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# Interdisciplinarity: New Challenges in Complex Times

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We begin 2024 with volume 27 of the journal *Ambiente e Sociedade*, presenting themes that highlight the multiplicity of issues challenging a society confronted by climate emergency scenarios. We are living in very uncertain times, but at the same time a dramatic panorama of disasters in different parts of the planet year after year.

Global society has access to a multitude of data, projections, and facts confirmed by science that show a growing loss of climate balance. Reports from various organizations such as the World Meteorological Organization (WMO) give us facts that have become existential threats. In addition, documents published since 2009 by a group of renowned scientists from the Stockholm Resilience Centre (SRC) (Rockstrom *et al.*, 2009), show how nine planetary boundaries represent a reality of transgression that increasingly signals the risks of irreversibility of the damage caused to the planet since the Industrial Revolution.

These indicators have been widely disseminated and have created great repercussions in science, policy, and practice, from an interdisciplinary and intersectoral perspective. This confronts us that science has made progress in demonstrating the existence of critical thresholds and growing risks for people and ecosystems (Jacobi *et al.*, 2015).

Since 1997, the journal *Ambiente & Sociedade* has not only shared with its readers the importance of the hybridization of knowledge and cross-cutting approaches to understanding and explaining these processes but has also pointed to the emergence of new approaches that confront uncertainties and expand spaces for reflection, aimed at encouraging knowledge that is constantly changing to respond to the complexities and hybridization of the real world.

To foster yet another set of discussions and debates in the field of environmental and social issues from an interdisciplinary perspective, we open the first issue of 2024 of *Ambiente & Sociedade*, with Volume 27.

In the article **“Poetic images of the end of the world: art, eco-communication, and environmental perception”**, the author Ana Silvia Andreu da Fonseca analyzes which images about climate collapse are perceived by young Latin American audiences of environmental cinema. Based on data collection and analysis using a qualitative approach, and using the notions of discursive resonance and macro-trends in environmental education as her main concepts, the author observes that these images simultaneously refer to a discursive and poetic field, influencing the environmental perception of the group of young Latin Americans considered by the research.

The authors Patrícia Marques Santos, Claudio Belmonte de Athayde Bohrer and Marcelo Trindade Nascimento, in their article **“Impacts of changes in land use and cover on Atlantic Forest phytophysionomies”**, evaluate the landscape of the North and Northwest regions, determining the changes in forest cover by plant physiognomy, using MapBiomias collection 6 (1985-2020), using R and QGIS software. The results and discussions of the study identified that there was a reduction in forest cover losses between 1985 and 2020, as a result of the balance of gains in secondary vegetation that masked the losses of mature vegetation, with biodiversity losses. The authors point out that farming was the main factor causing this loss of vegetation in the north and northwest of Rio de Janeiro.

With the article entitled **“Overview of scientific publications on Payments for Environmental Services in Brazil”**, the authors Bartira Rodrigues Guerra, Stella Verdasca, Maria Rita Raimundo e Almeida and Victor Eduardo Lima Ranieri analyse and systematize information on the evolution of scientific publications on the subject of Payment for Environmental Services (PES) in Brazil. Based on a systematic bibliographic review, the article’s results point to i. the predominance of research that has developed case studies, with geographical limits that follow the administrative cut-offs and hydrographic basins; and, in terms of thematic analysis, a greater frequency of studies (18) on the viability of PES.

The article **“Conflicts and socio-environmental injustices in the Acaú-Goiana Extractive Reserve”**, written by Aline de Souza Souto, Virgínia Carmem da Rocha Bezerra, Glaciene Mary da Silva Gonçalves, Mariana Olívia Santana dos Santos and Aline do Monte Gurgel, analyzes the conflicts and socio-environmental injustices resulting from sugar cane in the Acaú-Goiana Extractive Reserve, in the state of Pernambuco (PE), in northeastern Brazil. By developing a case study with rural workers based on social cartography and documentary analysis, analyzed according to the categories of the Global Atlas of Environmental Justice (EJAtlas), the authors observed the emergence of new conflicts with the installation of enterprises that put pressure on the territory, adding to centuries-old problems such as sugar cane cultivation.

The article **“Brazilian Environmental Policy: shared responsibility and dismantling”**, by Cristiana Losekann and Raquel Lucena Paiva, reviews Brazilian environmental policy, analyzing its central mechanisms, based on bibliographical research and analysis of empirical documentary data. Based on three theoretical currents in the field of Political Theory that discuss the coordination of collective action, deliberation, and environmental justice. The authors concluded that the shared nature of responsibility in Brazilian environmental policy is the central focus of the changes that have been taking place, putting an important democratic dimension at risk.

Authored by John Marr Ditty and Maria Eugênia Totti, the article entitled **“Water governance: the complexity of interactive dynamics among stakeholder groups”** focuses on water management and aims to analyze the interactive dynamics of 10 stakeholder groups concerned with the management of a freshwater coastal lagoon system in Brazil. Based on the application of interviews and social network analysis to reveal and map the interaction dynamics between these groups with a stake in the management of water resources in this system, the results, in general terms, indicate that the interaction of the stakeholder groups was divided into two distinct clusters. One was positively correlated with political power, while the other was more dependent on resources, characterized by influence in decision-making and low interaction with other groups.

Also focusing on water resource management, in the article **“Integrated Water Resource Management in Colombia, a Historical Perspective”**, authors César Cardona-Almeida and Andrés Suárez aim to investigate the “integration” approach in regulatory arrangements in Colombia. By analyzing it from a historical perspective, they understand how society’s perception and management of the environment has evolved in this country.

The results of this study show that the notion of a complex and integrated environment is not exclusive to current public policies, but has been present for centuries.

To conclude this edition of articles, Naetê Barbosa Lima Reis, Tatiana Walter and Geraldo Márcio Timóteo, in their text “**Fisheries Management and Colonialism: deterritorialization and r-existences in the artisanal fishing community of Praia do Siqueira/RJ-Brazil**”, analyze the imposition of the closed season in the Araruama Lagoon, in Rio de Janeiro (RJ), Brazil, based on the narratives of the artisanal fishing community of Praia do Siqueira, located on its shores. Using non-extractivist/participatory methodologies, the authors generally concluded that the imposed fishing calendar intensifies processes of deterritorialization in the community in question; however, despite the violence, the spaces are permeated by practices of r-existence.

We wish you all a great read, in which you can delve into sensitive, complex and challenging socio-environmental issues.

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