remain evident, perhaps more intense in some areas, but equally structural and legitimized by the dominant discourse.

STAGES OF DEVELOPMENT AND MODERNIZATION THEORY

The liberal model posits that growth is synonymous with civilization and technical and social progress, and with the evolution and modernization of formerly traditional societies (Garcia, 2019).

This approach entails geopolitical consequences and epistemological repercussions. The focus on the historical example of growth in Western capitalist societies seems to embody an ethnocentric (Western-centric or Eurocentric) view, according to which the West is the universal model and benchmark for development and progress to be followed globally.

The early 20th century is also marked by the debate initiated by Werner Sombart and Joseph Schumpeter regarding rationalization and models of modernization. For these authors, technical progress possesses immense creative power - indeed, “creative destruction” - arising from processes of innovation and wealth creation that supplant traditional activities, always viewed as entrepreneurial and wealth-generating.

This analysis has historical and political implications. Within a historical framework of colonialism, the classical perspective tends to legitimize colonial domination and even confer historical significance on it (Garcia, 2019): colonialism appears less as exploitation and more as an impetus or aid to the *take-off* of development in the image of the West, which underdeveloped countries should emulate.

From a perspective that is equally attuned to the importance of growth markets, yet without downplaying the role of investment driven by public structures - namely by the state - John M. Keynes acknowledges the potential of government-led investment, particularly in the areas of essential basic infrastructure, education, and technological advancements (Neto, 2024), both to strengthen economic growth potential and to uphold certain principles of social cohesion.

This perspective becomes central to the defense of the selective yet structural nature of public investment and of the state's role in economic activity. The author thus places quality of life and social stability at the heart of political action, rather than merely the goal of maximizing profit, arguing that high productivity should also lead to a reduction in working hours, with society focusing more on well-being, the (re)distribution of resources, and culture (see, for example, Keynes, J. M., *Economic Possibilities for Our Grandchildren*, in John Maynard Keynes (1963). *Essays in Persuasion*, New York: W.W. Norton & Co.). Simon Kuznets' contributions are fundamental to structuring an understanding of the relationships between economic growth, social inequalities, and the environment.

The analysis explains the relationships between economic growth and inequalities. While, in an early stage of growth, we can observe an unequal distribution of the benefits of that growth (due to various factors, such as territorial inequality and the need to concentrate resources for investment, among others), thereby deepening injustices and negatively impacting the system, the continuation of this process tends to balance itself out (to self-regulate), resulting from the progressive expansion of education, higher wages, and the strengthening of public policies. Thus, growth is viewed as a dynamic and evolving process, moving in a positive and socially balanced direction, albeit over the long term. This analysis of the inverted U-shaped relationship, as depicted in the Kuznets Environmental Curve, holds that environmental impacts tend to decrease as societies become richer and more advanced.

However, although influential, this approach has significant limitations: not all countries follow this developmentalist pattern, many environmental impacts are simply externalized, and global problems (such as climate change) are not automatically reversed by economic growth. Furthermore, the theory ignores irreversible ecological limits and assumes markets have the capacity for automatic correction (calibration), which is difficult to demonstrate in concrete historical contexts.

The main limitation we find in Kuznets' work concerns his very specific analysis of cases in the West and in capitalist countries. However, many of the repercussions of unchecked economic growth are not observed merely on a local or national scale, but also on a global scale. Pollution and waste can be exported, creating an apparent improvement in the developmental conditions of a country or region, an illusion created solely by the transfer of its consequences to other regions, typically outside the ongoing growth process. On the other hand, emissions are not strictly local but have taken on global dimensions, "distributing" the impacts of their actions in a manner convenient for the emitting countries.

Furthermore, historical analysis has shown that, despite increased wealth and some improvement in people's quality of life, various socio-environmental impacts continue to rise, even with recent forms of pollution externalization and certain negative impacts on the ecosystem, distorting the curve that had pointed toward an effective reduction in impacts.

Economists of the long-wave theory, such as Kondratieff and, later, E. Mandel, observe the structural and enduring nature of capitalist models, based on continuous pressure on the environment and natural resources (Drouin, 2014), resulting from the model of increasing production and consumption, which treats ecological limits as secondary and subordinate to economic growth and wealth creation. Indeed, following Mandel, technology and innovation do not, by themselves, guarantee ecosystemic balance and sustainability, and may even reinforce imbalances. The intensive extraction of resources, the relentless pursuit of profits, and the uncritical maximization of resource exploitation merely ensure that technology serves as yet another factor reinforcing productivism and profit maximization, rather than as an element facilitating balance with nature.

Thus, the analysis rejects the view that social and environmental improvements resulting from economic growth are automatic or spontaneous. On the contrary, it acknowledges the social and ecological contradictions of the prevailing (capitalist) growth model, noting that, for balance to be possible, deliberate political and institutional action, structural changes, and a critical role for society, education, and organized people are required.

Mandel's perspectives on the sustainability debate center on his structural critique of capitalism and the logic of unlimited growth, showing that each wave of economic expansion is associated with an intensification of natural resource use and increasingly severe ecological contradictions. For him, sustainability is not an automatic result of technological progress, but a political choice that requires

democratic planning, collective action, productive reorganization, and respect for ecological limits - which often clash with the prevailing growth model. Thus, Mandel anticipates many of the current dilemmas of sustainable development and the environment by positing that the environmental crisis is rooted in the very dynamics of capitalist accumulation, rather than merely an externality.

One of the most significant contributions to the current debate comes from the aforementioned Austro-American economist Joseph Schumpeter. Schumpeter's contributions involve understanding the dynamics of economic development through innovation, entrepreneurship, and the process of "creative destruction" (Aghion, 2021), a concept previously articulated by Marx (*schöpferische Zerstörung*).

A fundamental concept introduced by Schumpeter is that of "creative destruction," a process by which new technologies replace old technologies and methods of production, (re)organizing the economic structure and reinforcing growth, in a form of social Darwinism, in which capitalism destroys non-innovative and non-competitive firms, allowing those that innovate and produce competitively to emerge (Aghion, 2021).

It is in this vein that, as early as the 20th century, Walt W. Rostow introduced an approach grounded in historicity and relativized the concept of growth at the expense of the development process. In his book *"The Stages of Economic Growth"*, Rostow outlines a historical developmentalist process based on five stages (the theory of stages of growth), proposing a universal model of development that all countries would follow, in the image of Western societies and on the path to industrialization. Once again, this approach incorporates the controversial logic of *take-off* for development driven by the most advanced countries, in both colonial and non-colonial contexts (a topic to which we will return).

Walt W. Rostow's analysis of the stages of economic growth was one of the most significant theoretical contributions to the analysis of economic development in the 20th century. It is a linear model of stages that all economies go through at different times (depending on their historical context) in the transition from traditional to modern and industrialized societies.

Following Rostow, the economy of traditional society is based on subsistence agriculture, with little or no mechanization, rudimentary technology, and low productivity, typically centered on self-consumption or community consumption (Rostow, 1991). The social structure here is markedly rigid and hierarchical, with limited social mobility and no formal social policies.

The second historical stage begins with the emergence of agricultural mechanization, the mechanization of production processes, improvements in infrastructure supporting the economy (ports, roads, electrical infrastructure, etc.), and a progressive emphasis on education and certain basic social services.

The third stage, the *take-off* phase, is marked by a decisive push toward industrialization, driven by increased investment, the expansion of the productive sector, and higher productivity. This stage is also characterized by a marked exodus from the countryside and rural areas, driven by urbanization, with resulting social changes (higher levels of education, lifestyles shaped by work schedules, monetization of economic exchange, etc.).

The consolidation of this process occurs in the fourth stage, the maturity stage (*drive to maturity*). In this phase, industrial production tends to diversify, primarily through increased technological innovation and the expansion of markets beyond national borders. In this stage, emphasis is placed on the social dimension, quality of life, and a solid infrastructure in education, health services, and social support, among others. The economy is strengthened, along with the conviction that this economic growth will generate further improvements in the quality of life and social cohesion (Rostow, 1991).

This historical trajectory is completed in the fifth stage, the era of mass consumption. We are facing the final stage of development in Rostow's historical model. It is a consolidated stage of the capitalist model, in which large-scale production of more or less durable consumer goods and the strengthening of purchasing power prevail, creating a significant class of consumers whom we would now call the middle class. It is at this stage that the effective expansion of the service sector occurs, as a complementary process to the economy's shift toward the service sector (Rostow, 1991).

This model, although it may appear dynamic in its historical process, is clearly rigid and universalist; that is, it is applied in a similar manner across all social realities, based on European and North American examples. This conveys a degree of ethnocentrism rooted in the historical experience of those contexts,

undervaluing the multiplicity and multidimensionality of societies, their historical, social, and cultural specificities, and the extent to which these specificities influence the development process.

Historical analysis has increasingly revealed much of the mechanistic nature inherent in Rostow's analysis, but not so much the positive nature of economic and social relations on an international scale. In fact, colonialism often involves various forms and dynamics of structural domination that extend beyond and persist long after the colonial process itself. It is in this critique that the concept of neocolonialism, introduced by Dependency theorists, comes into play, referring to the various forms and dynamics of domination of poor (underdeveloped) countries by rich (developed) countries, which create relations of domination (political, economic, cultural) beyond the direct colonial relationship and its duration. The aim is to affirm the structural and enduring nature of colonial and neocolonial domination, of domination on an international scale, and, consequently, of the reproduction of development and underdevelopment.

Thus, Modernization theory has made a decisive contribution to the debate on growth and sustainability by proposing that development results from a linear process of economic, technological, and cultural transformation. This perspective has inspired policies of industrialization and technological modernization, based on the belief that technical progress can reconcile growth with environmental protection. However, its limitations become evident in the face of climate challenges, as the Modernization model seems to ignore ecological limits and reinforces the reproduction of inequalities on a global scale. Thus, although Modernization laid the groundwork for the debate on sustainability, it is necessary to critically rethink it, integrating social justice, environmental equity, and respect for the planet's limits.

APPROACHES OF DEPENDENCY THEORY

It is within this theoretical and historical framework that criticism of the mechanistic liberal model (regarding the functioning of societies and the economy) emerges. This critical approach emerged primarily in Latin America in the 1960s and thereafter, rejecting the mechanistic trajectory of underdeveloped countries toward development. Underdevelopment is understood not as a historical stage necessarily preceding development, but as a structural and reproductive condition (situation) of the economic and social relations between countries, and thus of underdevelopment itself.

This approach is deeply influenced by Marxism and by the questioning of the structural dynamics of capitalism and, later, of globalization. Among its leading figures are Fernando Henrique Cardoso, Celso Furtado, Raúl Prebisch, Immanuel Wallerstein, and Andre Gunder Frank, among others.

The basic principle of Wallerstein's approach rests on the structural and enduring nature of the economic, social, political, and cultural relations between the countries of the core (developed) and the periphery (underdeveloped), relations characterized by asymmetry, dependence, and exploitation. In fact, the discussion is not based on the idea of a "*take-off*" dynamic in which core countries drive the development of peripheral countries, but rather on the assertion that the continued development of core countries depends on the structural forms of domination and exploitation of peripheral countries by those same core countries. It is thus a matter of sustaining the unequal nature of trade, which tends to reinforce the domination of peripheral countries through the import of high-value industrial goods, while they export only low-value raw materials and natural resources in international economic exchange. This includes dependence on technology and investment, which reduces or limits political decision-making and the process of developmental emancipation.

The indigenous elites of peripheral countries also tend to reinforce inequalities, as they are often aligned with, placed in positions by, or supported by the interests of the core elites. The developmentalist alternatives proposed by Dependency theorists are, therefore, more of a break with the countries of the center than a matter of interdependence. They are based on a progressive autonomy of productive processes, more autonomous industrialization, and sustainable import-substitution mechanisms, thereby strengthening the potential of their domestic (national or regional) markets.

The "regionalization" of the political, economic, and financial organization of peripheral countries is a chosen path, currently taking shape in organizations such as Mercosur and the BRICS. Alongside this, the

necessary restructuring or reform of institutional and organizational structures adapts them to the changes inherent in different developmental processes.

It is true that, like liberal theory, there is an excess of historical determinism in the Dependency model. While liberal theory and its Rostowian version adopted an “optimistic” approach to the development process of peripheral countries, a certain “pessimistic” determinism is equally evident regarding the structural dependence of peripheral countries on the countries of the center.

Even if one cites examples of relative developmental success in formerly peripheral countries, such as the “Asian Tigers,” which underwent a developmental process within the main dynamics of the dominant capitalist model, it is clear that there is explanatory potential and significant potential for intervention, provided that attention is paid to the historical specificities of the model - which raises questions about the dynamics that reproduce (under)development and identifies mechanisms for overcoming them - and the economic and social specificities of the concrete contexts.

The 1960s provided the historical and theoretical conditions for questioning the stage-based theories of development. In fact, the colonial model did not appear to incorporate structural forms of take-off, while mechanisms of “dependent cooperation” or “dependent development” (Cardoso, 1979) were reinforced, even in countries that were not colonized in the historical sense of the term. Thus, North-South relations are viewed here as relations of power and domination rather than as relations of cooperation and interdependence. Moreover, the approach to cooperation appears merely as a discursive and legitimizing factor for the model of domination and the creation of mechanisms of dependence, present in colonialism but extending far beyond it.

More recently, authors from underdeveloped countries have sought to demonstrate that underdevelopment is not a historical, economic, or social backwardness, but rather a genuine, structural product of the domination of capitalist countries (countries of the center) over peripheral countries (Amin, 2006; Cardoso, 1979).

Dependency theory is, therefore, an innovative and critical approach to international economic relations, particularly the (unequal) terms of trade between developed countries (core countries) and developing countries (peripheral countries), emerging as a response to the analytical limitations (and ideological legitimization) of classical development theories, such as economic liberalism, but also to the analytical difficulties of the original Marxist approach.

From the perspective of dependency theorists, the world is organized into core countries (developed, industrialized) and peripheral countries (underdeveloped, raw material exporters). It is true that developed countries are, at the same time, the poorest countries in raw materials and natural resources, while the countries possessing these very raw materials and natural resources are poorer and dominated, not only within the framework of colonization, but also in the post-colonial context (Amin, 1980). The center dominates economically and technologically, while the periphery depends on the center for technology, capital, and markets (most often under conditions of subordination).

Even when there is growth in peripheral countries, this growth coexists with widening inequalities (developmental gaps) relative to the countries of the Center, generating a situation of structural dependence and impeding sustainable, self-determined development, even in a postcolonial context. Now, in line with Dependency Theory, if dependent growth produces and reinforces global inequalities, we are not dealing with a phased process but rather with a historical determinism that reproduces the condition of the periphery rather than overcoming it.

Thus, for this approach, it is important to move beyond the deterministic explanation that economic growth is the factor of prosperity, as well as the stage-based idea of a mimetic process for all nations, regardless of their sociocultural realities, distinguished only by the historical moment in which they are situated.

The Dependency approach was further developed by Andre Gunder Frank, along with the aforementioned Immanuel Wallerstein, in their contributions to world-system theory. Gunder Frank adopts a perspective closer to economic determinism, arguing that developmental backwardness is not an externality or a mere historical lag in the development process, but is intrinsically produced by the global capitalist system and even functional to it. The capitalist system defines the structural conditions of its

growth, for which it needs underdeveloped countries, whether through the supply of cheap raw materials, the control of local elites, the deterioration of terms of trade, or the use of dependent technology. This calls into question the stage-based or evolutionary view (such as Modernization), assuming that the periphery only develops in rupture with the center.

Immanuel Wallerstein developed, along these lines, the world-system theory, according to which the fundamental mechanism of the current development model is the international structural exploitation, whose dynamics reinforce the growth of the countries of the center and also reproduce conditions of underdevelopment. The development of the center is achieved at the expense of mechanisms of domination over peripheral countries, mechanisms of unequal trade, technological and financial control, but also control over the national elites of peripheral countries. This is not an imperialist view, as there is no empire that dominates the world. It is a more structured and long lasting form, with countries integrated into a solid and cohesive structure, sharing common means and objectives, and with the participation of states as an element of protection and domination over the peripheries, which facilitates its persistence over long historical periods (Wallerstein draws here on the contributions of Kondratieff, among other authors of long-wave theory).

In fact, the Frankfurt School also made a decisive contribution to this debate, namely through Jürgen Habermas's approach. Habermas's theoretical framework introduces the concepts of communicative action, the public sphere, and deliberative democracy. First, Habermas distinguishes between instrumental action (focused on results and efficiency) and communicative action (focused on dialogue and mutual understanding). The social dynamics of development are not primarily technical, much less when dealing with structural issues such as development models and sustainability. It is important to strengthen communicative capacity and the social contract among actors regarding core collective values and forms of social organization, enabling the construction of fair and legitimate environmental policies (and, fundamentally, integrated development policies).

This legitimacy stems from debates within the various structures of the public sphere, which address issues undervalued (primarily due to their complex and structural nature) by political and economic powers, through a pluralistic approach and an inclusive vision. This implies a critique of the colonization of the lifeworld by the instrumental logics of the market and bureaucracy, embracing a communicative rationality of the plurality of knowledge, to the detriment of the technical or technocratic rationality of the dominant economic model.

Also Marcuse defends the decisive role of social movements and citizen participation, reestablishing the critical dimension and breaking with the prevailing paradigms, which are steeped in financial rationality, but detached from other spheres of life. The social movements of the 1960s and 1970s set the tone for this analysis, and for the subsequent political changes.

Now, the sociological approach to sustainability is based on the principle that environmental problems are not merely environmental, are not merely technical or scientific, but also profoundly social, structural, institutional, organizational, and communicational. It attempts to analyze social, political, and economic structures, how they contribute to environmental and social degradation, and how, conversely, they can be transformed to promote just and sustainable development.

THE MOST RECENT DEBATE AND INTERNATIONAL INSTITUTIONS

The emergence of these integrated approaches underscored the need for institutional mechanisms for development policy within a broader, supranational institutional framework.

The United Nations Development Programme (UNDP) was formally established in November 1965, following a resolution by the UN General Assembly. This establishment resulted from the merger of two pre-existing agencies: the Expanded Programme of Technical Assistance (1949) and the United Nations Special Fund (1958).

It is currently a UN agency dedicated to sustainable development on a global scale, and has seen its focus expand far beyond economic projects, progressively assuming a role in programs related to health, education, the economy, and sustainability.

In the 1990s, the UNDP launched the first Human Development Report (HDR), which introduced the Human Development Index (HDI), a composite indicator that measures income, education, and average life expectancy (UNDP, 1996; UNDP, 2014; Amin, 2006; Amin, 2010). This moment marked the strengthening of the multidimensional paradigm, which addresses, not only economic growth, but also incorporates key indicators of quality of life. In 2000, the UNDP led the implementation of the Millennium Development Goals (MDGs) and, in 2015, coordinated the 17 targets of the Sustainable Development Goals (SDGs), with a focus on poverty reduction, gender equality, clean and sustainable energy, democracy and governance, and responding to humanitarian crises and climate change.

As early as 1968, a group of business leaders and academics founded an NGO, the Club of Rome, within the framework of the Accademia dei Lincei, an organization that continues to exist today. This NGO commissioned MIT to conduct a study of the global development situation, resulting in the 1972 report *"The Limits to Growth,"* which began by acknowledging the finite nature of available resources and the urgent need to rethink the model of infinite growth that guided capitalist practices. Furthermore, it highlighted the contradictions of the prevailing model, as it facilitated the exploitation of natural resources and raw materials from poor countries, resulting in clear competitive advantages for industrialized nations and exemplifying domination rather than cooperation.

This report, also known as the Meadows Report - named after Dennis Meadows, one of its authors - utilized the most advanced computing technology of the time to create a data model capable of projecting the planet's future based on prevailing trends, namely demographic trends, food production capacity, the progress of industrialization, pollution, and resource exploitation. The approach projected rapid resource depletion in the current model, driven by a predatory logic that jeopardizes the living conditions of future generations. This becomes even clearer when we note that the value of the global economy (Gross World Product, Gross World Income) has grown by more than 200-fold since 1750. This increase has led to resource depletion, pressure on consumption and product management (planned obsolescence, dystopias, etc.), as well as enormous challenges in understanding the (un)limited nature of this growth. For this reason, the definition according to which *"sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (UN; Brundtland, 1987, p. 41) has remained relevant.

In 1987, the Brundtland Report, officially titled *"Our Common Future,"* was published by the World Commission on Environment and Development, under the auspices of the UN, chaired by the Prime Minister of Norway, Gro Harlem Brundtland. This Commission was established in 1983 by the UN, and its first major contribution was published in 1987.

The work stems from a set of contemporary global dilemmas, including the clear depletion of natural resources, pollution, and climate change, as well as the recognition of the limits of the prevailing growth model, which is incapable of reconciling human development with environmental balance.

The report contributes to redefining the current model and concept of development, assuming an inseparable integration between the economy and the environment. Here, the definition of Sustainable Development is based on a model that meets the needs of the present without compromising the ability of future generations to meet their own needs (UN; Brundtland, 1987).

In this way, it proposes a fair and balanced integration of the economy and the environment, stemming from a new approach to balancing and managing available resources, as well as from a concept of unequal shared responsibility. In other words, while it is true that we live in an integrated and interdependent ecosystem, the reality is that the responsibility of the wealthier countries differs (and is greater) in the process of aid or cooperation for development and cohesion.

Similarly, at the national level, the importance of addressing poverty as part of sustainable development is affirmed, as it gives rise to the notion of social justice and balanced, equitable access to resources. In fact, poverty is seen as both a direct consequence and a direct cause of the environmental degradation generated by the current model (Amin, 2006), in a cycle that reproduces its own contradictions.

To address these scenarios, it is important to promote the emergence of sustainable public policies on a global scale (global, integrated, and coordinated policies), with the adoption of structured long-term policies.

This report consolidated the concept of sustainable development, definitively refuting the dissociation between economic growth and environmental preservation, and directly influenced the key moments of the subsequent debate, namely the Rio-92 Conference, the resulting Agenda 21, as well as the terms of the Kyoto Protocol (1997) and the SDGs (2015), not forgetting Copenhagen or Paris.

The proposal interdependently combines economic growth, social justice, and the fight against inequality, as well as environmental protection, in a virtuous process capable of breaking with developmentalist logic and determinism.

In 1999, Amartya Sen published the book *“Development as Freedom”* (Amin, 2010), which became a decisive contribution to shifting the analytical framework and the way development issues are understood. His work acknowledges the growth and development of societies, particularly Western societies, but highlights their existential contradiction: poverty and inequalities persist even in these countries and, in many contexts, are becoming more pronounced. The author starts from the idea of “substantive freedom” (that which can be exercised) to argue that freedom corresponds to the choices available to individuals across different social spheres, thereby defining a significant margin for success in growth and development (Amin, 2010). However, if the scope for freedom and autonomy is limited in many contexts and for many social groups, the success of their emancipation is, from the outset, compromised.

This approach is abstract, allowing it to encompass multiple realities and historical moments (from minority rights to women’s rights, from equality to social justice). For Sen, only the view of development as freedom can emancipate individuals, groups, and nations, identifying key areas in the process - such as health, education, and social participation, to name a few. The approach draws on Aristotle’s view in his *“Nicomachean Ethics,”* according to which only freedom plays a constitutive role in people’s fulfillment, while growth plays a fundamentally instrumental role. Freedom (in its various forms addressed by Sen) implies access to options that reinforce the dimensions of the individual and their emancipatory social relations.

From a distinct but equally critical perspective, P. Bourdieu emphasizes that communities that equate consumption and property with prestige tend to resist efforts at redistribution or social inclusion, because these are seen as markers of a devalued form of individual distinction. It follows from Bourdieu’s approach to distinction that changes in symbolic capital - from the valorization of consumption to the affirmation of a sustainable life - can alter the rules of social competition, so that prestige aligns more with the equitable distribution of resources and less with possession. This, of course, hinges on the central role of education as an agent of social change (Amin, 2010), breaking with traditional contexts across generations, whether in leadership, social organization, or expectations and perceptions.

However, this approach requires an effort to reconcile with strong and deliberate political innovation, capable of redirecting competencies and resources toward sustainable ends, without precipitating undesirable socioeconomic instability resulting, for example, from more or less abrupt proposals for degrowth (Latouche, 2010) that could potentially jeopardize structural change by contradicting the short-term aspirations of social actors.

Following Bauman, the critical approach to consumption and its association with well-being and success proves decisive for understanding the social mechanisms of production and the contradictions of the capitalist model. This critical analysis helps identify, within society, explanations for social phenomena that also affect the environment but are not strictly environmental, and allows for the definition of feasible paths for change.

Anthony Giddens’s approach shapes much of the current sociological debate, shifting focus away from specifically environmentalist themes (related to nature) and problematizing industrial and technological human activity, as well as its consequences for the systemic balances of society, namely pollution, the rise of social inequalities, the crisis of institutions, the challenges of democracy, the loss of biodiversity, urban conflicts, among many others.

Because we live in a modern world - one distinct from the past and one that gives rise to new global risks - it is imperative that this modernity be a reflective one, in which environmental problems are recognized as consequences strictly resulting from human action and risks are accepted as an intrinsic element of the social structure. The author identifies the social paradox par excellence: despite this

recognition, people tend not to act when risks seem distant to them (what we previously referred to as the “polar bear problem”), and they tend to act only when it is already too late. It is the paradox of social practices and representations, identified by Giddens, that demands the participation of the state and decisive public policies grounded in innovative, more globally scaled models of governance (Giddens, 2017), in what is, objectively, a critical analysis of current power structures. In fact, the issue is sufficiently structural and global, requiring international political coordination and the active participation of states, social movements, and citizens.

The process of change thus requires a shift in lifestyles and consumption habits themselves, embracing a new collective responsibility grounded in the common good rather than selfish individualism. The ecological crisis is, therefore, a product of society’s structures and modes of operation, constituting a civilizational challenge that demands structural and global responses.

Ulrich Beck had already introduced the idea of the “risk society” into sociological analysis, according to which global threats - many of them linked to environmental degradation - take center stage in the social organization of different countries and regions. Following Beck, the social risks under analysis are produced by modern structures of production and consumption themselves, constituting an integral part of the social fabric and the structural forms of organization of modern societies. In this vein, societies produce the very social risks from which they suffer, asserting that air pollution, the marked loss of biodiversity, or climate change are not inevitable consequences of progress, but rather factors stemming from industrial models and systems, from an intensive economy based on the production-consumption relationship, and from the operational logic of the economic and social model (UNDP, 2019). The importance of the reflexive nature of modern societies, highlighted by Giddens, calls into question the structural impacts of human action and deepens institutional mechanisms capable of critically re-examining patterns of behavior and social organization. From this perspective, processes of energy transition or urban reorganization, for example, entail structural revisions of prevailing social dynamics, dominant social representations, and traditional models of public policy (Giddens, 2017).

The progression of social and environmental crises, as well as the deepening of risks and inequalities, shows that ecological elements cannot remain as variables external to models of social analysis and interpretation, which implies an integrative and systemic sociological vision and paves the way for a reflective and problematizing approach, with an impact on public policies. In other words, according to J. Sachs’s synthesis, “*sustainable development is a way of understanding the world as a complex interaction between economic, social, environmental, and political systems*” (Sachs, 2014, p. 11), thus paving the way for an indispensable intervention by the social sciences in general and sociology in particular.

THEORETICAL DEBATES ON SUSTAINABILITY

The “Great Acceleration” describes the major changes in contemporary societies that require further analysis. This term, proposed by the American Will Steffen, refers to the fastest structural changes ever seen in Western society, beginning in the 1950s, with repercussions across various domains, impacting human development and ecosystems. The main characteristics of this process relate to the acceleration of socioeconomic processes, such as growth in production and productivity, the centrality of GDP, the consumption of energy, natural resources and raw materials, and the decisive incorporation of new technologies into all spheres of social life.

This context has caused extraordinary impacts on ecosystems, often displaced to regions of the globe distinct from the territories of Western countries, or through the exploitation of resources where they exist (in many cases, it is in the poorest countries that they are found), leaving significant alterations in ecosystems and reinforcing the role and consequences of the historical Western presence and the persistence of its societal dynamics of inequality. Some authors even go so far as to define it based on the actual effects on the planet and ecosystems, with a temporal boundary set in the mid-20th century: the Anthropocene, so named by Paul Crutzen, corresponding to a new era in which society will face the challenges “in the face of Gaia,” in Bruno Latour’s words - that is, the impacts on environmental or natural systems.

The preceding period (the Holocene), characterized by relatively stable living conditions, combined with the agricultural revolution, allowed the global human population to grow from less than 10 million at the beginning of the Holocene to over 1 billion at the start of the 19th century and to over 8 billion today. In recent decades, human activities have intensified, potentially exceeding the Earth's stability. This shift marks the beginning of the Anthropocene, a period characterized by dependence on fossil fuels, industrial agriculture, and the unsustainable use of resources that disrupt the Earth's delicate balance. It is, in fact, an era characterized by profound human influence across the entire complex Earth system.

The sociological approach to sustainability thus starts from the principle that environmental problems are not merely technical or scientific, but also structurally social (Habermas, 2003; Habermas, 2007). In fact, following a fundamentally Durkheimian line of "explaining the social through the social," it is understood that the social issues arising from ecological imbalances are, at their root, dimensions stemming from the modes of organization and structural functioning of societies. Now, the sociological approach to sustainability analyzes the forms and dynamics through which social, political, and economic structures contribute to social and environmental imbalances, and how they can be transformed to promote a model of balanced, sustainable development. It is certainly a potential field for the professionalization of sociologists, but it is, above all, a foundational element of the multidimensional understanding of current social realities, their linearities, and their contradictions.

The sociology of sustainability is thus a branch of sociology that studies the interactions between societies and the environment, focusing on the mechanisms that organize social life in a sustainable manner - that is, ensuring human well-being in a way that is balanced with the natural and social resources bequeathed to future generations. This is not strictly a financial issue, nor is it strictly an ethical issue regarding the preservation of animals and plants. It is much more than that. And it implies a structural view of society that goes far beyond theoretical determinism and holds significant potential for intervention and foresight.

The topic has long been tied to two narrow debates. On the one hand, the strictly financialist approach situates the issue of sustainability within wealth creation in a fundamentally quantitative manner. On the other hand, the strictly environmentalist approach focuses solely on biological and environmental issues. Yet plants and animals do not exist in isolation from their relationships with other social domains, and the reverse is equally true.

In fact, biodiversity shapes the lives of communities through its ecological dimensions, but fundamentally through its cultural dimensions, social models, and symbolic aspects embedded in social structure and local/national identity. The relationship is reciprocal: communities directly affect biodiversity through their socioeconomic strategies, resource-exploitation practices, and models of governance (politics). But changes in the ecological system (of biodiversity), in either direction, also reorganize social structures, societal relations, and the dynamics of the identity aspects at play. This is where the sociology of sustainability must come into play.

Urbanization is a historical process that clearly exemplifies this interrelationship. In fact, it creates a set of needs and demands on social structures, cultural dimensions, and institutional logics, defined by sociopolitical processes, value systems, and structural (in)equalities. Social stratification shapes residential location, safety, access to drinking water, the availability of quality public spaces, and even access to better health indicators and average life expectancy. Peripheral or marginalized communities are thus more exposed to the climate, severe weather events, and fragile infrastructure, among many other factors.

These perspectives reinforce the argument that sustainability must be understood holistically, simultaneously incorporating social justice and environmental conservation (Schmidt et al., 2016). This approach, however, requires more than mere statistical analysis; it entails profound sociological examinations of the meanings of these indicators and their trends within the context of current realities, which are crucial for shaping the necessary (new) public policies.

Thus, the approach to sustainability is multidimensional, offering multiple perspectives for understanding societies and their strategic balances with the economy, social dimensions, governance models, institutional structures, and the environmental balance. It is an affirmation of the role of human

beings in creating a new era, the Anthropocene, which marks these changes and finds its path from the natural sciences to the social sciences and philosophy (Vries, 2022).

In fact, unprecedented economic growth demanded new forms of production and organization (internationalized, with expanded and consumerist markets), as well as new ways of creating needs, whether through appeals to consumption in its various forms or through strategies driven by market logic, such as planned obsolescence. This also led to intense urbanization, reinforcing a process that had been underway since the 19th century and gaining unprecedented intensity. To explain this dynamic, 24 indicators were addressed in the IGBP (International Geosphere-Biosphere Program) synthesis, Global Change and the Earth System, and were reviewed and updated in 2015 in the Anthropocene Review.

This shifts the theoretical discussion away from outdated issues of economic growth and narrow development themes toward a systemic, structural, and multidisciplinary approach, overcoming fragmented discussions and promoting the consolidation of a distinct field of study that is coherent in theoretical and epistemological terms. A critical, comparative, integrated, and multidisciplinary perspective is now adopted regarding environmental conflicts, the relationship between the social sciences and the environment, and the limits and potential of the field of the sociology of sustainability. The historical review incorporates milestones such as the United Nations Conference on the Human Environment (1972) and ECO-92, held in Rio de Janeiro. More recently, some initiatives have sought to overcome various dichotomies through integrated approaches and the use of critical indicators, such as the Ecological Footprint and the Environmental Sustainability Index. The most recent literature also highlights the roles of institutional networks, environmental education, and public policies in consolidating the scientific field and overcoming the tensions and disputes that run through these debates.

Eco-92 represented a significant milestone in broadening debates not only scientific but also political and social, including the strengthening of the environmental movement and the problematization and creation of public policies aimed at sustainability (Alonso & Costa, 2002). This conference boosted academic output and the inclusion of environmental issues in academia, establishing sustainability as a legitimate field within the social sciences, particularly sociology (Alonso & Costa, 2002, p. 3).

Its complexity requires that we consider the social impacts resulting from environmental changes, such as environmental injustice and racism, which often leave marginalized populations more vulnerable. A sociological approach to this issue involves accounting for power imbalances and unequal access to resources, as these structural inequalities exacerbate environmental crises and limit effective responses. In this context, sustainability cannot be viewed as a unitary and static concept, but rather as a field in constant (re)construction, marked by conflicts and tensions, and with significant potential for theoretical, methodological, and epistemological contributions.

Until now, the environmental issue has been treated marginally by the social sciences, resulting in a historical gap in academic studies on the subject. However, as already mentioned, the trajectory of the social sciences has revealed a significant process in the institutionalization of sustainability as an interdisciplinary field of research, although they still face structural challenges, such as the geographical concentration of the debate, its focus on biological and environmental issues, the very recent nature of the problems under analysis, and the limited coordination between different areas of knowledge.

Sustainability, therefore, implies new theoretical and methodological paradigms that overcome the dichotomies between society and nature, recognizing the interdependence between social and natural systems. This approach must integrate the structural dimensions of power and institutional and organizational inequalities, broadening the analytical field to encompass issues of social resistance and the (re)distribution of risks and benefits (Lamim-Guedes, 2015, p. 2; Longo et al., 2021). Thus, the integration of critical and interdisciplinary perspectives is essential to address contemporary challenges, proposing reflections and actions that articulate justice, governance, and scientific and technological innovation.

Until recently, epistemological fragmentation persisted, with ecology focused on natural systems and sociology on social systems, hindering comprehensive, interdependent analyses of environmental challenges. In line with Silva Junior and Ferreira (2013, p. 7), this dichotomous approach was marked by the use of the concept of “ecosystem” in the 1990s, while, in the following years, greater emphasis was placed on the notions of “community” and “landscape.” In fact, *“the reconceptualization and construction*

of a new paradigm of sustainable development introduce elements of epistemological and theoretical rupture, but also integrate previous legacies" (João Ferrão, in Ana Delicado, 2018, p. 365). Thus, beginning in the 2000s, significant efforts emerged to adapt concepts such as complexity, diversity, and integrity to interdisciplinary studies, enabling the formulation of theories capable of integrating analyses of social and environmental phenomena (Silva Junior & Ferreira, 2013, p. 7). These advances were consolidated through the incorporation of models, such as structuration theory, which provided sociology with new tools to understand the interdependence among social actors, technologies, market dynamics, and environmental processes (Silva Junior & Ferreira, 2013, p. 10).

Thus, theoretical advances in sociology reinforce the idea that natural and social events are inseparable, highlighting the analytical potential of sustainability for understanding new forms of social organization and functioning, as well as for an ethical discussion of the planet's limits (*the "planetary boundaries"* discussed by Niklas Kitzmann, Levke Caesar, Boris Sakschewski, and Johan Rockström, in PBSscience, 2025).

Thus, sustainability must be understood as a comprehensive social phenomenon, as its multidimensional nature spans the environmental, social, economic, and political spheres, with global impacts that shape history and contemporary forms of social and political organization. This has implications for various other areas of sociological analysis, including urban sociology, cultural sociology, and the sociology of stratification, among others.

Current scientific research also highlights the difficulties faced by sustainability policies, even with the development and use of indicators such as the Ecological Footprint, the Environmental Sustainability Index, and the Genuine Progress Indicator. Although these tools confirm the emergence of environmental crises, they also highlight the limitations of approaches anchored exclusively in quantitative metrics, especially in understanding the complexity of contemporary challenges. Several analyses indicate that, despite global efforts to implement a sustainable development model, environmental problems continue to worsen rapidly, underscoring the need for integrated, multidisciplinary analyses.

Now, *"this is what sustainability aims to combat: a moribund economic system that has depleted many of the world's finite resources, including fresh water and crude oil, caused a collapse in global financial systems, promoted social inequality in many parts of the world, and brought human civilization to the brink of catastrophe, by recklessly championing economic growth at the expense of essential resources and ecosystem services."* (Caradonna, 2022, p. 8). It is true that *"industrial societies will never be able to return to a pre-industrial ecotopian ideal."* However, sociological analysis also aims to combat a discourse on sustainability that serves to legitimize conventional economic growth strategies that continue to reproduce unsustainable patterns, now under a disguised narrative - of which *greenwashing* is a prime example. Instead, *"most environmental issues are the result of an integrated system of actions and situations that have led to environmental decline."* The key to this approach is the recognition that issues such as population, food, species extinction, energy, industry, urbanization, and social organizations are interconnected across disciplines (Blinkman, 2016, p. 13).

Thus, it is essential that sociological responses to sustainability be formulated to strengthen governance systems at the local and international levels. This requires the creation of effective mechanisms for international regulation and, starting with academia, the conclusion of multilateral agreements, and the consolidation of coordinated environmental public policies, in order to overcome the usual disconnect between the economic, social, and environmental sectors.

Promoting sustainability as a collective and structural effort involves education and awareness-raising, as well as active public policies that support investment in areas that may not yet have achieved financial autonomy. While this is not the place for an in-depth discussion, we cannot fail to emphasize the importance of initiatives such as the New European Bauhaus (NEB), a European Union initiative launched in 2020 by the European Commission to integrate the European Green Deal into people's daily lives. It combines sustainability, aesthetics, and inclusion to promote a green transformation that is not only efficient but also beautiful, accessible, and socially fair. It draws inspiration from the early 20th-century German artistic and architectural movement, known for uniting art, technology, and functionality, reviving that spirit while focusing on contemporary challenges: climate, inclusion, and quality of life.

Among many examples, the following projects stand out: Superilla Barcelona - “Superblocks” (reorganizing streets to reduce cars, expand green spaces, and prioritize people, creating healthier and more aesthetically pleasing neighborhoods), the Urban Cool Islands (systems of “cooling islands” using permeable materials, appropriate vegetation, and urban *design* to reduce heat in critical areas), or the initiative Re-Wrap movement, founded by Janjri Trivedi (a project by small businesses and *designers* who create fabrics and furniture from textile waste, combining aesthetics/design with the circular economy).

CONCLUSION

It is true that recent data reveal that less than 20% of the world’s population consumes 80% of resources (most of which are non-indigenous in origin), which amplifies social and spatial disparities and reinforces the need for scientific debate on alternative models such as degrowth, decoupling, deglobalization, the circular economy, and the welfare economy, among several others. At stake are the hegemonic conceptions of progress, based on continuous economic growth, as well as the discussion of environmental justice, deepening the analysis of issues such as environmental racism, social and spatial vulnerabilities, and their repercussions on the social structure, communities, and their organization and cohesion.

On the other hand, social mobilization and civic participation emerge as crucial elements as instruments that support well-founded public policies adapted to local needs and engaging people. Examples from Southern European countries indicate the negative impact of economic crises, such as the austerity policies of 2012, which weakened environmental policies and placed institutions and the population in complex socio-environmental dilemmas. It is understandable that adopting more demanding (and perhaps more costly) criteria is more difficult in times of crisis. Therefore, integrating multiple dimensions from a sociological perspective offers pathways that link science, governance, and citizen participation, promoting fairer, more participatory, and more sustainable solutions, therefore, a better future.

The consolidation of the sociology of sustainability represents a strategic opportunity to expand the comprehensive, transformative impact of the social sciences, promoting a pluralistic, participatory agenda guided by the values of democracy, justice, equity, and inclusion. Critical engagement not only drives scientific progress, but also fosters concrete alternatives to emerging global challenges and to structural contradictions of the social systems, reaffirming (and reinforcing) the role of the social sciences at the intersection of knowledge, public policy, and social intervention and transformation.

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