

Vol. 20, Issue 2, 2025: 125-140

DOI: 10.15170/MG.2025.20.02.07

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Sustainabilities in Brazil: Institutional Modernization, Strategic Public Policies and Political Geography in the Brazilian Environmental Agenda

ABSTRACT

Since the early 1970s, the discourse on sustainability has been employed in development projects based on the use, appropriation, and management of resources. Since then, socio-spatial contexts have introduced development rhetoric at various scales (from global to local) to civil society, making the socio-spatial consequences of ecological and environmental exploitation more or less intelligible. Such rhetoric informs policy changes implemented by territorial managers and social actors who directly experience environmental conditions in their regions. As a result, environmental management strategies in Brazil have adapted to varying degrees of public participation, depending on the level of democracy in public policies across different levels of government. In the context of sustainability in Brazil, the role of political levels within federalism fosters the greatest plurality of ideas, responding to the eco-environmental demands of Brazilian society—both from the cultural perspectives of traditional communities and the requirements of national economic projects. To address this complex political and institutional challenge, multi-scale public management must prioritize the understanding that nature and society co-produce environments shaped by both harmonious and conflicting forces, ultimately promoting quality of life and social justice.

Keywords: environment. federalism. scales, public policy, Brazil

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INTRODUCTION

Mentioning the early days of institutional discussions on ecology and the environment in Brazil means revisiting the developmental rationale behind military government projects between 1965 and 1985. The first approaches to regulating nature and its spatial relationship with public authorities carried a strong geopolitical burden, tied to the State's control over national territorial resources. As identified by Bertha Becker (1993, 2007) in her extensive research on the Brazilian Amazon since the 1980s, Brazil's public management of these issues until that decade strongly resonated with the military's decisions and interests, which were shaped by conservative nationalism. This ideology prioritized border protection, particularly in the northern and western regions—territories where state-driven agricultural frontier expansion and infrastructure projects for transportation and energy remained underdeveloped. Consequently, Brazil's initial environmental management emerged as a bureaucratic geopolitical strategy rooted in national development, which, in turn, was primarily focused on the internal control of resources and closely linked to the prevailing economic growth model of the time.

By the 1970s, discussions on ecology and the environment had gained prominence on the international stage through forums and conferences that disseminated new ideas and perspectives. These gradually influenced territorial management strategies and the incorporation of ecological and environmental considerations into public policy modernization and institutional planning². In this context, the decentralization of ecological and environmental public policies in Brazil occurred primarily in the northern and midwestern regions, which had been strategically prioritized by the state for the administration of the national strategic vision, *Amazônia Legal*. With the gradual return to decentralized federal management in Brazil, the strengthening of state governments—alongside the rise of multiple political parties through direct elections—created momentum for ecological and environmental discussions. This, in turn, reinforced the management of these issues across different levels of political and institutional representation.

With the enactment of the 1988 Constitution, the restoration of bureaucratic and public governance in Brazilian states was reinforced by expanding the power of local governments (municipalities). Magrini (2001) consolidates this fact within an *integrative standpoint*—a characteristic of the 1990s—highlighting environmentalism as the theoretical foundation for contemporary political actions on ecological and environmental matters in the country. In this framework, the federal, state, and municipal governments began to collaborate on ecological and environmental projects within their respective territories, following a hierarchical authority structure (Wright, 1988—see page 12, tables 3 and 4) in which municipalities play a key role. Today, they remain the third level of decision-making power regarding strategies for the use and appropriation of natural resources.

According to Magrini (2001), the evolution of environmental policy in Brazil can be understood in relation to global milestones that shaped ecological and environmental policies after the mid-20th century. Before reaching its current *integrative* approach—now considered ideal—environmental

² Articles examining the integration of sustainability into development strategies have also been published relatively early in the pages of *Modern Geográfia* (Baranyai, 2007; Darányi & Gálosi-Kovács, 2011; Glied & Barkóczi, 2013; Kovács, 2013).

policies, as Magrini notes, initially followed a *correctional* perspective (predominant in the late 1960s and throughout the 1970s), later shifting to a *preventive* stance (mainly in the 1980s).

Under this integrative standpoint, Théry (2005) emphasizes that the revival of the Brazilian rule of law elevates the discussion and appropriation of *Amazônia Legal* to a new level of national significance. According to the same author, the governments of Fernando Henrique Cardoso, through the federal programs *Brasil em Ação* (1996) and *Avança Brasil* (2000), promoted economic and structural integration projects in the Amazon at both national and continental levels. These initiatives strengthened the region, establishing it as a key milestone in the interconnectedness of Brazil's productive and structural networks across South America. The Amazon's production chains became central to Brazil's continental integration, and the substantial technological and infrastructural investments in the region prompted both Brazilian and international societies to organize forums aimed at developing public policies to mitigate the severe ecological and environmental challenges emerging in the Amazon.

These social and environmental transformations had a ripple effect on how both the State and Brazilian society perceived ecological and environmental issues. Following the Rio-92 Summit (among numerous other conferences held throughout the final decade of the 20th century) in Rio de Janeiro, such topics were firmly incorporated into national public policy at multiple levels of governance.

Since the beginning of the Workers' Party governments in 2003, Brazil has undergone a decade of significant decentralization in national environmental management projects—despite the persisting contradictions in legislation, which remains highly centralized and hierarchical. This reality underscores the critical role of geography in understanding what we refer to as *sustainability* within Brazilian territory as a reflection of political space. How can sustainability be effectively promoted in a country with such ecologically diverse and politically complex territories? How does the State conceptualize ecological and environmental management, and how can it be structured to foster social justice through cooperative governance among federative units?

In this context, this article encourages readers and researchers to critically engage with and apply management tools that can expand the possibilities for utilizing ecological and environmental resources, with a primary focus on reducing social inequalities for collective benefit. It also highlights the need to structure public management dynamics in a geographically diverse country, contributing to a broader understanding of how geography can inform territorial policies in both Brazil and the world.

METHODS

Environmental research in Brazil has undergone significant transformations since the 1990s. These changes reflect both scientific advancements and the socio-environmental needs of a country that revalidated its data collection agencies and redefined the roles of federated units and municipalities,

which gained greater autonomy under the Federal Constitution of 1988, still in effect. This section presents the methodology employed by the author for the ongoing discussion.

In the twenty-first century, environmental research has become increasingly integrated with broader access to high-resolution remote sensing technologies. Computational modeling has allowed researchers to simulate future scenarios and assess the impacts of climate change and land use, among other pressing challenges. Additionally, there has been a growing emphasis on citizen science, wherein local populations contribute to data collection, expanding the scale and reach of research efforts. Despite persistent challenges—such as environmental governance issues and political conflicts that hinder the implementation of evidence-based policies—the literature in this field is highly developed. It provides researchers with multiple avenues for investigation and diverse analytical perspectives.

The integration of large volumes of environmental knowledge has guided the author of this article in selecting secondary data from various research efforts, following three main methodological paths:

- A broad survey of public reports (mostly available online) on legal changes and the establishment
 of public authorities concerning ecology, the environment, and environmental management in
 Brazil, dating back to the 1960s (a period marked by the military coup that abolished the rule
 of law at the time);
- 2. Consultation of scientific works related to transitional historical periods, where the degree of interdisciplinarity and the scalar diversity of environmental events and their public managers can be assessed; and
- 3. Methodological approaches (with reference literature) based on participatory strategies and citizen science. These include books, reports, and videos that illustrate how the integration of local communities into environmental research projects contributes to public engagement in data collection, thereby broadening research scope and fostering environmental awareness.

Thus, from advancements in remote sensing to the expansion of citizen science, the qualitative-quantitative foundation of this article enables a more efficient, collaborative, and sustainable approach to understanding the environment—its management structures, challenges, and possibilities.

RESULTS

Phases of the eco-environmental policy transformation in Brazil: General aspects of a late federative problematization

Eco-environmental policies in the country developed late compared to other sector-based policies and emerged primarily in response to international environmental movement demands, starting with the German ,Grünen' (Greens) in the mid-1960s (Leis, 2004). This delay is directly related to the limited academic culture of that period in the country, as the conservative urban-industrial elite adhered to the classical model of national wealth, based on Rostovian or Marxian logics.

As an ancillary aspect of development, or a 'necessary evil,' pollution and environmental degradation increasingly affected the country's population, worsening with metropolitanization in

the global periphery. Issues related to the distribution and conservation of urban water bodies, the preservation of springs, green slopes, and air quality in cities, as well as various other changes in natural elements to maintain ecological balance, expanded the discussion on the State's capacity to mitigate the impacts of development (Rodrigues et al., 2022). Consequently, large urban centers became fields of observation for researchers attuned to the environmental challenges of Brazilian cities. Although the pollution and environmental impact of uncontrolled urban growth were evident, they were often justified by the benefits brought by progress; in other words, eco-environmental issues were expected to be accepted with resignation (Goldemberg & Barbosa, 2004).

However, times were changing. Considering the power of U.S. public authority—the first country to recognize the need and urgency of governmental intervention in eco-environmental issues in the 1960s, with the formalization of the Environmental Impact Assessment (AIA) at the federal level in 1969 (Goldemberg & Barbosa, 2004)—it was in Cold War-era West Germany that environmental policy representation took shape. Over the following decades, Germany developed a strong environmental education culture (Grün, 2007), forming numerous individuals active in legislative spheres with well-structured agendas to serve German and European society.

In Brazil's case, despite eco-environmental policies being introduced during military governments in the 1970s, their emergence was largely due to international pressure concerning the Amazon and its preservation. Even though the Stockholm Conference (1972) is considered the most significant environmental summit in the contemporary world—one that helped shape future institutional summits addressing major eco-environmental issues—it was conceived in Brazil as a geopolitical strategy of the Cold War. It represented a Western appropriation of environmental causes, seen more as a "necessary evil" than a genuine development concern, something that could potentially hinder development itself.

This discussion was suppressed in Brazil for two reasons: (1) Debates about national sovereignty over areas rich in natural resources (Amazônia Legal) and continental borders. (2) The prevailing belief that nature should fuel Brazil's rise as the "great country of the future", a nation yet to be fully industrialized, maintaining high agricultural production and vast reserves of minerals and potable water. As a future global power, Brazil was expected to play a key role in sustaining the international system of power relations concerning resources for development.

Despite the significance of these issues, specific environmental policies—similar to those implemented in countries like West Germany—were not developed by Brazilian public authorities. Instead, environmental matters were handled through sectoral regulations, including the Water Code (1934), the Forest Code (1965), and Fishing and Hunting regulations (1967) (Bredariol, 2001). There was no coordinated government action or any central agency overseeing environmental concerns (notably, the periods referenced by the author correspond to times of dictatorship in Brazil—both under Vargas and the military government post-1964). Additionally, no structured environmental governance existed at other levels of the federation.

Nevertheless, with the modernization of peripheral economies (including Brazil), pollution became a growing concern in some social and economic sectors (e.g., industrial activities, water pollution,

and urban mobility), leading to increasing environmental demands (Meadows et al., 1972). Despite minimal regulations and interventions, the state could no longer avoid legislative changes addressing water and air pollution.

Having been extensively studied, post-1970 development projects adapted the ,Limits to Growth' report formulated by MIT. This report presented models linking economic and demographic growth to pollution and natural resource depletion, highlighting the technical aspects of contamination due to rapid industrialization and urbanization (Meadows et al., 1972). The document aimed to provide a broader understanding of the limitations and quantitative and qualitative constraints related to population growth and the expansion of human activities (production, consumption, and waste generation), identifying key factors influencing global systems and their interactions. The academic and managerial intelligentsia referred to a "certain world crisis".

At that point, political concerns regarding eco-environmental management began to take shape, and global ecology conferences—primarily organized by the UN—encouraged societies to push for governmental actions providing technical and financial assistance to mitigate growing environmental damage. Several national entities were tasked with planning, managing, and controlling environmental resources within their territories. However, the dictatorship at the time and the military government's geopolitical vision of transforming Brazil into the "power of the future" reinforced the notion that economic growth should not be sacrificed for a cleaner environment. This perspective was officially defended by Brazil's central government at international summits, such as the Stockholm Conference in 1972 (Ferreira, 1998).

Brazil's international participation was primarily aimed at shifting the responsibility for the environmental costs of economic growth onto central nations. Brazilian leaders invoked the principle of sovereignty (i.e., natural resources within national territory belong to Brazilians) to prevent the country's subjugation to international eco-environmental protection decisions imposed by foreign countries and organizations.

With the establishment of the National Bureau of Environment (SEMA) in 1973, public authorities began internally addressing eco-environmental issues generated by economic growth, although decision-making remained centralized within the military dictatorship. Despite this, there were notable legislative advances concerning the production of biodegradable detergents, vehicle emissions control, the designation of critical pollution areas, and the creation of national conservation units. However, at that time, policy measures mainly focused on industrial and rural pollution, while neglecting significant contributors to environmental degradation, such as inadequate investments in public housing and basic sanitation in major Brazilian cities. Additionally, environmental education projects and professional training programs for agricultural producers were largely ignored, allowing polluting practices (such as deforestation through burning) to persist, causing severe harm to biodiversity and soil quality in rural areas.

The lack of control over real estate speculation, coupled with insufficient regulation of fertilizers and pesticides used by large landowners, led to escalating ecosystem destruction and environmental degradation throughout the 1970s.

During the political re-democratization process, SEMA laid the groundwork for the creation of the National Environment System (SISNAMA) in August 1981. Federal Law 6.938 introduced a more comprehensive framework, and the National Environmental Council (CONAMA) was established as a consultative and deliberative body within the environmental governance structure. CONAMA included representatives from ministries and federal agencies directly involved with environmental issues, as well as state, municipal, and Federal District environmental bodies, industry representatives, and non-governmental organizations.

From 1981 onward, eco-environmental concerns were no longer treated merely as isolated sectoral issues but became part of a broader collaborative framework involving both institutional and non-institutional actors in environmental debates. Within this context, redefining responsibilities in sectoral environmental management became a strategic federal issue, triggering intense disputes within the public administration due to differing perspectives on how eco-environmental policies should be implemented across multiple levels of government.

The complexity of eco-environmental issues and the diversity of stakeholders involved in their management, as established by the 1980s legal framework, contributed to defining objectives, principles, guidelines, tools, responsibilities, and institutions within the National Environmental Policy. According to Bredariol (2001, p. 18), this framework reinforced the understanding that environmental preservation is "favorable to life and aims to ensure the conditions for the socioeconomic development of the country, national security interests, and the protection of human dignity." The regulatory instruments were further reinforced and enshrined in the 1988 Federal Constitution. However, even before this constitutional transformation, Brazil's environmental policy underwent a significant redefinition during José Sarney's government (1985–1989).

(...) through restructuring of public agencies in charge of the environmental issue. Through the program *Nossa Natureza* (Our Nature), Sudepe (fishing), Sudhevea (rubber), IBDF (forest development) and Sema (environment) were unified around only one federal agency: the Brazilian Institute for the Environment and Natural Resources (IBAMA, in Portuguese). (Sousa, 2007, p. 5).

After the adoption of the new Federal Constitution, the decentralization of political decision-making also influenced the way eco-environmental responsibilities were managed nationwide. Under a "more preventive than corrective" approach and within the framework of decentralized federalism—where roles and responsibilities in state administrative management were restructured—the implementation, development, expansion, and operation of activities that generated pollution became subject to prior licensing by a state agency within SISNAMA, in accordance with Decree 99.274 of 1990. The preventive system's mandate to address situations that could jeopardize quality of life (specifically, human health at that time) extended the technical and political competencies of state authorities. This included establishing basic criteria for Environmental Impact Studies and the Environmental Impact Report (EIA/RIMA, in Portuguese), which became mandatory in such cases (Sousa, 2007).

In this context, the advancement and dissemination of technology in the post-Cold War era, along with the recognition of the need for more qualified professionals to address the causes and consequences

of environmental issues in Brazil, led to an increase in the training of eco-environmental leaders and professionals in specialized fields. These experts were tasked with monitoring and assessing the quality of environmental management at the local level. Once again, the emergence of a technical-scientific body helped drive legislative discussions across different levels of Brazilian federalism, aiming to modify and/or expand regulations, controls, and permitted uses in a country marked by vast socio-ecological disparities. This shift undeniably brought eco-environmental discussions, specific policies, and key stakeholders into the political arena. Consequently, the environmental agenda at both municipal and state levels began to be adapted to respect local specificities and demands.

The eco-environmental debate primarily focused on the adverse impacts of socio-spatial development, which, based on Western economic growth models (whether capitalist or socialist), raised a crucial new question: What were the prospects for development in degraded environments? Who was responsible for protecting the environment to ensure the availability of natural resources for future generations across diverse environments and scales? The concept of "Sustainable Development", introduced by the Brundtland Report of 1987—better known as *Our Common Future* by the United Nations Environment Programme (PNUMA, in Portuguese)—became deeply embedded in political-institutional discourse, political parties, social movements, and all levels of education, from basic to technical and academic.

The report's integrative perspective—which emphasized the responsibilities of various actors, agents, and stakeholders at multiple levels—reinforced the idea that society needed to diversify its networks, structures, and operational levels (including the political-institutional sphere) in order to bring about meaningful change in eco-environmental issues. This opened the door to new agreements, responsibilities, competencies, and forums for discussion. In Brazil, this issue became particularly evident with the redistribution of federative responsibilities, prompting discussions and institutional reforms regarding the nature and application of sustainability. Sectoral forums facilitated discussions on global environmental issues, with active participation from national and international non-governmental organizations (NGOs), guided by the principle: "Think globally, act locally". As a result, federative units and municipalities increasingly played a role in decision-making on environmental matters in Brazil.

With the full implementation of the 1988 Constitution, local environmental responsibilities were clearly defined, and the decentralization of environmental actions and decision-making became a key aspect of governance. However, even 20 years after the Constitution came into effect, the *Basic Guide for Municipal Management*, distributed by the Central Government since 2008, still places states and municipalities hierarchically below the federal government in environmental management. This suggests that the national government continues to assume primary responsibility for ecoenvironmental policies in the country, as illustrated in Figure 1.

New themes for environmental policy have been redefined. Additionally, the need for broader competencies within political-institutional spheres, alongside social movements, led to the creation of a new international conference: the United Nations Conference on Environment and Development (UNCED-92), commonly known as RIO-92, held in Rio de Janeiro, Brazil, in 1992. This event

signified Brazil's commitment to addressing the environmental crisis while simultaneously resuming development, strengthening federative democracy, and ensuring economic stability. The issue of development was finally framed within a socially sustainable environmental perspective and democratic decentralization. As a result of the discussions at the conference, industrial pollution control and urban environmental management were prioritized as essential components of local governance, particularly for municipal governments, the credit market, and technological advancements.

The water we drink, the air we breathe, the contamination of the food we consume, the garbage and waste we produce, the recreational, leisure and green areas or the silence we enjoy have become problems of market and of citizenship, to be provided by local governments (Bredariol, 2001, p. 20).

Union Governments Federative States Governments Power over the Federal Constitution: definition of the **Municipal Governments** State Constitutions converge forms of partnership among its members for with federal supremacy on Municipality Organic Law final decisions over environmental management, (LOM, in Portuguese) based since the National Policy the environmental issues: on Direction Plans (limited to regulatory agencies seek to Environment (1997). Priority municipalities' urban areas) -'minimize/eliminate' for interinstitutional which must reflect Agenda 21 competitive tensions among cooperations which promote federative units for the use logic; In environment, sustainable development. interinstitutional cooperation and control of environmental limits the municipality to services 'environmental protection'.

Figure 1. Federative entities and interests in Brazil (Constitution of 1988).

Source: Basic Guide for Management of Municipalities, 2008. Compiled by the author.

However, from the perspective of this article, the most significant outcome of the conference was the establishment of *Agenda 21*. As the summit's main document, *Agenda 21* outlined a series of programs considered fundamental instruments for the development of public policies at all levels, benefiting local initiatives (Guimarães, 1997). It redefined environmental policy options and the role of the Brazilian state across its multiple levels of governance. Despite increased institutionalized decentralization concerning environmental and ecological sustainability issues, the formal establishment of a ministry *stricto sensu*—which, in a republican and federative sense, serves as the most significant representation of the sector to be supported by public policies—only materialized in 1999, during the second administration of Fernando Henrique Cardoso, reflecting the growing complexity of environmental management today (Figure 2).

Figure 2. Changes in the conceptions on environment and institutional competences in Brazil after 1970.

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SEMA (Environment National Bureau) subordinate to the Ministry of Interior
1973 • Emilio Garrastazu Medici Government
•SISNAMA (Environment National System) subordinate to the Ministry of Interior
1981 • João Batista de Oliveira Figueiredo Government
1501
Ministry of Urban Development and Environment
1985 • José Sarney Government
Environment Bureau subordinate to the Presidency
1990 • Fernando Collor de Mello Government
Ministry of Environment and Amazonia Legal
1993 • Itamar Franco Government
- Italiai Franco Government
Ministry of Environment, Water Resources and Amazonia Legal
1995 • Fernando Henrique Cardoso Government
Ministry o Environment
1999 • Fernando Henrique Cardoso Government
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Source: http://www.mma.gov.br. Access on January 3, 2014. Edited by author.

Human complexities in the political networks of territories

In this regard, it was only at the beginning of the 21st century, with the creation of the Ministry of the Environment (MMA, in Portuguese), that environmental issues began to be treated as a distinct sector in public policy decisions. The introduction of environmental variables became relevant criteria in political-economic decision-making and project financing by official development agencies. The federal government, states, and municipalities adopted a policy of responsibility and partnership through dialogue, persuasion, and public awareness to achieve optimized natural resource management (Sousa, 2007). The Ministry of the Environment (Ministério do Meio Ambiente, MMA) transferred, either wholly or partially, the planning and execution of environmental policies to states, municipalities, NGOs, and other public and private entities. These policies are implemented by public authorities and multilateral agencies.

In 2002, the Rio+10 Environmental Conference took place in Johannesburg, South Africa, followed by the Rio+20 Conference in 2012, where countries reconvened in Rio de Janeiro. During both conferences, opinions varied regarding the 'advances' brought about by international guidelines in the creation of public policies. While these policies aimed to address ecological and environmental challenges worldwide, they also raised concerns about the persistence of poverty, resource scarcity, and environmental destruction. The problems, discussions, and analyses generated a vast body of literature, research, conferences, and agreements that can be studied by those interested in assessing the impact of these conferences on both global and Brazilian society, as well as the expectations and obstacles they encountered.

For example, in 2022, the State of Rio de Janeiro implemented initiatives to promote sustainability, such as Rio2030 and the "Inclusive and Sustainable Rio" project. That year, the Government of the State of Rio de Janeiro launched the Official Rio2030 Events Calendar with an opening ceremony on World Water Day and signed a partnership with UN-Habitat to assist all 92 municipalities in the state in becoming more sustainable. The "Inclusive and Sustainable Rio" project aims to advance the Sustainable Development Goals (SDGs) through three key action paths: Informed Rio, Resilient and Sustainable Rio, and Inclusive Rio. These initiatives include the creation of an SDG Observatory and the training of municipal and state managers and technicians.

However, institutional discussions on environmental policies have grown increasingly complex over the past decade (2011–2021), particularly as ecology and environmental concerns have become integral to transformative political projects affecting local development structures and interdependent federative agreements on "development sustainability". Sustainability can only be achieved through collaboration among management agents and organized social networks, each operating within its legitimate framework. In this context, it is essential to consider the role of territorial policy and the intersection of legislation enacted by both public authorities and private entities.

Possibilities and obstacles for sustainability in Brazil today

Ideal ecological and socio-environmental policies should encompass the multiple dimensions of human life in society—social, environmental, political, and economic. Territorial planning and governance should be guided by the principle of sustainability, understood here as the foundation for development models that safeguard the quality of life in all aspects. Thus, eco-environmental considerations should be integrated into the socio-spatial development policies of states, as implementing this dimension requires recognizing that all growth and sectoral adjustments are shaped by local, national, and global biophysical, cultural, and territorial contexts. For this reason, environmental concerns should align with broader societal perspectives, incorporating commitments to human rights, collective and individual autonomy, and the cultural identities of affected populations.

The 1988 Brazilian Constitution guarantees that an ecologically balanced environment is a common asset of the Brazilian people, making it the duty of both society and public authorities to protect and preserve it for future generations—though the interpretation of this mandate is often contradictory and misleading. In an effort to institutionalize this responsibility, large and mid-sized Brazilian municipalities have been working to establish environmental departments, agencies, and advisory councils to address public concerns and gradually assume responsibilities previously managed by federal and state entities. Moreover, these local governments play a crucial role in promoting sustainability by structuring territorial governance that reflects the capacities, limitations, and aspirations of their respective populations (Silva, 2013b).

Despite the so-called political-territorial democracy currently in place—one that has gradually shifted the national intelligentsia's perspective on prioritizing eco-environmental issues—numerous obstacles remain to adopting these practices in a politically integrative manner. Key sectors such

as health, education, industrial policy, agriculture, urban expansion, and tourism can only achieve sustainability if ecological and socio-environmental balance is maintained. Therefore, I highlight several aspects related to Brazil's bureaucratic and federal structures that must be addressed to ensure that sustainability is effectively integrated across all levels of society:

- Strengthening the institutional framework of the federal government regarding conceptions and standards for "quality of life" within Brazil's socio-cultural diversity.
- Expanding discussions on what constitutes "traditional populations", while more clearly defining and characterizing indigenous, quilombo, and extractivist communities.
- Recognizing the historical land rights of social groups and assigning public authorities the
 responsibility for regulating and consolidating the political achievements of these communities
 in recent decades.
- Reducing the constraints on public spaces for political policymaking by adopting a geographically informed approach to legislation that considers the distinct needs of different groups.
- Reassessing the territorial architecture (e.g., river basins, zoning, regional and eco-economic structures) to challenge Brazil's traditional federalism, which prioritizes legal territorial demarcations over the actual scale of spatial events (Silva, 2012, 2013a, 2016, 2020, 2023).
- Addressing territorial inequalities and institutionally recognizing committees, districts, consortia, regions, and zones that actively engage in solving ecological challenges related to environmental services (Morais & Silva, 2021)...
- Reforming the power dynamics among the entities that constitute Brazil's political-institutional system (federal government, states, and municipalities), which currently function in a hierarchical manner (Figure 3) rather than through an interdependent and collaborative framework (Figure 4), as suggested by Wright (1988).
- Rethinking the complexity of national governance to ensure the effective implementation of eco-environmental policies. Only through such reforms can policy decisions be clear, sustainable, and socially accepted at all levels.
- Allocating substantial resources to mass environmental education programs capable of reshaping ideological perspectives and fostering more ethical socio-spatial development projects beyond local boundaries (Grün, 1996).
- Recognizing that societal transformations are specific, interconnected, and shaped by
 diverse processes. While contradictions and unresolved issues will always exist, they must
 be addressed at the management level to prevent social, political, and institutional stagnation.
 Society is complex—ordinary yet unique, global yet local—offering an array of possibilities
 where progress depends on a deeper understanding of contradictions.

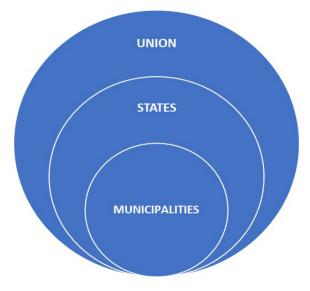
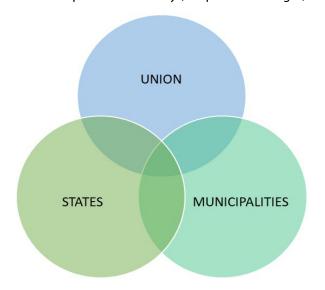


Figure 3. Hierarchical Authority (Adapted from Wright, 1988)

Figure 4. Interdependent Authority (Adapted from Wright, 1988)



CONCLUSIONS

Environmental policies that gained momentum in Brazil after RIO-92 have reached a stage where they can no longer be considered secondary within the institutional policies of the federative Union. The commitment of the Union, states, municipalities, the market, and civil society to embracing new challenges in social practices requires continuous evaluation by researchers to analyze both their origins and consequences. Political geography seeks to guide reflection and adjustment of the progress made thus far, aiming to expand the political arena (Castro, 2009, 2013). Given the ambiguities and contradictions between development and sustainability, these concepts reveal their polysemic nature. Their meanings remain contested, undergoing constant construction and deconstruction, with unpredictable outcomes characteristic of ongoing democratic processes worldwide.

REFERENCES

- Baranyai, G. (2007). Management of civil solid waste in the South Transdanubian Region. *Modern Geográfia*, 2(4), 1–15.
- Becker, B. (1993). A Amazônia pós ECO-92 [The Amazon after ECO-92]. In M. Bursztyn (Ed.), *Para pensar o desenvolvimento sustentável* (pp. 129–143). Brasiliense.
- Becker, B. (2007). *Amazônia: geopolítica da virada do III milênio* [Amazon: geopolitics at the turn of the third millennium]. Garamond.
- Bredariol, C. (2001). Conflito ambiental e negociação para uma política local de meio ambiente [Environmental conflict and negotiation for a local environmental policy]. [Doctoral dissertation, Universidade Federal do Rio de Janeiro/COPPE].
- Castro, I. (2009). Geografia e Política: território, escalas de ação e instituições [Geography and Politics: territory, scales of action and institutions] (2ª edição). Bertrand Brasil.
- Castro, I. (2013) Território do Estado; divisão ou fragmentação? Argumentos para um debate necessário [State territory; division or separation? Arguments for a necessary debate]. In A. Fonseca et al. (Eds.), Estado, Território e a Dinâmica das Fronteiras: reflexões e novos desafios (pp. 33–52). UFBA.
- Darányi, V., & Gálosi-Kovács, B. (2011). Environmentally conscious settlement development as a tool for creating a more livable settlement environment. *Modern Geográfia*, 6(3), 44–72.
- Ferreira, L. (1998). A Questão Ambiental: Sustentabilidade e Políticas Públicas no Brasil [Environmental Issue: Sustainability and Public Policies in Brazil]. Boitempo.
- Glied, V., & Barkóczi, Cs. (2013). Sustainability in urban development strategies in Southern Transdanubia. *Modern Geográfia*, 8(2), 1–46.
- Goldemberg, J., & Barbosa, L. (2004, November). A legislação ambiental no Brasil e em São Paulo [Environmental legislation in Brazil and São Paulo]. *Eco 21*, http://www.eco21.com.br/textos/textos.asp?ID=954
- Grün, M. (1996). Ética e educação ambiental: A conexão necessária. Guia Básico para Gestão nos Municípios. Apoio à Gestão Municipal [Ethics and environmental education: a necessary connection. Basic Guide for Management in Municipalities. Support for Municipal Management]. Papirus.
- Grün, M. (2007). Em busca da dimensão ética da educação ambiental [In search of the ethical dimension of environmental education]. Papirus.
- Guimarães, R. (1997). Desenvolvimento sustentável: da retórica à formulação de políticas públicas [Sustainable development: from rhetoric to the formulation of public policies]. In B. Becker & M. Miranda (Eds.), *Geografia política e desenvolvimento sustentável* (pp. 126–145). EdUFRJ.
- Kovács, Gy. (2013). Appearance of sustainable development elements in urban development strategies in Southern Transdanubia. *Modern Geográfia*, 8(1), 37–50.

- Leis, H. (2004). A Modernidade Insustentável: as críticas do ambientalismo à sociedade contemporânea [Unsustainable Modernity: environmentalism's criticisms of contemporary Society]. CLAES/Coscoroba Ediciones.
- Magrini, A. (2001). Gestão Ambiental [Environmental Management]. PPE/ COPPE/ UFRJ.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). *Os Limites do Crescimento* [The Limits to Growth]. Perspectiva.
- Morais, M., & Silva, A. (2021). Political architectures in the municipality of Varre-Sai (Brazil): for in 'specialty coffees' production management. *Royal Society Open Science*, 8, 201874, 1–11. https://doi.org/10.1098/rsos.201874
- Rodrigues, J., Monteiro, L., Silva, A., Ribeiro, L., Riberio, R., & Steiman, R. (Eds.). (2022). Os desafios e os novos debates na Geografia Política Contemporânea II: a América Latina e o Brasil [Challenges and new debates in Contemporary Political Geography II: Latin America and Brazil]. Terra Escrita.
- Silva, A. (2012). Novas arquiteturas intergovernamentais para a gestão do território fluminense: desafios de um Rio de Janeiro federativo [New intergovernmental architectures for managing the territory of Rio de Janeiro state: challenges of a federative Rio de Janeiro]. In G. Marafon et al. (Eds.), *Rio de Janeiro: um território em mutação* (pp. 78–103). Gramma Livraria e Editora.
- Silva, A. (2013a). Arquiteturas territoriais nos espaços político-administrativos brasileiros: possibilidades e entraves dos zoneamentos ecológico-econômicos (ZEE) como estratégia sustentável de gestão de unidades municipais e regionais [Territorial architectures in Brazilian political-administrative spaces: possibilities and obstacles of ecological-economic zoning (EEZ) as a sustainable management strategy for municipal and regional units]. In A. Silva et al. (Eds.), *Metropolização do espaço, Gestão territorial e Relações urbano-rurais* (pp. 313–336). Editora Consequência.
- Silva, A. (2013b). Zoneamentos Ecológicos Econômicos (ZEE): arquiteturas políticas locais da administração pública brasileira para as sustentabilidades dos territórios [Ecological Economic Zoning (EEZ): local political architectures of Brazilian public administration for the sustainability of territories]. *Revista GeoNorte*, 7, 1748–1769.
- Silva, A. (2016). Geografia Política, *Geopolítica e Gestão do Território: racionalidades e práticas em múltiplas escalas* [Political Geography, Geopolitics and Territorial Management: rationalities and practices at multiple scales]. Gramma.
- Silva, A. (2020). Cooperando 'verticalmente' e participando 'horizontalmente': por governanças metropolitanas sustentáveis no Rio de Janeiro [Cooperating 'vertically' and participating 'horizontally': for sustainable metropolitan governance in Rio de Janeiro]. *Revista da ANPEGE*, *16*(50), 190–209. https://doi.org/10.5418/ra2020.v17i30.10605
- Silva, A. (2023). Political geography, geopolitics and territorial management Brazilian perspectives. In G. Silva (Ed.), *Geography and Environment: state policies in the configuration of sustainabilities in Brazil* (pp. 289–308). Editora Autografia Edição e Comunicação Ltda.

Modern Geográfia vol. 20, Issue 2.

Sousa, A. (2005). A evolução da política ambiental no Brasil do sec. XX [The evolution of environmental policy in Brazil in the 20th century]. *Revista Brasileira de Ciências Políticas*, 34–56.

Théry, H. (2005). Situações da Amazônia no Brasil e no continente [Conditions of the Amazon in Brazil and on the continent]. *Revista Estudos Avançados*, 19(53), 37–49.

Wright, D. (1988). Understanding intergovernmental relations. Brooks/Cole.

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