

Editorial

**Innovation, Creative Destruction, and Sustainable
Governance: Theoretical Perspectives and Pathways toward
COP30**

*Inovação, Destruição Criativa e Governança Sustentável:
Perspectivas Teóricas e Caminhos rumo à COP30*

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1. Introduction

The awarding of the 2025 Nobel Prize in Economics to Philippe Aghion, Peter Howitt, and Joel Mokyr enshrined one of the most transformative paradigms in contemporary economic thought: that sustained growth arises from cycles of innovation that destroy old structures and create new forms of productivity, value, and social organization. Originally formulated in the early 1990s and further developed in subsequent decades, this theory now offers a decisive interpretive framework for understanding the challenges of ecological transition, innovative public policies, and global governance oriented toward sustainability.

According to Aghion and Howitt (1992), innovation is an endogenous process, socially conditioned and institutionally mediated, in which each technological advance

replaces the previous one, paving the way for new trajectories of growth and well-being. From this perspective, creative destruction is the driving force of economic progress, transforming obsolescence into opportunity and risk into learning.

Mokyr (2005, 2016) complements and deepens this view by demonstrating that progress is not explained merely by technical invention but by the consolidation of a *culture of growth*—an institutional and cognitive environment that values knowledge, experimentation, and continuous learning. For the author, modern growth emerges from a knowledge regime that connects propositional (scientific) knowledge to prescriptive (technical) knowledge, reducing access costs to information and multiplying its social applicability. Modern economies, therefore, rest not only on the accumulation of capital but on the accumulation of useful knowledge, legitimized by institutions that make it accessible, replicable, and cumulative.

This interpretation is reinforced by Begović (2017), who emphasizes that Mokyr’s originality lies in identifying the culture of growth as an institutional and cognitive transformation that legitimized knowledge as the central productive force of modernity. According to the author, Europe pioneered the development of an open, competitive, and cumulative “market of ideas,” in which intellectual contestability and merit-based recognition created the conditions for the emergence of Schumpeterian growth. Thus, modern progress resulted not only from economic or institutional incentives but also from the consolidation of an ethos of curiosity, experimentation, and trust in science as a vector of prosperity (Begović, 2017).

Mokyr (2005) further shows that the Industrial Revolution was preceded by an intellectual transformation, the Industrial Enlightenment, which institutionalized curiosity and belief in progress. This process gave rise to networks and institutions of knowledge such as scientific academies, universities, and technical societies, which facilitated the circulation of ideas and the legitimization of innovation as a public good. Such dynamics expand Aghion and Howitt’s neo-Schumpeterian framework by revealing that innovation depends not only on research investment but also on ecosystems of knowledge and cognitive governance capable of connecting science, technology, and social values.

The theory of creative destruction, coined by Schumpeter (1934), serves as the direct antecedent to this neo-Schumpeterian and cognitive structure. For Schumpeter, economic development stems from “new combinations” introduced in the market—new products, processes, markets, and organizational forms that replace the previous ones and generate cycles of expansion and recession. This mechanism, far from representing collapse, constitutes the true engine of economic and social progress.

In the contemporary context, creative destruction is not limited to the business sphere; it also manifests itself in public administration, where digitalization, automation, and transparency reshape the ways of governing and producing public value (Schumpeter, 1934). Innovation, in this sense, ceases to be merely an economic vector and becomes a civilizational process of continuous reconstruction, in which knowledge, institutions, and culture become the foundations of sustainable and regenerative governance.

The Conferences of the Parties (COPs), under the United Nations Framework Convention on Climate Change (UNFCCC), now represent a concrete manifestation of this process of creative destruction on an institutional and planetary scale. In each negotiation cycle, old power structures, productive patterns, and governance models are questioned, reformulated, and replaced by new arrangements based on multisectoral cooperation and shared knowledge. As Aghion and Howitt demonstrate, innovation is endogenous and socially mediated; in the case of the COPs, it translates into the reconstruction of deliberative processes and the emergence of more inclusive and cognitive global governance.

A recent study by Bach, Keller, Müller, Schleussner, and Bolton (2025) confirms this transition by showing that the COPs have become spaces of institutional experimentation, where the participation of non-state actors, NGOs, universities, Indigenous peoples, youth movements, and companies has been redesigning the networks of influence and diffusion of climate ideas. The authors also identify that this new governance architecture remains strained by structural asymmetries, such as the significant presence of fossil fuel lobbies and the underrepresentation of Global South countries. Even so, the advance of citizen science, the proliferation of side events, and the strengthening of alliances for fossil fuel divestment reveal that institutional innovation is

underway. The COPs thus become laboratories of global creative destruction, where old forms of governing and producing public value give way to new knowledge economies, climate justice, and sustainability as a civilizational principle.

The articulation between creative destruction and the culture of growth allows us to understand that the advancement of global sustainability depends both on the technological capacity to innovate and on the institutional willingness to reinvent itself. The knowledge economy and new forms of governance emerge as responses to the environmental, economic, and social crises that challenge traditional models of development. It is in this context that the Conferences of the Parties (COPs) assume a strategic role, as they materialize, on the plane of international politics, the same Schumpeterian principle of creative substitution by promoting the reconstruction of paradigms of production, consumption, and global cooperation. Each cycle of climate negotiations expresses a moment of institutional destruction and creation, in which new ideas, actors, and alliances reshape the mechanisms of governance and public value creation. The COPs, therefore, symbolize the point of convergence between theory and practice, serving as the space where innovation, science, and politics intersect to redesign the foundations of contemporary sustainable governance—the theme to be examined next.

2. The Conferences of the Parties and the Global Climate Governance Agenda

The Conferences of the Parties (COPs), held annually under the United Nations Framework Convention on Climate Change (UNFCCC), constitute the main international forum for deliberation on the climate crisis and global environmental governance. More than diplomatic meetings, the COPs have established themselves as arenas of institutional experimentation and political innovation, where consensus is built and the foundations of sustainable development are continuously reconfigured. The diversity of actors involved, including states, corporations, universities, civil society organizations, Indigenous peoples, and international agencies, reflects the multisectoral and inclusive nature of these negotiations, which aim to reconcile economic growth, social justice, and ecological balance under a logic of global cooperation.

The main themes discussed at the COPs are organized around eight interdependent axes of climate action, reflecting the complexity of the contemporary sustainability agenda:

1. Climate Change Mitigation – focused on reducing greenhouse gas (GHG) emissions and promoting just energy transitions based on renewable sources and the decarbonization of industry, transport, and agriculture.
2. Climate Adaptation – dedicated to strengthening the resilience of ecosystems and communities in the face of the observable impacts of global warming, emphasizing sustainable infrastructure, adaptive agriculture, and water and food security.
3. Climate Finance – aimed at mobilizing resources to support developing countries in the ecological transition through instruments such as the Green Climate Fund, the Loss and Damage Fund, and green bonds.
4. Carbon Market (Article 6 of the Paris Agreement) – focused on defining rules and standards for the international exchange of carbon credits between countries and companies, ensuring environmental integrity, traceability, and transparency.
5. Nature, Forests, and Biodiversity – committed to the protection of ecosystems and the promotion of zero-deforestation policies, recognizing the strategic role of Indigenous peoples and traditional communities in environmental conservation.
6. Climate Justice and Just Transition – ensuring that mitigation and adaptation measures occur equitably, respecting human rights, cultural diversity, social inclusion, and the generation of green jobs.
7. Climate Governance and Transparency – focused on strengthening accountability mechanisms and integrating climate goals into public budgets and corporate reports, in alignment with international standards such as IFRS S2, ISSB, and the Global Stocktake.
8. Science, Innovation, and Technology – dedicated to scientific cooperation, technology transfer, and the development of innovative solutions, such as climate-oriented artificial intelligence, green hydrogen, and the bioeconomy, capable of accelerating the transition to a low-carbon economy.

These axes express the collective effort of institutional and productive transformation that the COPs have been fostering since 1995. As Bach et al. (2025) emphasize, the conferences have evolved into laboratories of inclusive governance in which science, activism, and the private sector interact dynamically, albeit within contexts still permeated by tensions and power asymmetries. The research shows that, despite the persistent presence of fossil fuel groups, there is a growing influence of scientific and environmental networks that drive new coalitions toward the elimination of fossil fuels and the advancement of global climate justice.

Looking toward COP30, to be held in Belém do Pará, Brazil, in 2025, these transformations acquire symbolic and strategic meaning. In the Amazonian context, the conference invites Brazil and the world to rethink development through a regenerative paradigm, in which technological innovation, science, and culture consolidate as the pillars of sustainable and inclusive governance.

Understanding these axes and institutional dynamics provides the context for the papers gathered in this special issue, which address, from different perspectives, the challenges and opportunities of climate governance within a scenario of creative destruction and institutional renewal.

Over nearly three decades, the Conferences of the Parties have become a continuous process of institutional creative destruction, in which paradigms of governance, production, and international cooperation are successively reconfigured in response to global climate challenges. This dynamic reflects not only the search for technical solutions but also a broader cultural and political transformation, marked by the emergence of new forms of knowledge, participation, and environmental accountability. Within this same horizon, RP3 – *Revista de Pesquisa em Políticas Públicas* – positions itself as a space for reflection and scientific co-production, in which academia dialogues with real processes of innovation and institutional reform observed in the COPs. The articles in this special issue reflect, across different scales and analytical perspectives, the effects of this transformation, discussing how sustainability, science, and public governance intertwine in the construction of new development models consistent with the ecological transition and the culture of sustainable growth that defines the twenty-first

century.

4. COP30 Special Edition: Sustainable Governance, Science, and Creative Destruction

RP3 – *Revista de Pesquisa em Políticas Públicas* – launches its COP30 Special Edition, dedicated to reflecting, from multiple perspectives, on the pathways of sustainable governance, the integration of science and policy, and the valorization of environmental and social assets.

The articles gathered in this special issue illustrate how Brazilian science and public policy have responded creatively and critically to the challenges of sustainability. The study “*The Steps Model and Stakeholders to Observe the Intensity of Participation in the New Public Governance*”, by Antonia Danniele Jeska Torres de Oliveira and Rodrigo Santaella Gonçalves, presents an analytical model to measure the intensity of democratic participation in public policies, using social network mapping to understand the relationships among actors and the legitimacy of decision-making processes.

In “*Science and Politics in the Coproduction of Knowledge in the Policy Cycle: Epistemological Challenges and Evidence-Informed Dialogue in the Multilateral Governance of the COP30 Agenda*”, Fernando Antonio Hello analyzes the tensions between science and politics, advocating for the coproduction of knowledge and evidence-informed dialogue as central elements to strengthen multilateral governance and the effectiveness of climate public policies.

The article “*Integrating the SDGs into Brazil’s Public Budget: Pathways for Sustainable Governance toward COP30*”, by Pedro de Moraes Godinho and Diana Vaz de Lima, discusses the integration of the Sustainable Development Goals (SDGs) into federal planning and budgeting, focusing on the 2024–2027 Multi-Year Plan (PPA). It identifies methodological advances and challenges related to traceability and budgetary coherence in the transition toward green fiscal governance.

In “*Circular Economy: An Effective Response to Climate Change*”, Cláudia Aparecida Avelar Ferreira, Adriana Almeida do Carmo, Simone Costa Nunes, Renata Cristina Gomes Batista, and Armindo dos Santos de Sousa Teodósio analyze the role of

the circular economy in climate change mitigation, highlighting the contribution of waste picker organizations to CO₂ emission reductions, social inclusion, and the creation of green jobs.

The study *“Environmental Economic Valuation and the System of National Accounts for Green Gross Domestic Product Calculation: A Bibliometric Analysis between 1945 and 2022”*, by Sérgio Saraiva Nazareno dos Anjos, Alexsandro Barreto Gois, Fátima de Souza Freire, and Jorge Madeira Nogueira, presents a bibliometric analysis of the evolution of environmental economic valuation and the integration of natural capital into the System of National Accounts. It discusses the conceptual and methodological foundations for calculating the Green Gross Domestic Product (Green GDP) and the role of the System of Environmental-Economic Accounting (SEEA).

The article *“The Impacts of the European Union Deforestation-Free Regulation (EUDR) on the Brazilian Agri-Food System: Global Governance, Regulatory Sovereignty, and Climate Justice”*, by Isadora Gomes da Silveira and Susan Elizabeth Martins Cesar de Oliveira, critically examines the effects of the European Union Deforestation-Free Regulation (EUDR) on the Brazilian agri-food system, discussing the tensions between global governance, regulatory sovereignty, and climate justice in the value chains of strategic commodities such as soy, beef, cocoa, and coffee.

In *“Just Transition and Low-Carbon Agriculture: Lessons from Brazilian Pig Farming for the COP30 Climate Agenda”*, Heris Coutinho Vieira investigates how integrated economic instruments — such as carbon pricing, green credit, payments for environmental services (PES), and technical assistance — can promote a just and low-carbon transition in Brazil’s pig farming sector, balancing efficiency, equity, and environmental integrity.

Closing the collection, *“COP30 Challenges: Where Are Employment and Income in the Brazilian Bioeconomy (2011–2021)”*, by Edson Geraldo Nascimento da Paz and Jorge Madeira Nogueira, analyzes the Brazilian bioeconomy from the perspective of employment and income, using RAIS microdata to measure the participation of the 100% BIO core in formal employment and the wage bill between 2011 and 2021. The results show relative stability but reveal significant regional and sectoral reconfigurations,

highlighting the role of agro-industrialization and value aggregation across territories.

Converging around the COP30 agenda, these works outline a comprehensive panorama of public governance and sustainable innovation, demonstrating how creative destruction manifests itself in science, the economy, and politics. Together, the articles reaffirm RP3's commitment to the production of applied and interdisciplinary knowledge, capable of inspiring new practices in public management, new metrics of socio-environmental value, and a regenerative and inclusive governance model for Brazil and the world.

5. Final Considerations

The analysis developed here shows that the global ecological transition is intrinsically linked to a process of institutional creative destruction, in which old productive, cognitive, and political structures give way to new ways of thinking, measuring, and governing development. Inspired by the contributions of Schumpeter (1934), Aghion and Howitt (1992), and Mokyr (2016), this transition reveals that sustainability is not limited to technological substitution but involves the emergence of a regenerative culture of growth guided by knowledge, cooperation, and social innovation.

The Conferences of the Parties (COPs), within the framework of the UNFCCC, represent the practical translation of this paradigm on a global scale. They constitute spaces of experimentation and collective learning, where science, politics, and society converge in the search for responses to contemporary climate dilemmas. In each cycle, the COPs reformulate concepts of value, transparency, and responsibility, driving the creation of instruments such as the carbon market, climate funds, and environmental governance and disclosure metrics. In these forums, creative destruction manifests not only through the substitution of technologies but also through the redefinition of principles of legitimacy and climate justice.

The studies gathered in RP3's COP30 Special Edition confirm that this transformation is neither linear nor homogeneous but plural and contextual. They demonstrate that sustainable governance is built simultaneously across multiple dimensions — institutional, economic, epistemological, and cultural — and depends on

arrangements capable of integrating scientific knowledge, democratic participation, technological innovation, and environmental value metrics. Addressing topics such as participation and decision networks, SDG integration into public budgeting, circular economy, environmental valuation, regulatory sovereignty, and bioeconomy, the articles show that advancing sustainability requires both new analytical tools and new forms of cooperation and accountability.

The upcoming COP30 in Belém do Pará reinforces the symbolism of this agenda. Hosting a global conference in the heart of the Amazon signifies recognizing that the future of climate governance depends on listening to new actors, knowledges, and territories. Brazil has the opportunity to demonstrate in practice that it is possible to reconcile economic growth, social inclusion, and ecological integrity, consolidating a model of public and corporate governance grounded in evidence, participation, and innovation.

In sum, the convergence between theory and practice, between creative destruction and sustainability, and between science and politics outlines the contours of a new climate knowledge economy. In this new paradigm, creativity ceases to be merely a market attribute and becomes a civilizational foundation for a new era of prosperity — a prosperity measured not only by GDP but by the ability to regenerate systems, expand freedoms, and build shared futures. COP30, and the debates leading up to it, invite the world to rethink development through the lens of this creative regeneration, in which sustainability is no longer a constraint but the very condition for the continuity of life and innovation.

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