

Editorial

Science and Brazil's responsibility in the environmental crisis

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It is not typical for a scientific journal to take a stand on circumstantial political aspects. However, given the seriousness of the institutional dismantling process and the disregard towards issues that structurally interfere with sustainability and the future of the environment in Brazil, *Sustainability in Debate* – SiD expresses, through this editorial, a wake-up call.

The year 2022 seems to reveal a series of weaknesses and civilizational dilemmas on a planetary scale. The Covid-19 pandemic has caused worldwide suffering for two and a half years and is now joined by a new threat to human health: monkeypox. In addition, a new, absurd, large-scale war in Ukraine exposes the fragility of coexistence between neighbours¹. Moreover, it also exposes the risks inherent to war: human and material losses, nuclear power plants in the firing line, increased food insecurity, massive displacement of populations, and devastation of the natural environment, among others. On top of all this, the worsening of the climate crisis has expressed itself in increasingly intense, frequent and territorial extreme events. In this general context, Brazil is responsible for containing the Amazon biome in its territory, which is essential in regulating the global climate.

Brazil's next elections will be able to democratically choose whether it prefers to follow the anti-environmental path or to resume its strategy of a command-and-control framework, education and practices aimed at a coexistence between the quality of the environment and the pursuit of the material well-being of its population. In the not-too-distant past, the country already played a leading role in the Paris Agreement, actively participating in the construction of goals and consensus and the fight against food insecurity and poverty, with former President Lula winning the World Food Prize in 2011 for its contribution to the fight against world hunger².

However, the country has become negatively notable in the international environmental scenario in recent years. Its notoriety grew due to several analysis requests, by the International Criminal Court, of alleged crimes against humanity perpetrated by the current President of the Republic of Brazil on account of his management of the pandemic. However, these initiatives failed in court, given the decision adopted in The Hague. It states that, as a general matter, communications related to Covid-19 would be classified as manifestly outside the jurisdiction of the Court³. In recent months, the focus has been on the increase in deforestation in the Amazon, but the debate continued in the International Criminal Court, increasing the repercussion and gravity of this issue.

A new petition delivered in May in The Hague brought evidence of crimes against humanity of the Brazilian president through the destruction of the Amazon and threats to indigenous people. The documents, endorsed by European institutions, come with the support of more than a million signatures from people pressing for action against him⁴. Although the complaint made by the consortium of Deutsche Umwelthilfe, Avaaz, Bourdon & Associates and AllRise was already filed in October 2021, new data came as a basis for the urgent petition to install the preliminary investigation. This movement is driven by the release of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) earlier this year. According to the report, carbon emissions continue to rise, which complicates meeting the targets set out in the Paris Agreement. Therefore, more than ever, mitigation measures are urgent to contain the increase in emissions.

Deforestation and forest fires are part of this context, and the heat wave and the destruction of the forest cover in the Northern Hemisphere only reveal the consequences, which are fed back by climate change. Stopping deforestation and fighting climate change in all parts of the globe becomes imperative to protect our planet as a common good. It is worth noting that, in 2022, the total area affected by forest fires was seven times greater in France and four times greater in Europe as a whole, compared to the average of previous years. This represents a clear manifestation of the seriousness of the problem⁵. The murders of the English journalist Dom Phillips and the Brazilian indigenist Bruno Araújo Pereira in the Amazon in June of this year add to the sad situation to which the Brazilian government is assimilated worldwide, not only as absent in the fight against environmental destruction but also as an inciter of violence and impunity.

Transdisciplinary work is increasingly necessary, in which environmentalists, civil society representatives, jurists and scientists act together. This may maintain legal instruments and administrative practices in coherence with the technical-scientific guidelines of Environmental Sciences to safeguard the principles and objectives of sustainability. The strengthening of actions for planetary sustainability requires, from each country, the fulfilment of closed global agreements. Besides, the maintenance of investments in science, technology and public management is necessary for monitoring and foreseeing the scenarios of environmental degradation and seeking creative and fast solutions to protecting the environment. Capable and committed scientists' actions are crucial. Everyone can join this global network that produces knowledge and great researchers. James Lovelock⁶, the renowned scientist behind one of the most fruitful ecological concepts of recent times, left us in July at the age of 103, and he will undoubtedly be missed in this joint effort.

Despite difficulties and setbacks, we are taking essential steps globally towards greater environmental awareness. The international community's engagement in monitoring the Brazilian government's environmental agenda shows global concern and interest strengthening. This movement cannot be condemned by arguing a conflict with national sovereignty. This international awareness also has positive results on another front. A new historic milestone to be highlighted is the decree, in July of this year, by the United Nations General Assembly that affirms a clean, healthy, and sustainable environment is a human right! Indeed, we must transform this act into a new momentum for strengthening efforts for sustainability.

Finally, we must reaffirm that scientific journals such as SiD, with open access, contribute to the expansion of the exchange of knowledge. They play a fundamental role in this process in which the degree of access to knowledge, even among scientists, is a global exclusion or inclusion factor. Science also needs to be democratized and sustainable, giving the entire scientific community access to the global production of knowledge that can contribute to making this world a better place.

The present edition contains eight articles, the first by Fonseca *et al.* focuses on the trajectory of construction and dismantling of forest policies in Brazil, specifically in the Amazon region. Subsequently, Silva and Araújo, in the same biome, investigate the consideration of the Sustainable Development Goals (SDGs) in the Pedagogical Projects of Biology Degree Courses (PPCs) in the Amazon from the State of Para, characterizing the approach of the PPCs on education for sustainability. In the Northeast region, Jales *et al.* discuss the motivations and difficulties in adopting sustainable practices in the supply chains of small and medium-sized companies (SMEs) in the cashew sector in the Ceará State. Furthermore, in Pernambuco, Bernal *et al.* analyse the impact of heat waves on the cardiovascular and respiratory health of the population, discussing how these events from October to March are associated with a higher risk of morbidity and mortality.

At a national level, Gomes *et al.* present an investigation of cetacean observation tourism through a survey of occurrence areas, key species, and norms, aiming to subsidize monitoring and inspection actions. González *et al.*, on a South American scale, call attention to Energy Communities (ECs) and their role in promoting more sustainable, democratic and decentralized electrical systems. Directly

from Ukraine, Sydorova *et al.* analyse the historical context of the establishment of the Ukrainian state, providing a situational assessment of the current economic and environmental risks in Ukraine by investigating anti-crisis "success stories" from other countries. Moreover, in the last article, Italiano *et al.* seek to identify critical aspects and limitations of the creation and modelling process using the Zero Waste approach for its application in the clothing industry, presenting the main limiting aspects and viable alternatives for its implementation in the large-scale clothing manufacturing process.

We hope you enjoy the reading!

NOTES

1| BILYK, O.; KARKOVSKA, V.; KHIM, M. The situation in Ukraine, the consequences of the war for Ukrainian society, science development and sustainability. **Sustainability in Debate**, v. 13, n. 1, p. 12, 2022.

2| Available in: <https://www.reuters.com/article/manchetes-politica-lula-wfp-idBRSPE75K0F520110621>. Access in: 8 aug. 2022.

3| Available in: <https://www.cnnbrasil.com.br/internacional/tribunal-de-haia-diz-que-denuncias-sobre-covid-19-estao-fora-de-sua-jurisdicao/>. Access in: 8 aug. 2022.

4| Available in: <https://noticias.uol.com.br/colunas/jamil-chade/2022/05/19/com-1-milhao-de-assinaturas-denuncia-em-haia-amplia-acao-contra-bolsonaro.htm>. Access in: 8 aug. 2022.

5| Available in: https://www.lemonde.fr/les-decodeurs/article/2022/07/19/rechauffement-climatique-les-feux-de-foret-en-europe-au-plus-haut-a-l-ete-2022_6135383_4355770.html. Access in: 8 aug. 2022.

6| James Lovelock was an outstanding scientist and environmentalist notable for his proposal of the Gaia Hypothesis, according to which Planet Earth functions as a self-regulating system. See for example: <https://www.nouvelobs.com/idees/20220728.OBS61432/james-lovelock-est-mort-bruno-latour-nous-avait-raconte-sa-rencontre-avec-le-pere-de-l-hypothese-gaia.html> (accessed August 10, 2022).