

CLIMATE CHANGE: SOCIAL AND CULTURAL CHALLENGES

ALTERAÇÕES CLIMÁTICAS: DESAFIOS SOCIAIS E CULTURAIS

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Climate change is one of the foremost global challenges. It is global because shifts in climate patterns impact people differently, but ultimately, everyone will be affected. Recent reports from the Intergovernmental Panel on Climate Change (IPCC), including the sixth assessment (Intergovernmental Panel on Climate Change, 2023), underscore the interplay between geographical location and economic, political, and socio-cultural factors. That means that factors such as social class, race, ethnicity, gender and age, which are associated with different levels of social vulnerability, influence the likelihood of suffering from the impacts of the phenomenon and complicate the ability to cope with them, highlighting the social challenges related to climate action and climate justice.

This intersection between the climate emergency and other contemporary social issues makes it ever more important to bring social and cultural challenges into public debate. Historian Dipesh Chakrabarty, a leading figure in post-colonial studies, has highlighted the distinctions and dichotomies between 'natural', 'human', planetary, and global history. He argues that for many years, the environmental issue has been largely absent from historical discourse, particularly regarding human impact on Earth's history. In Chakrabarty's (2021) view, these concepts are interconnected; the human condition has evolved to become increasingly planetary. According to the author, 'planetary' refers to the connection between the Earth's system, species, and human society on the planet, while 'global' pertains to interactions, consumption, capitalism, and extractivism.

Recently, Afghanistan, Argentina, Brazil, Burundi, China, the United States of America, Indonesia, Kenya, Tanzania and Uruguay experienced heavy rains in just the first half of the year. According to the US agency National Oceanic and Atmospheric Administration (NOAA), January had already recorded a high global average rainfall, along with the highest average temperature in much of the world (National Oceanic and Atmospheric Administration /National Centers for Environmental Information, 2024). Predictions indicate that 2024 will be the hottest year on record since data collection began 174 years ago. In Europe, the ten hottest years on record have all occurred since 2007, with the three hottest years since 2020 (Copernicus Climate Change Service & World Meteorological Organization, 2023).

In Brazil, the most significant climate catastrophe ever recorded took place in the South, underscoring the severity of the correlation between climate and social challenges.

In 2024, the state of Rio Grande do Sul (RS), the southernmost in the country, experienced intense rainfall and flooding, impacting 2,100,000 people and around 90% of the state — an area larger than the United Kingdom. Some regions saw rainfall equivalent to the average for three months in just ten days, and 390 towns declared a state of public calamity. According to a report by the Defesa Civil – RS (Civil Defence – RS; 2024), 450 out of 497 towns were affected, disrupting electricity distribution and water supply. The death toll exceeds one hundred, with a similar number of people missing and 500,000 people displaced. More than 11,000 animals are believed to have been affected. Roads have also been damaged, making travel difficult. Many of these municipalities had already been hit by heavy rains in September 2023. Many towns are expected to require rebuilding in alternative regions (Guimarães, 2024).

The media are beginning to categorise the victims of this phenomenon as "climate displaced persons", and government officials have adopted the expressions "extreme weather events" and "heavy and persistent rainfall" within "force of nature" narratives to sidestep political accountability for preventative measures. Reports indicate that disaster risk management has been neglected in the state since 2017. Environmental agencies have issued numerous warnings about the impacts of the climate crisis and the urgent need for disaster prevention and response (Marcuzzo, 2024). In another part of Brazil, the Northeast region, the State of Maranhão faced flooding due to continuous rains in April, leading to over 30 cities declaring a state of emergency (Nascimento, 2024).

Meanwhile, in Spain, the Catalan Water Agency (ACA) has decreed water distribution restrictions because reserves have fallen to less than a quarter of their capacity in 2023 and early 2024 in more than 200 locations, including Barcelona. In recent years, 55% of Spain's territory has been at very extreme risk from fires, and forecasts of increasingly frequent emergency circumstances throughout the Mediterranean include: "more intense and prolonged heatwaves, longer droughts and very low relative humidities" (World Wide Fund for Nature, 2023). Moreover, the report on the State of Spain's climate (Agencia Estatal de Meteorología, 2023) confirms a record number of heatwave days. Historic sites such as the Doñana marshes in Andalusia have reached maximum levels of drought, aggravated by the over-exploitation of aquifers to irrigate large estates.

Various international agreements, such as the United Nations Framework Convention on Climate Change, known through the annual Conferences of the Parties, the United Nations Convention on Biological Diversity, the Paris Agreement, and the United Nations Sustainable Development Goals, have called for political responses and effective local action to prevent the rise in planetary temperatures. Baldwin-Cantello et al. (2023) discuss the triple challenge of limiting the temperature rise to below 2°C, promoting well-being for all, halting and reversing biodiversity loss, and preventing even more severe consequences of climate change. Having a clean, healthy, and sustainable environment is also considered a human right, recognised by the United Nations Human Rights Council (United Nations, 2022).

The proposal to discuss the social and cultural challenges of climate change within the framework of cultural studies aims to incorporate diverse perspectives on this reality,

which are often focused primarily on the physical and technical aspects of the phenomenon. The large number of contributions for this special edition of the journal reflects both the relevance of the topic and the importance of the interdisciplinary approach required to address climate change. Several studies have demonstrated that cultural dimensions influence the interpretation of information, knowledge acquisition, perception of problems and risks, as well as forms of action and reaction. The historical and cultural context shapes the consumption of information, its translation into public and political issues, and the perception of agency (Carvalho, 2010), as cognitive and affective aspects influence behaviour (Lázaro et al., 2011).

Media coverage has been the focus of several studies because of its crucial role in mediating scientific discourse. Communication plays a significant role in political engagement (Carvalho et al., 2017), which becomes even more critical in the present context of polarisation (Falkenberg et al., 2022), disinformation (Lewandowsky, 2021), and the prevalence of social networks (Balbé & Carvalho, 2017; León et al., 2022). Recent studies have also investigated strategies for communicating climate change (Balbé & Loose, 2020; Loose & Carvalho, 2023), as well as the psychological effects associated with it, such as eco-anxiety (Clayton, 2020). Youth climate activist movements have garnered significant attention from researchers, particularly since 2019, when protests surged with the emergence of the Fridays for Future movement, led by Greta Thunberg, among others (Amondarain et al., 2022; Santos et al., 2024).

Youth engagement has also been analysed from a moral standpoint. The research project *Youth Engagement with Sustainable Development Goals: The Choice of Moral Arguments in News for Use in Debate* focused on examining the connection between moral reasoning and the consumption of news related to climate change. This study involved young people from Brazil and Portugal who participated in a psychometric questionnaire (Costa et al., 2022; Costa & Capoano, 2023) and the classification of environmental news comments on ex-Twitter (X; Capoano, Costa & Balbé, 2024). News analyses were conducted to examine how moral attributes are used in environmental media coverage and their influence on news consumption (Capoano & Balbé, 2023). The findings indicate a strong adherence to moral principles such as harm/care and justice/betrayal in discussions about climate change and engagement (Capoano, Balbé & Costa, 2024), underscoring the socio-cultural impact of the issue. The experience of the project fuelled the idea of broadening the debate.

In this context, this thematic volume on *Climate Change: Social and Cultural Challenges* addresses aspects related to communication, journalism, engagement, activism, digital platforms, art and artistic and eco-activist approaches, cinema, decoloniality, public perception of climate change and socio-environmental vulnerabilities related to health and housing.

One collection of articles focuses directly on activists and different forms of activism. The article "The Hybridisation of Journalism in Fostering Engagement with the Climate Cause: A Reception Study with Brazilian Activists" presents the findings of focus groups involving 60 activists from Brazil's five regions. The authors, Caroline Jacobi,

Débora Steigleder, Eliege Fante and Eloisa Loose, focus their analysis on the challenges of communicating climate change in the current scenario of climate emergency and the dissemination of information through online platforms such as social networks, emphasising the need for journalism to adapt to engagement.

The article "Climate Emergency and Youth Activism: A Case Study in Lisbon", authored by Mariana Castro, analyses youth activism and the actions undertaken by four organised activist movements in Portugal. The author explores the concept of the Anthropocene and examines how current activist movements are responding to the climate emergency. This response is reshaping public and political participation, where young people seek to have a voice and agency in discussions about their futures.

In the article "Young Activists and Climate Justice: An Analysis of the Articulations of Txai Suruí and Amanda Costa", authors Criselli Montipó and Myrian Del Vecchio-Lima analyse the profiles and posts of the two young Brazilian activists on the social network Instagram. Txai Suruí and Amanda Costa are members of the United Nations Global Compact Youth Committee and the Engajamundo network, a youth leadership network for young Brazilians. Txai Suruí belongs to the Paiter Suruí indigenous community in Rondônia, while Amanda Costa is from the outskirts of São Paulo. Both activists use their Instagram profiles to promote and advocate for socio-environmental rights through educational and explanatory content. They share video resources to address the environment, human rights, citizenship, social participation and climate justice.

Within the scope of artistic approaches, two articles examine the production of meaning, processes of education, perception, action and awareness of the world through cultural production, activist art, ecological art, and audiovisual art. The article "Activist Art and Ecological Art: Exploring the Interplay of Culture, Environment, and Society, Artistic Approaches, and Cultural Production Contexts" discusses the political identity of art and the relationship between cultural practices and the environment. The author, Tatiana Vargas, reflects on the role of ecological art and cultural practices in the production of knowledge, education, and critical thinking and provides examples of activist practices and artists in Portugal.

In the article "The Contributions of Two Latin American Documentaries to an Expanded Perception of Climate Change from a Decolonial Perspective", author Denise Tavares examines female protagonism and the struggles of indigenous and marginalised populations. She analyses the documentaries *Hija de la Laguna* (Daughter of the Lake; 2015), directed by Peruvian Ernesto Cabellos, and *A Mãe de Todas as Lutas* (The Mother of all Fights; 2021), directed by Brazilian Susanna Lira. This paper, based on film analysis, discusses the scenic and rhetorical construction of the protagonists, as well as social justice, colonialism, and decolonial theory.

Three other articles explore the theme of narratives and vulnerabilities, either through public perception or theoretical proposals. The article "Composing Worlds: Exploring the Metamorphosis of the World in the Age of Climate Change and Its Implications for Health" discusses the global challenges of climate change from the transdisciplinary project Composing Worlds: Humanities, Well-Being and Health, which includes specialists

from the humanities, social sciences, and health fields. Authors Diogo Vidal, Marina Prieto Afonso Lencastre, Hélder Silva Lopes, Susana Magalhães, and Rui Estrada build upon the idea of the metamorphosis of life and the social and environmental application of Beck's concept (2016) to reflect on integrating climate change risks into human and non-human health, sustainability, and well-being. They also explore strategies for addressing the climate emergency through adaptation and mitigation, taking into account different socio-cultural contexts. The authors propose thematic clusters for tackling the challenges and risks of climate change on health and well-being, reflecting on the need for new ways of being, living and thinking about the world.

The article "Climate Change Narratives in TikTok Brazil: From Diagnosis to Despair" centres on the public perception of climate change on this platform, which has gained significant popularity in Brazil in recent years. The authors, Simone Evangelista and Marcelo Garcia, analyse posts related to climate change in Portuguese. In the posted videos, they realised that, despite the consensus on the problem and its urgency, some aspects related to the complexity of the issue ultimately receive less attention, possibly due to the characteristics of the social network where alarmist narratives prevail and few sources of scientific information are identified.

Finally, in the article "Probing Climate Change Perceptions in Vulnerable Enclaves: Resilient Realities in the Buffalo City Municipality, South Africa", author Natal Buthelezi analyses the challenges of coping with climate change in informal settlements. The research focuses on the perceptions of climate change risks among the population of the Duncan Village settlements in the Buffalo City Municipality, South Africa. Applying the climate change hazard and risk perception conceptual model, the author analyses the education and economic status, knowledge about the phenomenon, sources of information and personal experiences with risk based on information collected through questionnaires, interviews and focus groups. Cross-referencing this information with the housing building typologies and the lack of housing maintenance demonstrates that economic constraints, assigning responsibility to the State and the need to raise awareness about climate change jeopardise mitigation and adaptation actions. Historical local political dynamics and gender disparities, with women experiencing deeper layers of vulnerability than men, also shape risk perceptions. The author recommends education, communication, and outreach strategies that involve various agents from the local community and government.

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REFERENCES

Agencia Estatal de Meteorología. (2023). *Informe sobre el estado del clima de España 2022*. https://www.aemet.es/es/conocerlas/recursos_en_linea/publicaciones_y_estudios/publicaciones/detalles/informe_estado_clima

Amondarain, A., Barranquero, A., & Arrilucea, A. (2022). La construcción mediática de los movimientos juveniles frente al cambio climático. Fridays for Future y Extinction Rebellion en la prensa de referencia en España. *Estudios Sobre el Mensaje Periodístico*, 28(3), 497–509. <https://doi.org/10.5209/esmp.80710>

- Balbé, A., & Carvalho, A. (2017). As mudanças climáticas no Twitter: A ascendência da mídia e da política. *Desenvolvimento e Meio Ambiente*, 40, 141–161. <https://doi.org/10.5380/dma.v40i01.49047>
- Balbé, A., & Loose, E. (2020). Jornalismo, medo e alterações climáticas: Articulações possíveis para pensar o enfrentamento dos riscos climáticos. *Observatorio (OBS) Journal*, 14(2), 38–55. <https://doi.org/10.15847/obsOBS14220201465>
- Baldwin-Cantello, W., Tickner, D., Wright, M., Clark, M., Cornelius, S., Ellis, K., Francis, A., Ghazoul, J., Gordon, J. E., Matthews, N., Milner-Gulland, E. J., Smith, P., Walmsley, S., & Young, L. (2023). The triple challenge: Synergies, trade-offs and integrated responses for climate, biodiversity, and human wellbeing goals. *Climate Policy*, 23(6), 782–799. <https://doi.org/10.1080/14693062.2023.2175637>
- Beck, U. (2016). *The metamorphosis of the world how climate change is transforming our concept of the world*. Polity Press.
- Capoano, E., & Balbé, A. D. (2023). La metodología MIME y la teoría de los atributos morales (MTF) para el estudio del cambio climático en tres enfoques. *Comunicación & Métodos*, 5(1), 77–89. <https://doi.org/10.35951/v5i1.177>
- Capoano, E., Balbé, A. D., & Costa, P. R. (2024). Is there a "green moral"? How young people's moral attributes define engagement with narratives about climate change. *Social Sciences*, 13(3), 145. <https://doi.org/10.3390/socsci13030145>
- Capoano, E., Costa, P. R., & Balbé, A. (2024). Mediatized engagement with the environmental debate on Twitter. *The Journal of International Communication*. Advanced online publication. <https://doi.org/10.1080/13216597.2024.2332231>
- Carvalho, A. (2010). Media(ted) discourses and climate change: A focus on political subjectivity and (dis) engagement. *Wiley Interdisciplinary Reviews: Climate Change*, 1(2), 172–179. <https://doi.org/10.1002/wcc.13>
- Carvalho, A., van Wessel, M., & Maesele, P. (2017). Communication practices and political engagement with climate change: A research agenda. *Environmental Communication*, 11(1), 122–135. <https://doi.org/10.1080/17524032.2016.1241815>
- Chakrabarty, D. (2021). *The climate history in a planetary age*. The University of Chicago Press.
- Clayton, S. (2020). Climate anxiety: Psychological responses to climate change. *Journal of Anxiety Disorders*, 74, 102263. <https://doi.org/10.1016/j.janxdis.2020.102263>
- Copernicus Climate Change Service, & World Meteorological Organization. (2023). *European State of the Climate 2023*. <https://climate.copernicus.eu/esotc/2023>
- Costa, P. R., & Capoano, E. (2023). Adaptação do questionário dos fundamentos morais ao tema do ambiente. *Sociologia On Line*, (33), 34–50. <https://doi.org/10.30553/sociologiaonline.2023.33.2>
- Costa, P. R., Capoano, E., Balbé, A. D., & Gravato, D. (2022). Metodologia automatizada e psicométrica para análise na web: O caso do projeto de pesquisa “Engage for SDG”. *Revista Ciências Humanas*, 15(3). <https://doi.org/10.32813/2179-1120.2022.v15.n3.a949>
- Defesa Civil – RS. (2024, 14 de maio). *Balanço das enchentes no Rio Grande do Sul*. <https://www.defesacivil.rs.gov.br/defesa-civil-atualiza-balanco-das-enchentes-no-rs-14-5-gh>

- Falkenberg, M., Galeazzi, A., Torricelli, M., Di Marco, N., Larosa, F., Sas, M., Mekacher, A., Pearce, W., Zollo, F., Quattrocchi, W., & Baronchelli, A. (2022). Growing polarisation around climate change on social media. *Nature Climate Change*, 12, 1114–1121. <https://doi.org/10.1038/s41558-022-01527-x>
- Guimarães, L. (2024, 4 de maio). “Cidades inteiras do RS terão que mudar de lugar”, diz pesquisador que alertou para despreparo contra chuvas. BBC News Brasil. <https://www.bbc.com/portuguese/articles/cd18p5zppono>
- Intergovernmental Panel on Climate Change. (2023). *Climate change 2022: Impacts, adaptation, and vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. <https://doi.org/10.1017/9781009325844>
- Lázaro, A., Cabecinhas, R., & Carvalho, A. (2011). Uso dos media e envolvimento com as alterações climáticas. In Carvalho, A. (Ed.), *As alterações climáticas, os media e os cidadãos* (pp.195–222). Grácio.
- León, B., Negredo, S., & Erviti, M. C. (2022). Social engagement with climate change: Principles for effective visual representation on social media. *Climate Policy*, 22(8), 976–992. <https://doi.org/10.1080/14693062.2022.2077292>
- Lewandowsky, S. (2021). Climate change disinformation and how to combat it. *Annual Review of Public Health*, 42, 1–21. <https://doi.org/10.1146/annurev-publhealth-090419-102409>
- Loose, E. B., & Carvalho, A. (2023). Public communication and perceptions of climate change in Brazil. In Z. Baker, T. Law, M. Vardy & S. Zehr (Eds.), *Climate, science and society* (pp. 58–65). Routledge.
- Marcuzzo, S. (2024, 11 de maio). *Governo Eduardo Leite não colocou em prática estudos contra desastres pagos pelo estado*. Agência Pública. <https://apublica.org/2024/05/governo-eduardo-leite-nao-colocou-em-pratica-estudos-de-prevencao-de-desastres-pagos-pelo-rio-grande-do-sul/>
- Nascimento, L. (2024, 10 de maio). *Maranhão tem 30 cidades em situação de emergência por causa das chuvas*. Agência Brasil. <https://agenciabrasil.ebc.com.br/geral/noticia/2024-05/maranhao-tem-30-cidades-em-situacao-de-emergencia-por-causa-das-chuvas>
- National Oceanic and Atmospheric Administration/National Centers for Environmental Information. (2024, 16 de fevereiro). *Global climate summary for January 2024*. Climate.gov. <https://www.climate.gov/news-features/understanding-climate/global-climate-summary-january-2024>
- Santos, T. R., Üzelgün, M. A., & Carvalho, A. (2024). Young climate activists in television news: An analysis of multimodal constructions of voice, political recognition, and co-optation. *The Communication Review*, 27(1), 32–54. <https://doi.org/10.1080/10714421.2023.2251310>
- United Nations. (2022). *The human right to a clean, healthy and sustainable environment: Resolution adopted by General Assembly*. <https://digitallibrary.un.org/record/3983329?ln=en&v=pdf>
- World Wide Fund for Nature. (2023). *Informe sobre incendios forestales 2023. Incendios extremos e inapagables. Propuestas para favorecer paisajes vivos, diversos, resistentes y resilientes*. WWF Adena.

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