



Childhood, Adolescence, Youth and Climate Change:
Analysis of international scientific research (2020–2024)
Climate Change and Climate Justice
April 2026



This bulletin is part of a series aimed at understanding in depth the current debate connecting children, adolescents, and young people to climate change and its impacts. The series is based on articles organized in the bibliographic database "Adolescents, Youth and Climate Change – National and International Academic Production (2020–2024)"; and on reports produced by national, international, and multilateral organizations between 2015 and 2025, also available in the same database.

The research was developed within the scope of the project "Citizen Participation: Child and Youth Population in Focus," coordinated by Professor Irene Rizzini (PUC-Rio/DSS/CIESPI), with support from FAPERJ (CNE - Process E-26/201.113/2022). The project analyses different aspects of citizen participation and the leadership role of children, adolescents, and young people in Brazil.

In addition, it is part of the project "Youth and Climate Change in Brazil," also coordinated by Professor Irene Rizzini (PUC-Rio/DSS/CIESPI), with support from the José Luiz Egydio Setúbal Foundation and the Nova Institute for Health, in partnership with the Associação Cidade Escola Aprendiz. The research included a survey of 200 students, aged 12 to 18, from all regions of the country, to understand how they think and act in relation to climate change.

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Author: Carolina Terra | Translator: Mariana Menezes | Editors: Irene Rizzini e Renata Brasil

1.0 - Introduction

International debates on climate change have expanded significantly in recent years, following the deepening scientific evidence presented by the Intergovernmental Panel on Climate Change (2023) and the growing mobilization of children, adolescents, and young people on a global scale.

The term *climate change* refers to alterations in the state of the climate identifiable by statistical analyses, resulting from changes in the average or variability of its elements, and which persist over long periods, generally decades or more. This definition encompasses both natural processes internal to the climate system and external influences. The most intense transformations observed in recent decades are associated with human actions that alter the composition of the atmosphere and land use (IPCC, 2023).

We use the definition of climate justice which is understood as connecting development, human rights, and the protection of the most vulne-

rable populations, seeking to ensure an equitable distribution of the risks, impacts and responsibilities associated with the climate crisis (IPCC, 2023).

In the light of these conceptual frameworks, we examine 207 articles on the subject, published in English between 2020 and 2024. This bulletin presents a synthesis of the trends, debates, and perspectives identified from the database "Children, Adolescents, Youth and Climate Change – National and International Academic Production (2020–2024)". The international publications offer a heterogeneous panorama, covering scientific, educational, political, and territorial dimensions of the climate crisis, and highlighting how children, adolescents, and young people have been represented, mobilized, and researched in the international discussions.

2.0 - Methodology

The methodology described in this section refers specifically to the key topics on climate change and climate justice developed for this bulletin¹.

The bibliographic search was conducted on the CAPES² Journal's platform, between 2020 and 2024, including articles published in English. Only open access journals were considered. The searches combined the terms "*climate change*" and "*climate justice*" with "*children*", "*child*", "*childhood*" and "*youth*".

Due to the extensive results obtained in the English search, the filter 'keyword in title' available on the CAPES Journals platform was applied to refine the results and ensure greater thematic precision in the selection of articles included in the database. Texts that did not fit the format of a scientific article and those that did not address the theme of environmental education or the defined age range were excluded. The filter for peer-reviewed articles was also adopted to ensure greater methodological and scientific rigor in the texts.

The age terminology used in this study follows the definitions established in national legal frameworks. The Statute of Children and Adolescents (ECA) considers a child to be a person up to 12 years of age and an adolescent to be a person between 12 and 18 years of age (Brazil, 1990). The National Youth Policy defines young people as individuals aged between 15 and 29 years (Brazil, 2005).

It is important to emphasize that this survey has limitations stemming from our approach. Although the CAPES Journals platform brings together a wide variety of publications, this study considered only scientific articles published between 2020 and 2024. The chosen timeframe was intentional to concentrate the analysis on more recent work, which reflect the intensification of debates on the climate crisis, socio-environmental justice, and environmental education in the post-pandemic context. This interval allows us to capture the contemporary approaches that emerge in response to new global challenges, public policies, and social mobilizations around the climate agenda. This decision, while limiting the observation of long-term historical trends, allows for an updated reading of the main conceptual and methodological orientations present in recent literature.

Furthermore, the focus on open access and peer-reviewed articles aims to ensure greater comparability and methodological rigor, although it results in the exclusion of other relevant forms of production, such as theses, dissertations, books, book chapters, and conference proceedings. However, the research analysed offers a representative overview of current discussions on climate change and climate justice, serving as a basis for future expansions and cross-referencing with other sources and publication formats.

The survey conducted for the development of the bibliographic database "Adolescents, Youth and Climate Change – National and International Academic Production (2020-2024)" is broader and includes climate change, climate justice, and environmental education, focusing on children, adolescents, and young people. A complete description of the methodology used, as well as all the articles, is available on the CIESPI/PUC-Rio website (www.ciespi.org.br).

Among the international publisher consulted database, we highlight the following Elsevier, Wiley, Taylor & Francis, Springer, SAGE, Nature Portfolio, Cambridge University Press e Routledge.

3.0 - Main highlights

Based on the analysis of 207 articles published in English between 2020 and 2024, it was possible to identify a set of conceptual and analytical trends that permeate recent international research on children, adolescents, youth, and climate change. These studies are organized around discussions that cover environmental education, emotional and psychosocial experiences, youth participation, climate justice, territorial inequalities, and research methodologies. Below, we present the themes that synthesize these topics, highlighting convergences, tensions, and theoretical perspectives.

3.1 - Agency and participation of children, adolescents, and young people in climate issues

Among studies aimed to explore the political and environmental engagement of new generations, there is a significant body of work that recognizes children, adolescents, and young people as subjects who interpret, question, and intervene in debates about the climate crisis. These studies discuss how youth political action is structured in diverse spaces, from schools to global movements, and emphasize that new generations play an active role in reshaping contemporary climate agendas (Boulianne, Lalanette, and Ilkiw, 2020; Thew, Middlemiss, and Paavola, 2020).

These studies understand agency not as an individual attribute, but as a practice situated within social, school, community, and digital networks. They highlight that participation processes emerge from everyday interactions, territorial experiences, and intergenerational dynamics, and that the legitimacy of the voice of new generations depends on material and symbolic conditions that shape possibilities for action. This approach emphasizes that participation is constituted as a social construction affected by inequalities, recognition, and political disputes (Mackay, Parlle, and Karsgaard, 2020; Bowman and Pickard, 2021; Wielk and Standlee, 2021).

This approach is reinforced by studies that investigate both the involvement of students in international mobilizations and the inclusion of children and adolescents in participatory research methodologies that favour the expression of their perceptions, experiences, and positions on the environment and climate. Such research shows that children and young people engage through protests, digital mobilizations, collaborative processes, and community initiatives, expanding their repertoires of action and consolidating their own ways of understanding and intervening in the climate crisis (Ritchie, 2020; Trott and Weinberg, 2020; Yona et al., 2020).

3.2 - Climate justice, rights, and accountability

Studies on climate justice highlight that the distribution of environmental risks and impacts falls disproportionately on historically vulnerable populations, including children, adolescents, and young people. This discussion emphasizes that economic, social, and territorial inequality structure how youth groups experience the climate crisis, reinforcing the urgency of approaches that articulate environmental justice and the protection of rights (Fambasayi and Addaney, 2021; Thew, Middlemiss, and Paavola, 2020).

Another important approach emphasizes intergenerational justice as an ethical and political foundation for climate protection. In this perspective, the crisis is understood as a dispute over possible futures and as a field that involves moral and legal obligations to present and future generations. The studies argue that children and young people should be recognized as rights holders and included in the formulation of mitigation and adaptation policies (Lewis, 2021; Kotzé and Knappe, 2022).

Analyses of climate litigation reinforce this perspective by examining how legal proceedings mobilize arguments for intergenerational protection and state responsibility. These studies show that lawsuits have become strategic instruments for demanding government action and broadening the public debate on climate justice, bringing children and young people to the centre of legal and socio-political disputes (Daly, 2024; Aiello and Di Martino, 2024; Trott, 2024).

3.3 - Mental health

Discussions on mental health and climate underscore that children, adolescents, and young people experience the climate crisis as an emotional experience typified by fear, anguish, sadness, and uncertainty about the future. These studies address phenomena such as eco-anxiety and climate distress as responses to perceived risks, institutional distrust, and a sense of lack of control, indicating that emotions are a constitutive part of the relationship of

new generations with the climate (Hickman et al., 2021; Vercammen et al., 2023).

Other studies reinforce that these emotional experiences are socially distributed and affected by inequalities, territorial conditions, and community ties. From this perspective, suffering and climate concern are influenced by contexts of vulnerability, exposing how collective identities, racial affiliations, and historical experiences of exclusion shape the emotional experiences of the crisis (Lykins et al., 2023; Brown et al., 2024).

There are also studies that link emotions to socio-political engagement, given that negative feelings can generate mobilization, collective action, and the search for alternative futures, if young people are provided with opportunities and spaces for acceptance and establishment of shared meaning. This literature shows that emotional responses to climate are intertwined with political agency and forms of youth participation (Vergunst et al., 2024; Zurba et al., 2024; Provenzi et al., 2024; Kotera et al., 2024; Squires et al., 2024).

3.4 - Territoriality, Indigenous Peoples, and inequalities

Studies that address territoriality highlight that the climate crisis is experienced heterogeneously, being impacted by historical, ethnic, and socio-environmental inequalities. Studies analysing indigenous peoples and communities show that children and young people from these groups experience the climate in contexts characterized by coloniality, environmental racism, and territorial disputes, demonstrating that the climate crisis operates as a continuation of processes of expropriation and violence (Ritchie, 2020; Brown et al., 2024).

In rural areas, several studies indicate that climate change affects practices of production, lifestyles, and community relations, involving young people in processes of ecological adaptation and economic reorganization. In these contexts, climate and youth are understood as integrated with traditional knowledge, care networks, and collective envi-

ronmental management practices (Vilá et al., 2020; Udas et al., 2021).

There were also analyses that examine inequalities in urban contexts, highlighting that environmental vulnerabilities overlap with precariousness, lack of infrastructure, and socioeconomic inequalities. These studies show that the climate experiences of children and young people are inseparable from the material and spatial conditions that shape their daily lives (Hernández and Morote, 2022).

3.5 - Participatory methodologies and knowledge production with children and young people

Studies that adopt participatory methodologies see children and young people as active subjects in the formulation of knowledge about climate and the environment. These approaches value listening, emphasizing that participation occurs through collaborative practices that challenge the traditional model of research centred on adults and scientific authority (Trott and Weinberg, 2020; Yona et al., 2020).

In these studies, participation is a methodological technique, but equally an ethical stance linked to valuing experience, recognizing situated knowledge, and expanding the agency of different generations. This research reinforces that participatory methodologies contribute to producing shared meanings about the climate crisis and strengthen links between territory, identity, and collective action (Matsekoleng and Awshar, 2020; Trott and Weinberg, 2020).

Furthermore, the pedagogical dimension is linked to the political dimension, with an awareness that processes of listening and collaboration broaden possibilities for participation and create conditions for young people to develop their own narratives, contest meanings, and propose alternative futures in contexts of climate uncertainty (Yona et al., 2020; Ritchie, 2020).

4.0 - Closing remarks: reflections, gaps, and possible paths forward

The analysis of these themes enables us to identify a set of cross-cutting reflections on how the international literature has understood the presence of children, adolescents, and young people in contemporary debates on climate change.

In the first theme, on agency and participation, we note that the literature recognizes the political potential of children, adolescents, and young people, but also highlights barriers that hinder their chances for action. Agency appears as a situated social construct, strained by intergenerational relations and disputes over legitimacy, which requires further analysis of the mechanisms of recognition, adult-centric practices, and institutional constraints. Studies show that young people have produced innovative repertoires of action, but they also highlight that their participation, beyond mobilization, depends on material, emotional, and symbolic conditions that still require further investigation.

Debates on climate justice, as seen in the second theme reveal that the field has advanced by connecting structural inequalities, human rights, and intergenerational responsibilities. However, research that explicitly centres children and young people as subjects of rights within the framework of climate governance is still scarce. A gap persists between the normative recognition of their rights and their effective inclusion in decision-making processes. Furthermore, the literature emphasizes the importance of climate litigation, but points to the need to understand how judicial decisions translate into concrete transformations in the territories and lives of new generations.

The theme dedicated to mental health and psychosocial dimensions accentuates the relevance of incorporating emotions, suffering, and expectations for the future into climate analyses. However, the predominance of quantitative studies or those focused on individual diagnoses rarely engage with the social, ethnic, racial, and territorial determinants of climate suffering. Research is advancing by recognizing that eco-anxiety is not only a psychological experience, but an expression of concrete conditions

of risk and inequality. There is room to broaden approaches that articulate care, community, belonging, and resistance, valuing collective ways of coping with the crisis.

Reflections on territoriality and inequalities reinforce the idea that the climate crisis cannot be understood in isolation from the contexts, social markers, and histories that shape the lives of children and young people. However, the literature is mostly situated in the Global North and still focuses too little on the realities of the Global South, Latin America, and racialized or indigenous populations from structural perspectives. This gap points to the need to strengthen research that connects climate, environmental justice, histories of coloniality, and local knowledge.

Finally, the section dedicated to participatory methodologies shows promising paths by recognizing children and young people as co-authors in the production of knowledge about climate. However, such approaches are still in the minority and face ethical, institutional, and epistemological challenges. Tensions persist between symbolic and effective participation, and it is still necessary to improve conditions that allow collaborative research not only to record but also to strengthen forms of action, care, and transformation in the territories.

Taken together, these themes reveal an expanding field, but still marked by geographical, epistemological, and generational asymmetries. Strengthening the dialogue between critical perspectives, contextualized educational practices, participatory approaches, climate justice frameworks, and the emotional and territorial experiences of new generations constitutes a possible path to consolidating a research agenda that responds to the climate emergency with justice and inclusion.

5.0 - References

- Aiello, J. & Di Martino, E. (2024). Communicating intergenerational justice and climate change: a study of youth-generated environmental discourses. *Journal of World Languages*, 10(2), 378-400. <https://doi.org/10.1515/jwl-2024-0007>
- Boulianne, S., Lalancette, M. & Ilkiw, D. (2020). School Strike 4 Climate: Social media and the international youth protest on climate change. *Media and Communication*, 8(2), 208-218. <https://doi.org/10.17645/mac.v8i2.2768>
- Bowman, B. & Pickard, S. (2021). Peace, protest and precarity: Making conceptual sense of young people's non-violent dissent in a period of intersecting crises. *Journal of Applied Youth Studies*, 4(5), 493-510. <https://doi.org/10.1007/s43151-021-00067-z>
- Brown, M. et al. (2024). Walking forward together - The next step: Indigenous youth, mental health, and the climate crisis. *Psych*, 6(1), 210-220. <https://doi.org/10.3390/psych6010013>
- Daly, A. (2024). Child and youth friendly justice for the climate crisis: Relying on the UN Convention on the Rights of the Child. *The International Journal of Children's Rights*, 32(3), 632-661. <https://doi.org/10.1163/15718182-32030002>
- Fambasayi, R. & Addaney, M. (2021). Cascading impacts of climate change and the rights of children in Africa: A reflection on the principle of intergenerational equity. *African Human Rights Law Journal*, 21(1), 29-51. <https://doi.org/10.17159/1996-2096/2021/v21n1a3>
- Hernández, M. & Morote, A-F. (2022). What do school children know about climate change? A social sciences approach. *Social Sciences*, 11(4), 179. <https://doi.org/10.3390/socsci11040179>
- Hickman, C. et al. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *The Lancet Planetary Health*, 5(12), e863-e873. [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)
- Kotera, Y. et al. (2024). Climate change anxiety among parents of school-aged children in the UK: experience as a common predictor of cognitive-emotional and functional impairments. *International Journal of Spa and Wellness*, 8(1), 125-130. <https://doi.org/10.1080/24721735.2024.2409466>
- Kotzé, L. & Knappe, H. (2022). Youth movements, intergenerational justice, and climate litigation in the deep time context of the Anthropocene. *Environmental Research Communications*, 5(2), 025001. <https://doi.org/10.1088/2515-7620/aca21>
- Lewis, B. (2021). Children's human rights-based climate litigation at the frontiers of environmental and children's rights. *Nordic Journal of Human Rights*, 39(2), 180-203. <https://doi.org/10.1080/18918131.2021.1996002>
- Lykins, A. D. et al. (2023). Australian youth mental health and climate change concern after the black summer bushfires. *EcoHealth*, 20(1), 3-8. <https://doi.org/10.1007/s10393-023-01630-1>
- Mackay, M., Parlee, B. & Karsgaard, C. (2020). Youth engagement in climate change action: case study on indigenous youth at COP24. *Sustainability*, 12(16), 6299. <https://doi.org/10.3390/su12166299>
- Matsekoleng, T.K. & Awshar, M.T. (2020). Improved attitudes towards littering through progressive action research activities in an environmental education context. *Asia-Pacific Journal of Teacher Education*, 50(1), 51-68. <https://doi.org/10.1080/1359866X.2020.1793906>
- PAINEL INTERGOVERNAMENTAL SOBRE MUDANÇA DO CLIMA (IPCC). (2024). *Mudança do Clima 2023: Relatório Síntese. Contribuição dos Grupos de Trabalho I, II e III ao Sexto Relatório de Avaliação do Painel Intergovernamental sobre Mudança do Clima. Tradução: Rede CLIMA, Ministério da Ciência, Tecnologia e Inovação (MCTI). Brasília: MCTI, 184 p.*
- Provenzi, L. et al. (2024). Climate change challenge faced by Italian children: a nationwide study. *Healthcare*, 12(17), 1797. <https://doi.org/10.3390/healthcare12171797>
- Ritchie, J. (2021). Movement from the margins to global recognition: climate change activism by young people and in particular Indigenous youth. *International Studies in Sociology of Education*, 30(1-2), 53-72. <https://doi.org/10.1080/09620214.2020.1854830>
- Squires, E., Whiting, L. & Petty, J. (2024). Effects of climate change on the health of children and young people. *Nursing Standard*, 39(4), 60-65. <https://doi.org/10.7748/ns.2024.e12308>

Thew, H., middlemiss, L. & Paavola, J. (2020). “Youth is not a political position”: Exploring justice claims-making in the UN climate change negotiations. *Global Environmental Change*, 61, 102036.

Thew, H., middlemiss, L. & Paavola, J. (2021). Does youth participation increase the democratic legitimacy of UNFCCC-orchestrated global climate change governance. *Environmental Politics*, 30(6), 873-894. <https://doi.org/10.1080/09644016.2020.1868838>

Trott, C. D. (2024). “It can’t just be the younger people”: exploring young activists’ perspectives on intergenerational tensions and solidarities for climate justice. *Journal of Community & Applied Social Psychology*, 34(6), e70001. <https://doi.org/10.1002/casp.70001>

Trott, C. D. & Weinberg, A. (2020). Science education for sustainability: Strengthening children’s science engagement through climate change learning and action. *Sustainability*, 12(16), 6400. <https://doi.org/10.3390/su12166400>

Udas, P.B. et al. (2021). What can we learn from rural youth in British Columbia, Canada? Environment and climate change - issues and solutions. *Sustainability*, 13(24), 13562. <https://doi.org/10.3390/su132413562>

Vercammen, A. et al. (2023). Investigating the mental health impacts of climate change in youth: design and implementation of the international changing worlds study. *Challenges*, 14(3), 34. <https://doi.org/10.3390/challe14030034>

Vergunst, F, et al. (2024). Association of youth climate change worry with present and past mental health symptoms: a longitudinal population-based study. *Climatic Change*, 177(10), 153. <https://doi.org/10.1007/s10584-024-03807-1>

Vilá, B., Arzamendia, Y. & Rojo, V. (2020). Environmental education as a means for valuing and conserving camelids and pastoralism in the Argentinean Altiplano of Jujuy. *Mountain Research and Development*, 40(4), D39. <https://doi.org/10.1659/mrd-journal-d-20-00009.1>

Wielk, E. & Standlee, A. (2021). Fighting for their future: an exploratory study of online community building in the youth climate change movement. *Qualitative Sociology Review*, 17(2), 22-37. <https://doi.org/10.18778/1733-8077.17.2.02>

Yona, L. et al. (2020). Applying a leverage points framework to the United Nations climate negotiations: The (dis) empowerment of youth participants. *Elementa: Science of the Anthropocene*, 8, 36. <https://doi.org/10.1525/elementa.433>

Zurba, M. et al. (2024). “I start to doubt whether any of my actions will matter”: youth activists’ experiences and expressions of the emotions associated with climate change. *Climatic Change*, 177(6), 100. <https://doi.org/10.1007/s10584-024-03757-8>

Notes

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