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# Brazil and its disarranged climate policy towards COP 27

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*Editorial*

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In recent decades, the issue of climate emergency began to permeate Brazilian environmental policy. Due to its high biodiversity and environmental importance to the world, Brazil started to create and manage public actions to combat climate change and adapt and regulate extreme weather events (JACOBI e ARRUDA FILHO, 2021). Historically, the National Climate Change Program was created in 1996, the Brazilian Forum on Climate Change (FBMC) in 2000, and the National Climate Change Policy (PNMC) of the Interministerial Commission on Global Climate Change in the following years. In parallel with this, Brazil's participation in the COPs has always been proactive and purposeful, with the country having gained prominence in several of the meetings, especially in the proposal to create the Clean Development Fund, an embryonic idea of the later Clean Development Mechanism, the current base of the Carbon Credits Market in the world.

However, the setback that the current administration of the Federal Government imposes on the Brazilian climate issue is heartbreaking and puts the country's entire course of climate policy at risk. The crisis in the Ministry of the Environment, together with speeches with negationist and unscientific content, made the country's participation in COP 26, which took place in Glasgow in 2021, insignificant and retrograde. With a speech of "correction" of the environmental failures committed previously in the Brazilian environmental issue, representatives of the current government participated in the event in order to try to diminish the gigantic emissions of greenhouse gases that occurred during the peak of the pandemic period, going against the other countries. However, with promises to reduce emissions by half by the year 2030 and to eliminate deforestation by 2028, the current administration enters with a speech that strongly clashes with the incentive to bills that regularize deforested areas and directly affect indigenous territories.

With perspectives of slight improvements concerning participation in previous years, the Chamber of Deputies evaluated the agreements on zero deforestation and a 30% reduction in methane emissions by 2030, both non-mandatory, signed last year, as technical advances in this regard, although with criticism of the excessive influence of agribusiness in the negotiations. Six months later, however, such agreements are not being complied with, and the amount of deforestation increased to over 1000 km<sup>2</sup> in the Amazon in April alone, according to National Institute for Space Research (INPE, 2022).

Furthermore, under this scenario, Brazil is heading to COP 27, to be held in November in Sharm el-Sheikh, Egypt. From a political perspective of a dictatorial government that came to power through a coup in 2013, the host country has severe restrictions on public demonstrations, common in other COPs, in addition to persecuting the press, raising the alarm for members of civil society who will participate. Brazil intends to reinforce the discourse of the carbon credits market as the only and main alternative for the solution of the climate problem in the world, even though the process of regulation of this mechanism still presents failures of communication with civil society and, even with members of the private sector, its leading supporter. The forecast is that the mistakes that emerged from the country's participation in 2019 at COP 25, reinforced more and more in the following years, will still echo at the next meeting. The hope is that the social

mobilization of the current generation of young people interested in the planet's climate future, together with their influencing and catalyzing power of social networks, will be an alternative for expanding the debate on the subject and opening up the dissemination of information for the general population. In a scenario of regression and ignorance, research on the climate emergency is even more necessary.

This way, we invite everyone to enjoy reading the new articles published corresponding to the 2022 Annual Volume. As always, we thank the entire editorial team of *Journal Ambiente & Sociedade* for their fundamental contribution to ensuring the continuity of the publication.

Opening this new group as Original Articles, the authors *Martha Lucía Ordóñez Serna* and *Olga Lucía Sanabria Diago*, in the article **Socio-environmental comparison in indigenous agricultural productive systems: Tontotuna, Totoró-Colombia and Tsotsil, Chamula-Mexico**, present a comparison of conservation practices associated with the management of the family agricultural production system in the Tontotuna indigenous peoples in Colombia and Tsotsil in Mexico. The authors conclude that such practices strengthen the identity of each indigenous people, facing the problems of survival and contributing to the reduction of hunger by establishing the bases for food security.

In the article: **How Nature Affects The Behavior of ADHD Children: A Case Study in Northeastern Brazil**, the authors *Mônica Maria Siqueira Damasceno*, *Jane Marcia Mazzarino*, and *Aida Figueiredo* analyze the profile of six children, before and after interventions in nature, in order to identify possible changes in behavior. As a result, they showed greater motivation for studies, better understanding and compliance with the rules, expansion of states of tranquility, greater receptivity to social contact, decrease in aggressiveness, hyperactivity, and impulsivity, and greater tolerance with themselves and with others.

To evaluate the level of participation, sustainability, communication and self-assessment of environmental education programs/projects, the authors *Alessandra Chacon-Pereira*, *Elza Neffa*, and *Luciene Pimentel da Silva* created the System of Evaluation of Environmental Education Programs and Projects for Water Resources Management (SAPEA-Água). They consider that it can support the evaluation process and increase the quantity, quality and effectiveness of environmental education programs/projects. In the article: **System for the Evaluation of Environmental Education Projects focused on Water Resources Management (SAPEA-Água)**.

The authors *Adalberto Mantovani Martiniano de Azevedo*, *Jutta Gutberlet*, *Solange Dias de Araújo*, and *Fabiano Harada Duarte*, in the article **Impacts of Covid-19 on organized waste pickers in selected municipalities in the State of São Paulo**, carried out a study with waste picker organizations in 32 municipalities in the State of São Paulo. They seek to analyze the impacts of the Covid-19 Pandemic on its activities and highlight structural and systemic problems in the interactions of the collectors, which gained prominence with the crisis, highlighting their difficulties, achievements, and claims as a social movement.

In the article: **Mapping of ecosystem services provided by the Paraíba do Sul river alluvial plains APA**, the authors *Gabriela dos Santos Simões*, *Fabiana Alves Fiore*,

and *Lívia Corrêa Silva* carried out a study to obtain the environmental perception of local key actors - public agents, researchers and residents of the APA. The results reiterated the importance of the region, already legally protected, to ensure the local environmental quality and identified that the priority SEs are: freshwater, photosynthesis, nutrient cycle, local microclimate, and regulation of water flows.

In the article: **Teaching Environmental Impact Assessment in Brazil: is it just a ‘Make-believe’ approach?** the authors *Maria Rita Raimundo e Almeida, Fernanda Aparecida Veronez*, and *Anne Caroline Malvestio* analyze the teaching of EIA in Brazil from the teaching plans of subjects in Environmental Engineering courses and propose an analysis protocol. The results show that EIA teaching is present in all evaluated courses; however, the prevailing teaching profiles reveal a limited view. Furthermore, the weaknesses evidenced indicate that the teaching of EIA may be negatively influencing its practice and vice versa.

The authors *Vanalda Costa Silva, Rômulo Cesar Rezzo Pires, Hevellyn Esther Pereira Silva, Éliada Maria dos Santos Lopes, Álvaro Henrique Andrade Lira, Adauto Luis Moraes Pestana*, and *Jorge Luiz Silva Nunes* carried out a study to estimate the prevalence of spontaneous abortion in women on greater and lesser exposure to air pollution from vehicle traffic on the Island of São Luís-MA. The results point to a possible contribution of pollution as a risk factor in the etiology of spontaneous abortion. In the article: **Exposure to pollution during pregnancy and occurrence of miscarriage.**

In order to verify the level of Connection with Nature promoted in children, the authors *Damaris Teixeira Paz, Elisa Ferrari Justulin Zacarias*, and *Maria Inês Gasparetto Higuchi*, in the article: **Connection with Nature in children’s reference adults**, carried out a studio with country and teachers of primary education in public schools in Manaus-AM. The results showed that the formation area, age group, and frequency of contact with green areas of these adults green areas significantly differentiate their NC levels. They are also crucial in determining how often they take children to green areas.

The article: **Discarding and final destination of açaí in the Oriental Amazon - Brazil**, by authors *Lidiane de Vilhena Amanajás Miranda, Silas Mochiutti, Alan Cavalcanti da Cunha* and *Helenilza Ferreira Albuquerque Cunha*, evaluates how the disposal and final destination of açaí seeds occurs in the municipalities of Macapá and Santana-AP. The results showed that the disposal method does not depend on the size of the mixer; however, it is influenced by profit. However, disposal and destination are inadequate (53%) and still depend on specific management and legislation that result in environmentally sustainable alternatives.

The authors *Suiane Rodrigues Leão* and *Alvany Maria dos Santos Santiago*, in the article: **Tailings dam scenario: knowing to avoid new catastrophes**, observed the number of dams included in the PNSB, risk category, potential damage, emergency level, among others. The analysis of these data indicates that Minas Gerais is the state that has the largest number of dams included in the PNSB, with high CRI and DPA, with dams built by the upstream method and declared at emergency level 3, thus requiring redoubled attention and intervention to ensure its safety.

Intending to document the diversity of species and varieties in the management and exchange between ecological floors through the traditional vegetable garden, the authors *William Andrés Galvis Sarria*, *Martha Lucia Ordoñez Serna*, and *Olga Lucia Sanabria Diago* carried out an outline of qualitative analysis methods with tools ethnographic and ethnobotanical. As a result, they identified the traditional orchards representing articulating axes of the network of exchange of knowledge, practices, and plant materials. In the article: **Agrobiodiversity management in traditional high mountain orchard: Totoro indigenous reservation, Cauca - Colombia.**

In the article: **Climate change review and the CSS technology contribution to the climate mitigation challenges**, authors *Israel Lacerda de Araujo*, *Hirdan Katarina de Medeiros Costa*, and *Zen Makuch* discuss how carbon capture and storage (CCS) technology can contribute to solving the global climate challenge. They conclude that human activity regarding GHG has been the vector for defining the Anthropocene and has given rise to political concerns and international climate agreements, which encourage legal, institutional, and normative improvements.

In the article: **Perception of glacial retreat and climate change in Peruvian Andean communities: an interdisciplinary approach**, authors *Fredy S. Monge-Rodríguez*, *Christian Huggel*, and *Luis Vicuna* carried out a study of an interdisciplinary approach based on evaluated psychological constructs. The results show a relationship between the perception of glacial melt and climate change risk. Most of the community's inhabitants realize that the glaciers will shrink in the future, raising concerns about climate change risks.

Through critical discourse studies, the authors *María Angélica Mejía-Cáceres* and *Láisa Maria Freire dos Santos*, in the article: **Hegemonies and Resistances in Environmental and Science Teacher Education**, seek to understand the relationship between hegemony and emancipation in the formation of teachers. On the one hand, they found monographs made from a hegemonic perspective, such as management, and process time, among others; on the other hand, monographs that refer to the struggle, resistance, denunciation, community, and inclusion of popular masses that instigate insurgent practices.

To analyze the contributions of specialists, in the article: **Health impact assessment in the process of implementation of hydroelectric plants: methodological contributions**, the authors *Maria Assunta Busato* and *Márcia Grisotti*, carried out a survey with Brazilian specialists regarding the regions of implementation of hydroelectric plants using an electronic platform. The results indicate that, in AIS, the need to form interdisciplinary and multi-professional teams must be observed, the participation of the affected population, special attention to mental health, and consider scientific evidence.

Through a theoretical discussion, the authors *Marcos André de Oliveira*, *Márcio Santos Sepúlvia de Oliveira*, and *Anna Karolyne Souza Miranda* propose an accessible method to support decision-making regarding the applicability of repowering in small hydroelectric plants. The results show the environmental sustainability of the practice in the face of the limitations and challenges that currently involve the construction of large hydroelectric plants. In the article: **Sustainability as a perspective for the repowering of small hydroelectric plants in Brazil: estimation method.**

In the article: **Amazon, Frontier and Protected Areas: dialectic between economic expansion and nature conservation**, authors *Viviane Vidal da Silva* and *Ricardo Gilson da Costa Silva* analyze the expansion of the frontier in the south of the state of Amazonas, given the pressures of the State and the extractive savings to convert Protected Areas into capital space. Such expansion is not supported only by economic agents and society, but has the State as the main inducing agent, whose results indicate an increase in deforestation and disruption of environmental policy, configuring the restructuring of the border.

The authors *Gabriela Bertoletti Johann*, *Givanildo Silva*, *Sady Mazzioni* and *Rodrigo Moreira Casagrande*, in the article: **Sustainability as a perspective for the repowering of small hydroelectric plants in Brazil: estimation method**, investigated the impact of adopting sustainability practices on the performance of Brazilian industries in the furniture sector. The results indicated a positive relationship between operational and social practices and performance in sustainability and competitiveness. However, such behavior was not verified for environmental practices.

Seeking to contribute to studies on the adequacy of public policies, the authors *Afonso Celso Aldeia Caiazzo da Silva* and *Nélio Domingues Pizzolato* analyze and discuss the main policies in foreign markets that resulted in tax incentives, expansion, and promotion of new businesses in the transition from conventional to electric vehicles. Although it appears as the main alternative to improve energy efficiency, many countries have not yet implemented policies to streamline the transition of their fleets. In the article: **Using electric vehicles for freight transport purposes and challenges to such an implementation in Brazil**.

In the article: **Monkey, fish, bird and tourists: local actors and global contexts related to conservation in the Amazon**, authors *Eduardo de Ávila Coelho* and *Bernardo Machado Gontijo* focus on how some local groups deal with issues attributed by global agendas focused on forest preservation in two protected areas in the Brazilian Amazon. The authors highlight and reflect on how the forest is inhabited and managed and reveal how communities and institutions negotiate conflicting interests in the conservation and use of the environment.

The authors *Rafael da Silva Caldeira*, *Simone Lorena*, *Eduardo Monteiro Martins*, and *Sergio Machado Corrêa*, in the article: **Opportunities for GHG Emission Reductions in the Brazilian Graphic Industry Through a Mitigation Plan**, present the quantification of greenhouse gas emissions (GHG) of a printing industry in Brazil in the three years of 2016, 2017 and 2018, defining the base year as a reference for evaluating the results of a GHG Emissions Mitigation Plan. The simulated Mitigation Plan predicted a potential reduction of up to 50.3% of these emissions. The methodology follows the IPCC recommendations.

In order to evaluate the effectiveness of inclusion as a principle of good governance, the authors *Carolina Neves Souza*, *Evelynne Letícia SFC de Barros*, *Inaê Farias V. Dantas*, *Chiara Bragagnolo*, *Ana Cláudia M. Malhado*, and *Vanice F. Selva* analyzed institutional documents, conducted interviews with managers and counselors and applied 375 ques-

tionnaires to residents of Porto de Pedras and São Miguel dos Milagres - Alagoas. The results show an imbalance in the representativeness and influence of the sectors. The article: **Inclusion and governance in the managing Council of the Costa dos Corais Environmental Protection Area.**

The authors *Eduardo Viola* and *Vinicius Mendes*, in the article: **Agriculture 4.0 and climate change in Brazil**, introduce the debate on low-carbon sociotechnical transitions in Brazilian agribusiness based on the premise that a growing share of the sector adopts digital technologies in their business models, configuring a new productive paradigm. The article demonstrates technical, institutional, and political-economic challenges for each of these subsectors to move towards a low carbon economy, with sustainable agribusiness having had the best performance to date.

Finally, the author *Leticia Costa de Oliveira Santos* presents the book review: **The Commons in an Age of Uncertainty: Decolonizing Nature, Economy, and Society.** For the author, the text builds an alternative to two fields of reading about the commons: Conventional Wisdom and the Consensus of the Western Left. Its Radical Alternative lies in the centrality of land, autonomy, and justice from the Global South. It also develops the understanding of universal justice over land and contributes to discussions about contemporary commons by affirming the contemporaneity of relationship forms with the land.

We wish everyone a good read!

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