sustainability

MDPI

Article

A Systematic Review of the Literature on Climate Justice: A Comparison Between the Global North and South

Marcos Tavares de Arruda Filho *, Pedro Henrique Campello Torres and Pedro Roberto Jacobi

Graduate Program in Environmental Science (PROCAM), Institute of Energy and Environment, University of São Paulo, Avenue Professor Luciano Gualberto, 289, University City, Butantã 05508-010, São Paulo, Brazil; phcampellotorres@gmail.com (P.H.C.T.); prjacobi@gmail.com (P.R.J.)

* Correspondence: marcostavares@outlook.com

Abstract: This study analyzes the characteristics of publications on climate justice on a global scale and between countries in the North and South, using the guidelines of the PRISMA model. A total of 826 relevant papers were identified in five databases, with 717 from the Global North and 109 from the South. There is a concentration of work in the countries of the Global North. The social and economic disparities between countries in the North and South are reflected in the distribution of publications. The focus of climate justice research in the countries that make up the Global South is mainly on the socio-environmental context and the social vulnerability of the population; in this group, it is the first time that this theme has been expressed in the analysis.

Keywords: climate justice; climate injustice; climate change; climate emergency; bibliometrics; database search; climate policy

check for updates

Citation: Arruda Filho, M.T.d.; Torres, P.H.C.; Jacobi, P.R. A Systematic Review of the Literature on Climate Justice: A Comparison Between the Global North and South. *Sustainability* **2024**, *16*, 9888. https://doi.org/10.3390/su16229888

Academic Editor: Anmin Duan

Received: 19 September 2024
Revised: 24 October 2024
Accepted: 31 October 2024
Published: 13 November 2024

Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

The topic of climate justice is increasingly pressing and urgent on the global stage, affecting countries in both the Global North and South in different and disproportionate ways. Over the last three decades, the topic of climate justice has emerged in various spaces and formats [1]. Climate justice is commonly considered to be the unjust distribution of the costs and burdens of climate change and the ability to react to a climatic extreme [2]. Climate justice is a concept capable of providing the criticality needed to build a resistance that forcefully confronts the negative and unequal effects of climate change, given that solutions based on neoliberal ideology are incapable of responding to the climate emergency, as well as reinforcing inequalities between the Global North and South [3].

Major climate catastrophes do not affect everyone equally, with some countries—or social groups and territories—suffering more intensely from the effects of this urgent crisis. The climatic conditions to which communities have long adapted are changing rapidly. The human impacts of these changes depend, in part, on how many people are affected (i.e., exposure) [4]. Historically, climate injustices are produced and suffered unequally across the global territory, and the poorest countries, mostly belonging to the Global South, have less resilience in the face of extreme weather events [5].

The North–South impasse in climate policy is linked to more significant systemic problems that hinder cooperation between rich and poor nations in general [6]. In the countries of the Northern Hemisphere, where industrialization has historically been more pronounced, individual greenhouse gas emissions are considerably higher. However, these nations generally have superior financial and technological resources to deal with the effects of climate change, both to mitigate them and to adapt to them. Communities that have contributed the least to climate change are unduly burdened and harmed by it over decades and even centuries [7].

The main consequences of climate change are felt by the poor sectors of the population all around the planet, but with more intensity in Global South countries. The countries

that have the greatest climate vulnerability and consequently feel the impacts of extreme weather events the most are those that contribute the least to gas emissions [8]. Affected societies in the Global South are not only victims of disproportionate GHG emissions from industrialized Western countries but also have to bear the brunt of various types of poor compliance with climate ethics from several neighboring countries in their respective regions [9]. In the Global South, the paradox of dealing with the consequences of a crisis to which they have contributed minimally highlights the need for true climate justice [10].

In Latin America, social inequalities are linked to environmental issues, and climate injustices are associated with the scarcity of resources and the lack of urban infrastructure. In this sense, adaptation, poverty, rights, and justice must be intertwined in planning, policies, and social mobilization so that adaptation does not become just an empty or reproductive model for producing inequalities in the territory [11]. The strengthening of the Latin American climate justice agenda contributes to a critical look at climate science, incorporating the relations of coloniality, power, and dependence between the Global North and South, as well as weaving paths for radical transformations that encourage confronting the backbone of the climate crisis: capitalism [3].

The relevance of this study lies in the fact that, currently, there are few systematic reviews of the literature on the intersection between social justice and climate change published, with little comparative material between countries in the Global North and South. This is precisely the point at which this study is anchored and seeks to advance the scientific field, attempting to fill a gap in the comparison between countries on the study of this theme, using different approaches and topics defined as priorities for research. Most of the reviews focus on climate change communication [12], mitigation [13], and adaptation [14] in general [1].

This study contributes to and advances this field of study and aims to identify the general characteristics of publications on climate justice at a global level and, comparatively, between countries in the Global North and Global South. Furthermore, this study had as a secondary objective to analyze the contributions of scientific works to the social issues of climate justice that emerge from the researched works, highlighting the geography of knowledge production perceived between the North, which holds the majority of publications, and the global South, which suffers from increasing marginalization due to the politics of access, resources and, ultimately, knowledge production, and with growing concerns about visibility policies and institutional affiliations, review processes, deadlines, and fees [15].

This study uses a systematic review and bibliometric principles to search for academic material published over 21 years (2000–2021) on the topic of climate justice around the world. The systematic review allows us to map and identify research gaps, as well as possible themes to be worked on in this field. Section 2 describes the methodology used for the research, justifying the choice of databases, the criteria used to classify the researched works, the limitations of the research, and the statistical framework used to analyze them. Section 3 presents the results found. Section 4 offers a broader discussion of the results obtained, focusing on the comparison between the North and the South, and finally, Section 5 contains the conclusions of the text.

2. Materials and Methods

To obtain a comprehensive view of the literature, which would come as close as possible to the total sampled universe of publications on climate justice in the world, a search protocol was drawn up for the systematic review following the Prisma principles (https://www.prisma-statement.org/, accessed on 19 September 2024) [16]. The aim was to identify and compile literature on the subject to create a theoretical basis for analyzing from which perspectives climate justice is being worked on in the countries that make up the Global North and South. This action made it possible to develop the axes of the current literature and visualize a matrix in which this theme is approached around the world (Table S1).

2.1. Eligibility Criteria and Selection Process

A systematic review was carried out to identify, select, and analyze relevant works focusing on climate justice. To this end, the guidelines of the *Preferred Reporting Items for Systematic Review and Meta-Analysis* [17] were used to draw up the search protocols and workflows (Figure 1). A systematic review deals with a focused survey of the literature that seeks to answer specific research questions using predefined eligibility criteria for selecting documents and explicitly described and reproducible methods [18]. The main idea of this review is to identify and map articles and book chapters published on climate justice at the global level. It is not intended, therefore, to analyze the content of the works surveyed but rather to work on quantitative bibliometrics and survey the strands of this theme by mapping publications based on the authors, affiliations, countries, and journals in which they were published [15].

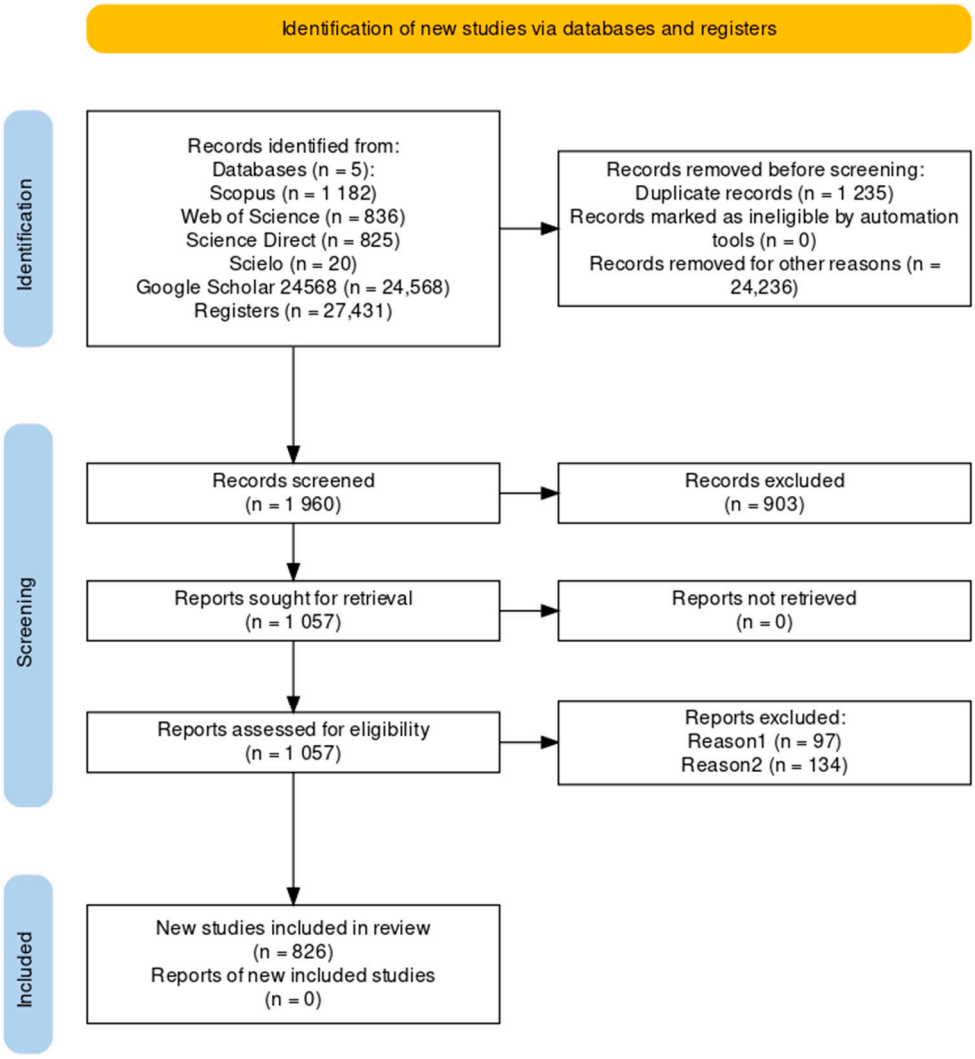

Figure 1. PRISMA flow diagram of the protocol for identification, screening, eligibility, and inclusion of the works analyzed. Source: [19], adapted by the authors.

The review for specialized literature was carried out through a survey in the Scielo (https://scielo.org/), Web of Science (https://www.webofscience.com/), Scopus (https://www.scopus.com/), Science Direct (https://www.sciencedirect.com/) and Google Scholar (https://scholar.google.com.br/) databases. These databases were chosen due to their range of publications so as to study different areas of knowledge. Google Scholar was added to include a greater number of works from the Global South since the other databases

had fewer publications from these countries. The other databases were used to expand the sampling effort in the search for publications and bring the statistical analysis as close as possible to the total universe studied.

The descriptors "climate justice" and "climate injustice" were used, along with their plural forms, looking for appearances in the title and/or abstract and/or keywords. The descriptors were searched in English, Spanish, and Portuguese in each database. Since the exclusive use of the English language is a limiting factor when searching for work published outside the Global North [20], the latter two languages were used so that the number of publications on climate justice by researchers from Spanish- and Portuguese-speaking countries could be covered. Data were collected from March to November 2022 by manually searching the websites of the databases selected above. The information was exported in RIS and/or Excel format when available.

The search comprised works published between 1 January 2000, the starting date for cataloging the databases used, and 31 December 2021, and no filter was applied regarding the areas of knowledge in each database. Only articles from scientific journals and book chapters were considered for this research. The study equally classified and treated both forms as "works". All other results (articles published at conferences, conference presentations, books, and working papers) were excluded from the analysis by the main examiner through direct observation of the texts of the papers (Table 1).

Table 1. Inclusion and exclusion criteria for the selection of papers.

Inclusion Criteria	Exclusion Criteria
1. Presence of any descriptor in the title, abstract and/or keywords of the work	1. Presence of the descriptor exclusively in another part of the text
2. Publication date before 31 December 2021	2. Publication date after 31 December 2021
3. Text in English, Portuguese and Spanish	3. Text in other languages
4. Format of the publication as an article in a scientific journal or book chapter	4. Publication format as a book, government documents, working papers, or conference publications

Source: elaborated by the authors.

A database was created to identify and compile the works surveyed. The files were organized in cloud folders and fed periodically as the data collection progressed. Spreadsheets were used to plot the data for each work and to check for duplicates. A total of 27,431 works were retrieved by searching the four databases, with Google Scholar being responsible for inserting more than 24,000 of this total. A total of 1235 duplicates and 24,236 samples were removed because they came from websites, news pages, and blogs. A manual review by the main examiner of the existence of the descriptor in the title, abstract, and keywords of the texts eliminated 903 papers from the sample. A total of 97 papers were excluded because they did not fit into the period analyzed and 134 because they were not written in the three languages searched.

The works found were exported to the Mendeley Reference Manager 2.71.0® software, where duplicates were excluded, and missing information was incorporated. The total amount was organized in spreadsheets containing information on the titles, authorship, year of publication, number of pages, and publication vehicle. Subsequently, the sample was subdivided into Global North and Global South, using Brandt's Line classification (1980), which classifies countries based on their GDP per capita. The countries of the work institutions of the first authors of each material analyzed were taken into account for classification purposes.

2.2. Data Collection Process

The papers collected had their titles, abstracts, and keywords extracted and organized into three textual corpora: one for the entire sample, one for the articles classified as

belonging to the Global North, and another for the Global South. The composition of the textual corpus was done by creating text units containing each work's title, abstract, and keywords when available. Each text unit is separated into text segments (ST) in textual statistical analysis. From them, descriptive syntheses of the set of texts, the corpus, and other types of analysis are produced [21]. The units were translated into English to standardize the data and categorized into command lines (**** *Article_01). The free software IRaMuTeQ 0.7 alpha 2 (R Interface pour les Analyses Multidimensionnelles de Textes et de Questionnaires) was used for lexicometry, similarity, and descending hierarchical classification (CHD) analyses.

2.3. Limitations

This work has some limitations that were observed during the data collection and analysis phase. Most of the databases used have articles published in English, which limits the scope of the research to articles published in the Global South, where most countries do not have English as their native language. Although English is the native language of only 7.3% of the world's population, and less than 20% can speak it, almost 75% of all scientific publications are in English [22].

Databases that cover works published in Spanish and Portuguese, for example, do not have advanced data filtering and classification systems, which requires this stage to be done manually, which involves a greater sampling and analysis effort in order to include non-English literature in the analysis. This means that, given the breadth of the topic analyzed, other approaches to the same topic may be broader. Limiting systematic reviews to English only is common in systematic reviews and can result in biased estimates of effect and reduce the generalizability [23].

The use of the descriptors 'climate justice' and 'climate injustice' ends up not compiling studies that address issues linked to the relationship between social justice and climate change but that do not directly cite either term.

This review is limited to a general analysis of published works, and it is possible that new analyses, in the light of different methodological approaches and adopting new research contexts, will generate broader perspectives on the object of study.

3. Results

3.1. The Theme of Climate Justice in Academic Literature: A General Characterization of the Works

The total number of papers obtained after using the exclusion and inclusion criteria totaled 826 and dealt with climate justice, of which 717 (86.6%) belonged to countries in the Global North and 109 (13.2%) to countries in the Global South (Figure 2). The criteria used to divide and classify the sample was the country of the work institutions of the first authors of each material analyzed. This result adds to that of other systematic reviews on climate justice, in which the majority of authors focus on countries in Europe and North America [1,24–27].

This asymmetry in the percentage of publications is probably due to the fact that the issue emerged in the Global North and has faced difficulty in being addressed in countries of the Global South. An environmental justice organization, before Katrina, defined the key principles of climate justice based on the experience of environmental justice communities in the United States, with principles of reducing emissions and the use of fossil fuels, protecting vulnerable communities, ensuring a just transition to renewable energy, including community participation, acting in the face of uncertainty, ensuring intergenerational justice and demanding US leadership on the global issue of climate change [28]. In countries of the Global South, as in the case of Latin America, the issue of climate justice is mixed with other social issues related to the existing environmental issues. Countries of the Global South face the challenge of reconciling the confrontation of climate injustice with social inclusion, the transparency of policies adopted, and risk reduction at different scales and scopes [29,30].

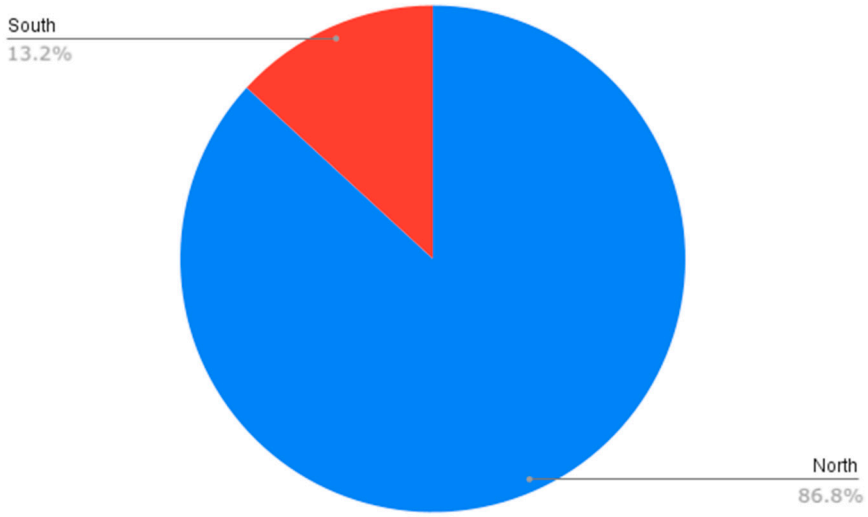

Figure 2. Distribution of work on climate justice (2000–2021) between countries of the Global North and South. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

To analyze trends involving climate justice studies, the articles were organized by the year of publication. The oldest article retrieved dates from August 2001, "*That petrol emotion: climate justice sinks under the pressure of carbon trading*", and was published in issue 54 of *Arena Magazine* and written by Domenica Settle of the University of Melbourne, Australia [31]. In the following years (2004–2015), the number of publications never exceeded 50 per year, followed by an increase of more than 195% in 2016 (Figure 3). Publications on the subject have increased over the last few decades, with the period from 2008 to 2010 seeing a large growth interval. This growth has seen a diversification of research topics, with an increase in articles on health, vulnerability and adaptation, and politics and activism [1]. One explanation for this situation is the fact that, in 2009, the 15th United Nations Conference of the Parties, held in Copenhagen, Denmark, brought climate justice as a feature of the negotiations, accompanied by a public and media discourse that exposed the contestation among climate activists [20].

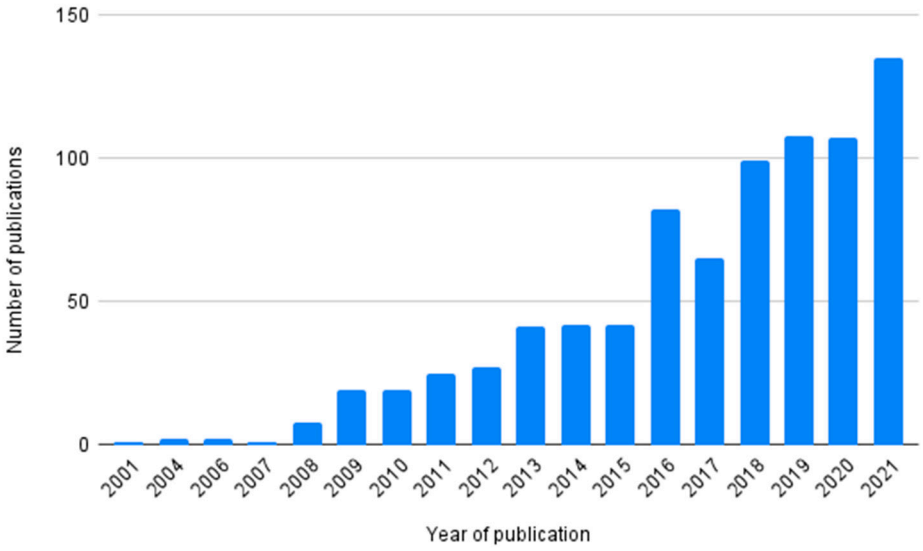

Figure 3. Publications on climate justice over the years (2000–2021). Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

The period from 2016 to 2021, the peak year, brought an exponential increase in climate justice publications. This comes a year after the 2015 approval of the Paris Climate

Agreement, a document that raised the debate on the social issue embedded in the global climate crisis and which is attributed to the efforts of members and allies of the global climate justice movement. The document presents challenges related to justice, including gender and generational inequalities, as well as human rights concerns, especially for indigenous communities [25].

Taking into account the 826 articles, the concept of "climate justice" appears in 584 titles. The country with the highest number of references was the United States of America, with 279, followed by the United Kingdom, with 118, and Australia, with 58. Brazil is the first country in the Global South to maintain a number of published works, with 35 in total (Figure 4). In the Web of Science and Science Direct databases, no papers were found with the terms in Portuguese. Scielo and Scopus presented four papers each, and Google Scholar, the most used database in Latin America, had 673 in this language.

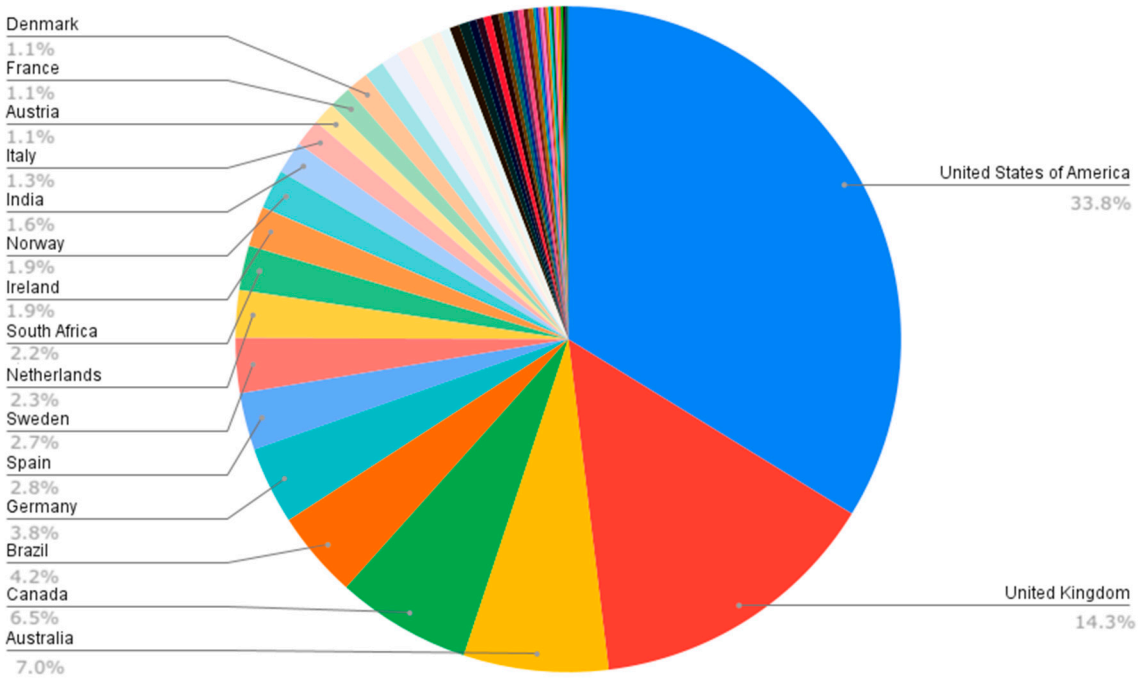

Figure 4. Climate justice publications (2000–2021) by country. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

Publications were found on six continents. Geographically, there is a concentration of work in the countries of the Global North (Figure 5). This result is also found in other reviews of the literature on climate justice, as well as the dominance of publications in English-speaking countries [1]. Some authors have nationality in countries of the Global South but are linked to institutions in countries of the Global North, which ends up influencing the construction of this panorama.

Four classes of grouping were reached when using the analysis of descending hierarchical classification (CHD) in the content of the abstracts, titles, and texts of the works (Figure 6). The objective here was to expose similarities and differences in content between the groups. The main themes found were international legislation (Class 1), resistance, oppression, and Anthropocene (Class 2), research and social movement (Class 3), and greenhouse gas emissions (Class 4).

These thematic axes reflect the link between the theme of climate justice and social concern and the emphasis of this subject on social movements fighting against the climate emergency. The detection of a concentration of works in the social sciences dialogs with the results of other systematic reviews of the theme analyzed [25,26]. There is a noticeable trend of research on the subject with a focus on public policy and social issues. Works that

highlight international legislation mostly emphasize the influence of the Paris Agreement on climate, highlighting the legal scope of the document.

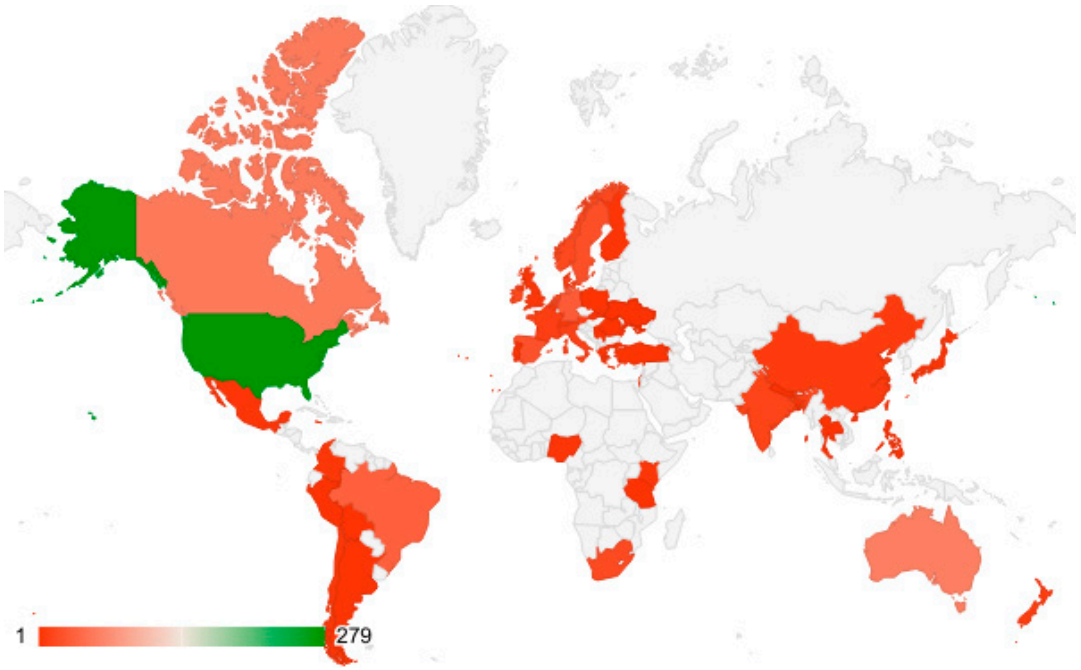

Figure 5. Global map of climate justice publications (2000–2021). Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

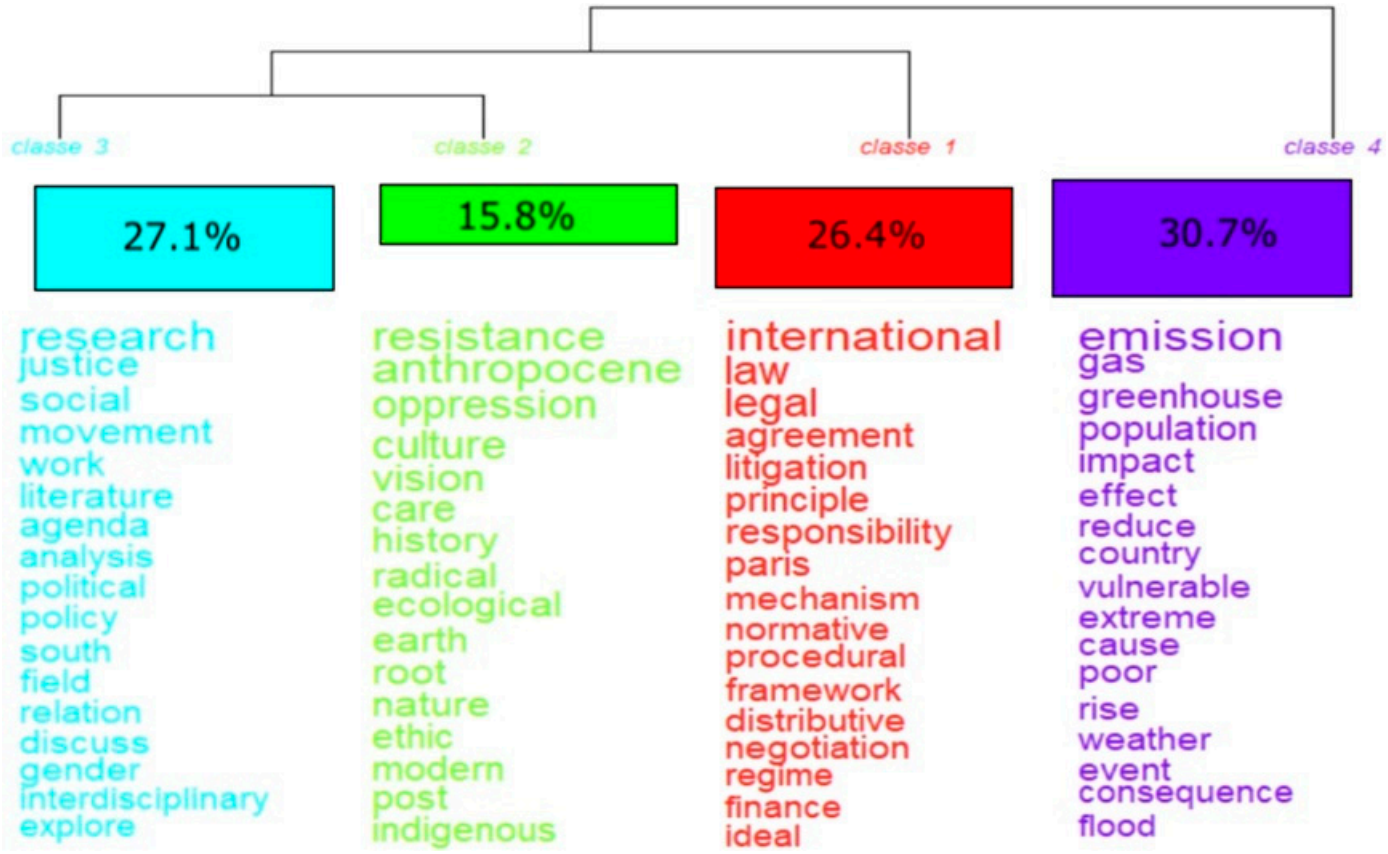

Figure 6. Descending hierarchical classification dendrogram of climate justice papers (2000–2021). Source: IRaMuTeQ Version 0.7 Alpha 2. Elaborated by the authors.

The most researched sub-themes in the Global North influence the final result due to the higher number of papers in the final sample. However, each group presents distinct publication profiles.

3.2. The Climate Justice Approach in the Global North

The concentration of publications in the Global North was expected, and it is located in the continents of North America, Europe, and Oceania, headed by the United States of America, the United Kingdom, and Australia, which are also countries with the highest number of publications (38.9%, 16, 5%, and 8.1% of the total, respectively) (Figures 7 and 8).

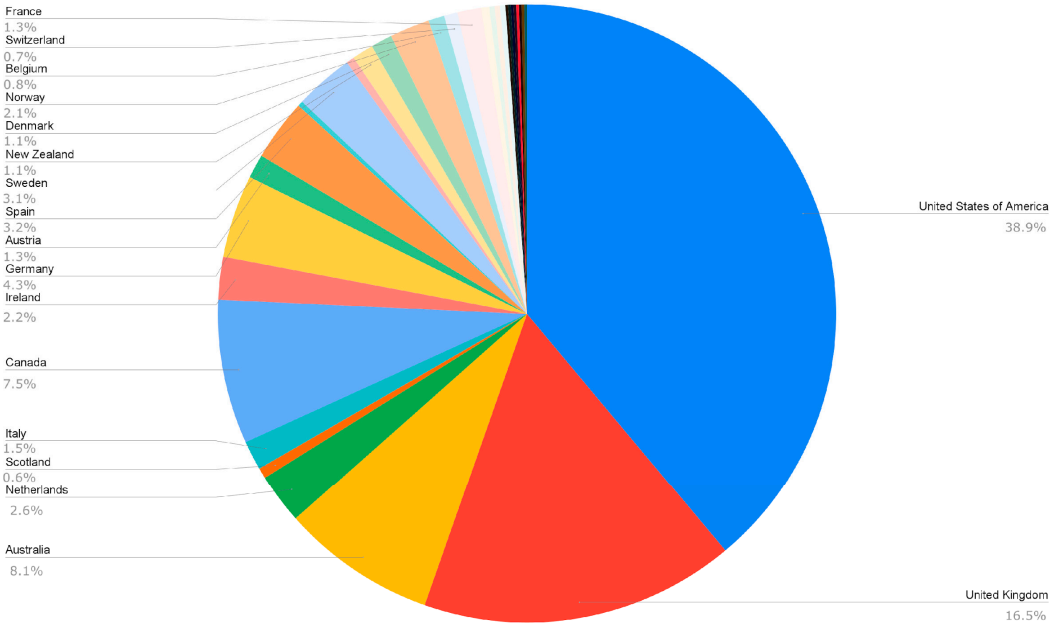

Figure 7. Distribution of work on climate justice (2000–2021) among countries belonging to the Global North. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

The dominance of these countries can be explained by easier access to academic information and greater funding for environmental research. Universities in the Global North can afford subscription fees for students and researchers, granting them access; however, the opposite is true for countries in the Global South. The Global North controls the institutions and outlets for publishing print and electronic knowledge, denying easy access to the Global South [32].

The CHD of the works from the Global North point to four groups of studies, with the themes of gender equity policy development (Class 1), legislation and legal concerns (Class 2), activist movements (Class 3), and greenhouse gas emissions greenhouse effect (Class 4) (Figure 9).

Such thematic axes indicate a more significant concern with the gender issue within climate justice, which is also interconnected with activism and organizations (Indigenous, students, and youth for the climate, among others). The discussion about the Anthropocene is linked to the physical–chemical question behind climate change, and there is a direct relationship between GHG emissions and the impact on the population, following the same trend as the global sample. On the other hand, scholars have pointed out the necessity of a more social, critical, and decolonial approach to the Anthropocene [33–35], which makes sense, mainly evolving the capitalist contribution to GHG emissions and unequal distribution of severe climate events.

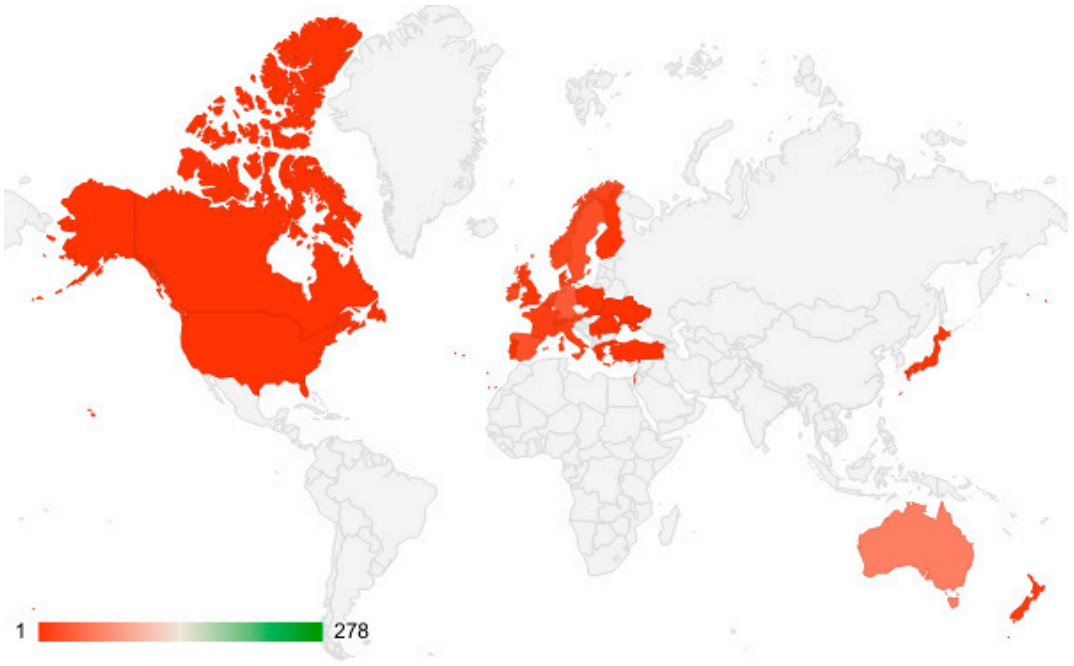

Figure 8. Map of the distribution of climate justice papers (2000–2021) among countries of the Global North. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

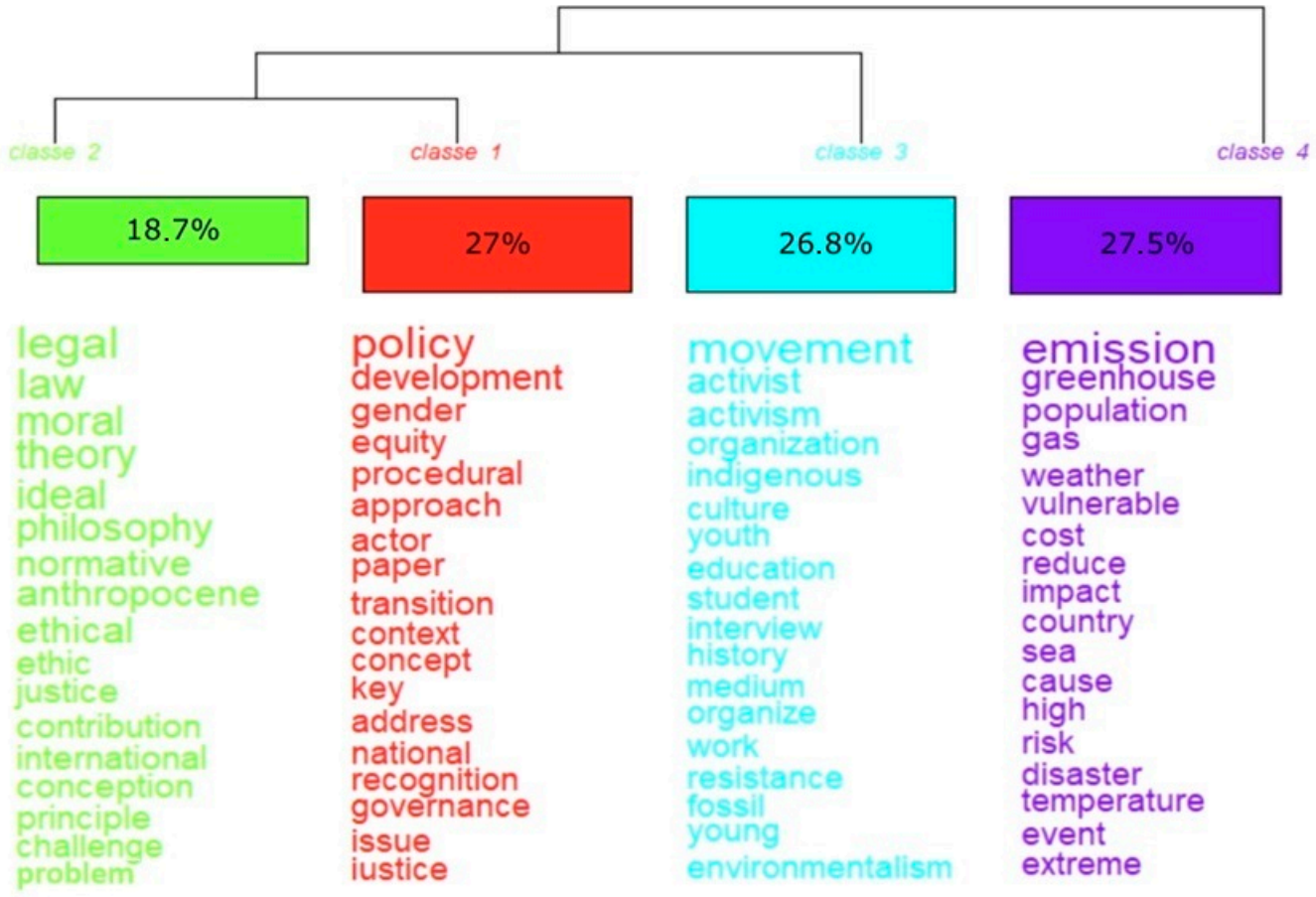

Figure 9. Descending hierarchical classification dendrogram of climate justice papers (2000–2021) among Global North countries. Source: IRaMuTeQ Version 0.7 Alpha 2. Elaborated by the authors.

3.3. The Global South and Climate Justice

Among the countries of the Global South, those that published the most on climate justice are Brazil, South Africa, and India, with 32.1%, 16.5%, and 11.9% of the total sample, respectively (Figure 10). South America was the continent that concentrated the most significant amount of work (Figure 11). Google Scholar presented the highest number of Spanish language papers, with 1885 appearances, compared to 4 in Scopus, 2 in Web of Science, 2 in Science Direct, and 6 in Scielo.

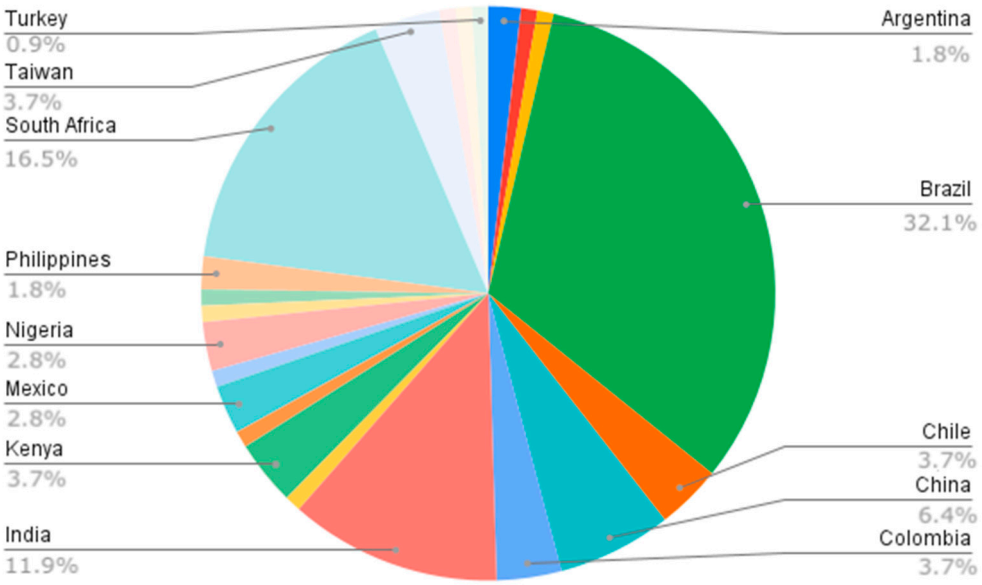

Figure 10. Distribution of work on climate justice (2000–2021) among countries belonging to the Global South. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

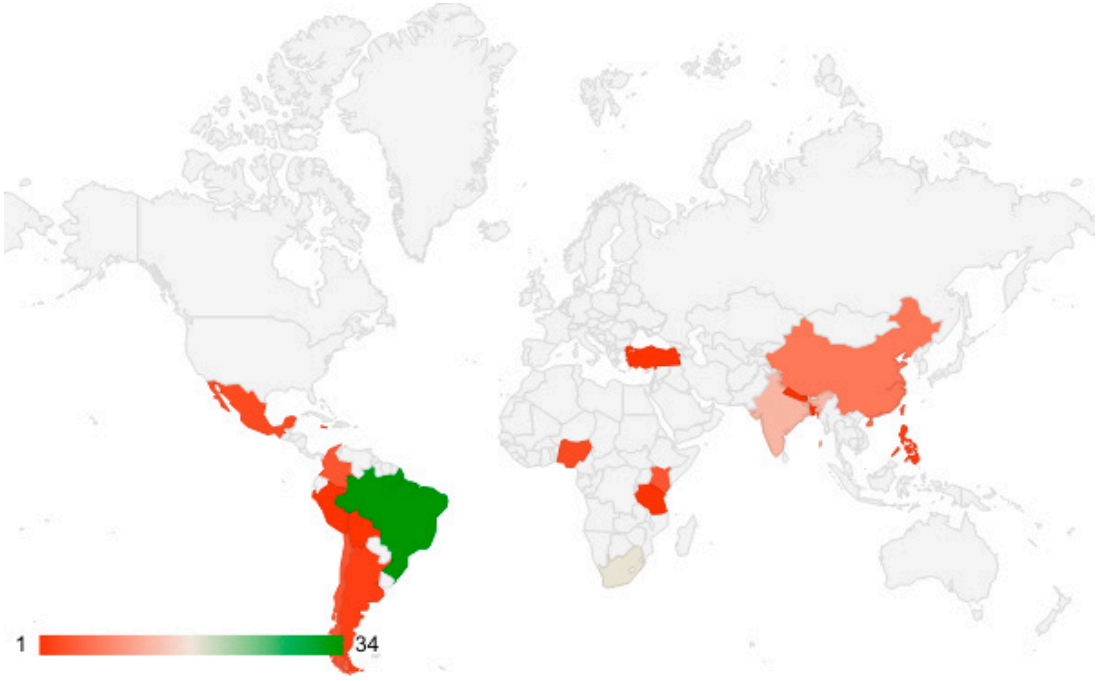

Figure 11. Map of distribution of climate justice papers (2000–2021) among countries of the Global South. Source: Web of Science, Scopus, Scielo, ScienceDirect, and Google Scholar databases. Elaborated by the authors.

Researchers in the Global South have limitations in producing and disseminating climate knowledge. Academics often run into "pay-walls" where access to data and knowledge is expensive, and academia and post-pandemic knowledge, in particular, have been financially diminished [32]. This is what some scientists call scientific coloniality [36], and it clearly also occurs when it comes to the debate about production on climate justice. This acts as a barrier since academic production and social movements in Latin America have contributed to building the climate justice agenda [37].

The insertion of the Portuguese language and Google Scholar in the research methodology allowed us to expand the panorama of works from Latin America, highlighting its representativeness for this theme. The heterogeneities of the countries of the Global South influence the different approaches to the theme and provide a counterpoint to the classes raised among the countries of the Northern Hemisphere.

In the similarity analysis, three classes of work groups were created to make the analysis clearer and with time-process marks. Class 1 has, as its central axis, a relationship between climate and socio-environmental policies, Class 2 focuses on knowledge, and Class 3 works on the issue of human rights and the Paris Agreement (Figure 12).

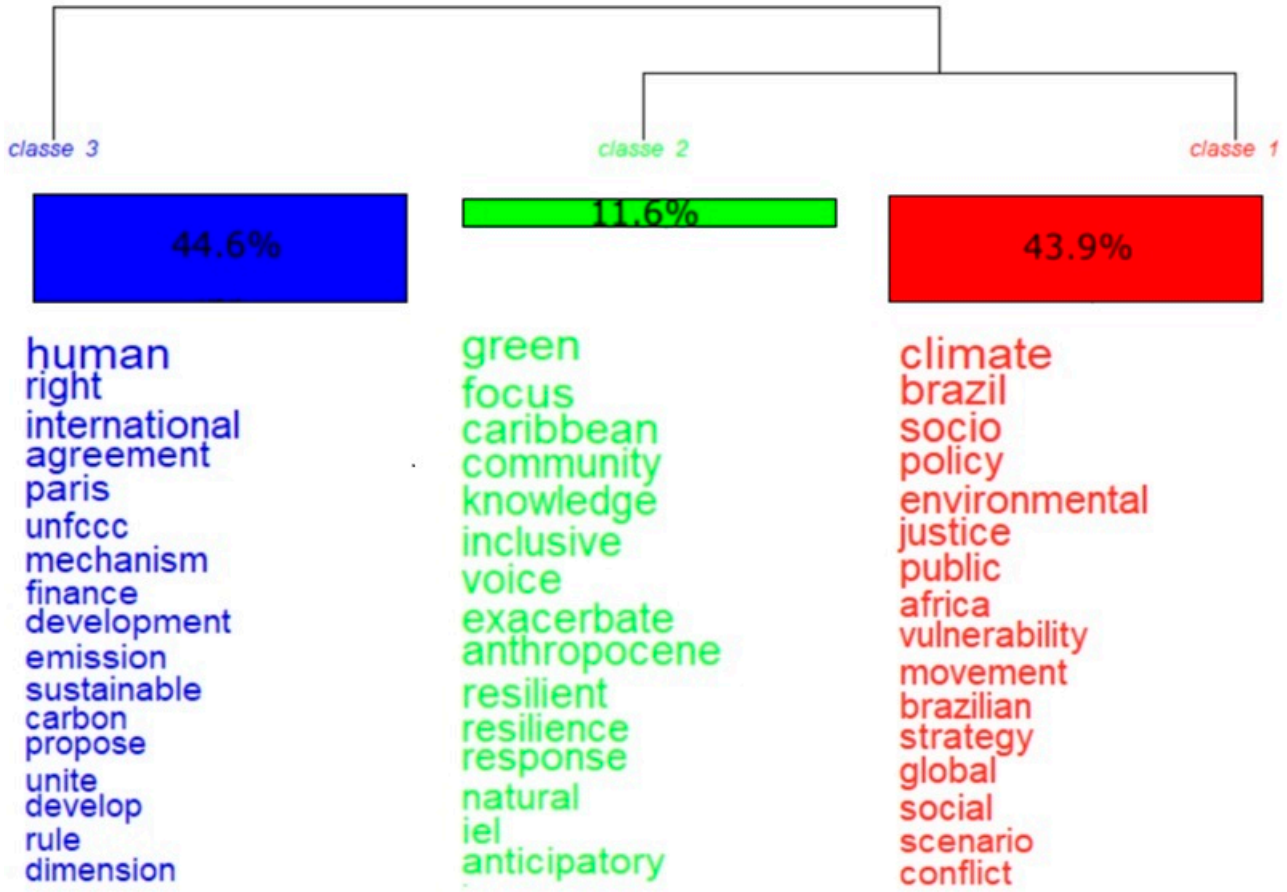

Figure 12. Descending hierarchical classification dendrogram of climate justice papers (2000–2021) among Global South countries. Source: IRaMuTeQ Version 0.7 Alpha 2. Elaborated by the authors.

It can be seen, therefore, that the focus of climate justice research in the countries that make up the Global South is mainly on the socio-environmental context and the social vulnerability of the population; in this group, it is the first time that this theme has been expressed in the analysis. To the detriment of the Global North, whose agendas are mainly associated with discussions on the inclusion of certain social groups in the climate debate, environmental agendas linked to social issues appear more prominently in these territories. Research on climate justice has developed over time, moving from focusing mainly on

the contributions of global and national emissions to analyzing justice at various scales, including the local one. This shift has allowed for a more in-depth examination of what is considered fair when making adaptation decisions [1].

4. Discussion

We understand (climatic) injustice through dialogue with authors such as Farhana (2022) [5] and Comim 2008 [38], for whom it is not possible to disregard the weight of climate coloniality in the process of building inequalities in countries in the Global South, and, more than that, that climate injustice is a widespread aspect of today's climate change challenges. This injustice is evident through imbalances in costs and benefits, as well as the diminishing capabilities of individuals. To fully understand how climate change affects poverty and human development, it is essential to situate this conversation within the broader context of how ecosystem services influence human well-being. Additionally, it is crucial to define what we mean by "climate justice" and leverage this understanding to explore policy directions that could lead to more effective responses.

The last decade has had a strong impact on the amount of climate justice publications produced globally. From 2011 to 2021, the number of publications quadrupled, with the main catalyst being the debates on the Paris Climate Agreement, which took place in 2015. Since then, we have seen the use of the notion of climate justice grow among social actors who previously did not incorporate such precepts. It is necessary, however, to be alert to panaceas and the rampant use of the term. It is crucial to identify and separate fighting agendas, principles of human rights, the fight against the capitalist system and colonialism, and environmental racism, propaganda, and greenwash. This is why, among other reasons, a prominent author in the field, Farhana Sultana [5], suggests the distinction of critical climate justice—one that preserves the disruptive values necessary for systemic transformation.

The concept of "climate justice" was first introduced by Elizabeth Weiss in 1989 in her academic article, "*In Fairness to Future Generation: International Law, common patrimony and Intergenerational Equity*", published in a book on intergenerational justice [28,39]. The term was later used politically for the first time by Indigenous activist Tom B. K. Goldtooth in 1995 during a speech in the United States. It took a significant period before this topic expanded into publications, reaching an expressive and rising number only in recent years. This interval probably happens because the theme of climate change has been worked with a detachment from the social issue inserted, focusing only on the bias of natural disasters. Finally, the social and human dimension has been growing—including IPCC reports [40], for example—with better support.

However, findings show that this growth is seen disproportionately between countries in the Global North and South. The North/South disparity when it comes to climate change is one of the key issues in achieving climate justice [32]. Countries of the Global North are economically and technically advanced, geopolitically powerful and influential, and dominate and dictate global resources and trade flows. Compared to the Global South, countries of the Global North are responsible for a disproportionately larger share of anthropogenic greenhouse gas emissions, which is driving climate change [41]. The most potent determinants behind the North–South climate policy impasse are probably not linked directly to global inequality but rather the scarcity of technical, financial, and administrative capacity in poorer nations.

Is the Social Inequality of the Global South Reflected in the Climate Justice of the Global North?

Another finding that reinforces this disparity is the main topics studied between countries. With climate emergencies, municipalities around the world are struggling to balance their economic development responsibilities with the protection of human health and well-being [42]. However, the social inequality prevalent in the Global South is not directly reflected in the discourse on climate justice in the Global North, as shown by the results. Topics directly related to this social disparity, such as politics, human rights,

coloniality, and environmental racism, are more influential in works from the Global South to the detriment of broader issues, such as activism and gender equality, in the North.

The Global South, now a trendy concept, has become a popular mode of framing in academic circles in the past decade [43]. Climate injustice is seen as another result of the exchange of matter and energy between the center and periphery of capitalism (the Global North and South), since in addition to leading to an ecological debt owed by the North to the South, this unequal relationship results in a scenario of unequal distribution of the risks arising from climate change since the vulnerability to climate variability is not only caused by biophysical factors but is also the result of an eminently political and social process [3]. The Global North, however, has a role in influencing climate agendas in countries of the Global South. The economic disparity between the two groups still exists in the field of climate debate, especially as the Global South has borne the brunt of weather catastrophes in recent years. There is still a need to recognize these inequalities and to align the global climate discourse with the specific needs of each country.

5. Conclusions

Interest in the field of climate justice studies is growing, which is reflected in the increase in the number of publications in recent years. The Paris Climate Agreement and the intensification of humanitarian tragedies related to severe climate impacts have played an important role in discussions about the social dimension of the global climate crisis, which has been reflected in the increase in publications on climate justice around the world. These articles advance on climate justice studies from a Global South perspective, showing that geographically, there is a concentration of studies and publications in countries in the Global North and, in these countries, the social agenda issue surrounding the climate crisis topic is approached furtively, without much complexity or based on broader terms, rather than relating to poverty or the redistribution of climate problems, such as coloniality or environmental racism, for example. Findings show that social agendas related to socio-climatic vulnerability are more prominent in works from countries in the Global South.

The main challenge lies in expanding climate justice research in countries of the Global South, focusing on how policies are being implemented to mitigate the impacts of extreme weather events. It is also necessary to consider the realities, challenges, and barriers of Latin American research appearing in articles and publications from the Global North, either because of the language (for example, Spanish, Portuguese, or French) or because academic journals are not read, much less cited, by this audience. Breaking with climate coloniality also means valuing the scientific production of southern countries, researchers, and non-academic actors and their knowledge base in these territories.

The main contribution of this article was to provide an overview of publications, highlighting the discrepancy in terms of volume and ease of access between the countries that make up the two regions. The assertion is made that climate justice, as a field of research, still presents barriers in terms of research, and the idea is to facilitate collaborations, strengthening the voices of countries that suffer directly from extreme climate events.

As such, barriers such as scientific coloniality also need to be faced head-on in climate studies. Questions remain open about resources and financing for research and also for publication since the costs for publication are extremely high for academics in the Global South.

Finally, another aspect that cannot be overlooked in studies on climate justice is climate coloniality and environmental racism, which must play a central role in discussions and actions to advance reflections and praxis on this topic so as to move forward with liberation and the formation of new, more fair, sustainable, and equitable territories.

It is recommended that future studies based on this review's results delve deeper into the work of the Global South by considering languages not covered in this research, as well as analyzing specific areas of knowledge that deal directly with climate justice.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/su16229888/s1, Table S1: PRISMA 2020 Checklist.

Author Contributions: All the authors conceptualized this study. M.T.d.A.F. carried out the database research and statistical analyses. All authors wrote and approved the final manuscript. All authors have read and agreed to the published version of the manuscript.

Funding: This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior–Brasil (CAPES)—Finance Code 001. The authors would also like to thank CNPq, within the scope of the research project "Climatic Shelters on the Coast of São Paulo". This study was financed, in part, by the São Paulo Research Foundation (FAPESP), Brazil. Process Number 2023/09825-4.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors upon request.

Acknowledgments: The authors would like to thank the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior–Brasil (CAPES) for granting the first author a PhD scholarship and the Graduate Program in Environmental Science of the University of São Paulo.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Parsons, M.; Asena, Q.; Johnson, D.; Nalau, J. A bibliometric and topic analysis of climate justice: Mapping trends, voices, and the way forward. *Clim. Risk Manag.* **2024**, *44*, 100593. [CrossRef]
2. Kashwan, P. Climate Justice in the Global North. *Case Stud. Environ.* **2021**, *5*, 1125003. [CrossRef]
3. Pires, G.; Rodrigues, L.S.; Dunder, B.D. A emergência climática sob o neoliberalismo: Reflexões desde a perspectiva da Justiça Climática Latino-americana. *Simbiótica* **2023**, *10*, 57–72. [CrossRef]
4. Malone, A.G.O. Quantifying Who Will Be Affected by Shifting Climate Zones. *Geographies* **2023**, *3*, 477–498. [CrossRef]
5. Sultana, F. Critical climate justice. *Geogr. J.* **2022**, *188*, 118–124. [CrossRef]
6. Roberts, J.T.; Parks, B. *A Climate of Injustice*; MIT Press: Cambridge, MA, USA, 2006.
7. Sultana, F. The unbearable heaviness of climate coloniality. *Political Geogr.* **2022**, *99*, 102638. [CrossRef]
8. Samson, J.; Berteaux, D.; McGill, B.J.; Humphries, M.M. Geographic disparities and moral hazards in the predicted impacts of climate change on human populations. *Glob. Ecol. Biogeogr.* **2011**, *20*, 532–544. [CrossRef]
9. Kamboh, S.A.; Ittefaq, M. Advocacy journalism and climate justice in a Global Southern country. *Local Environ.* **2022**, *28*, 412–432. [CrossRef]
10. Vaca, J.A. Litigio Climático y Derechos Humanos en el Sur Global. Apuntes para el debate. *Eunomía* **2024**, *26*, 416–433. [CrossRef]
11. Torres, P.H.C.; Leonel, A.L.; Pires de Araújo, G.; Jacobi, P.R. Is the Brazilian National Climate Change Adaptation Plan Addressing Inequality? Climate and Environmental Justice in a Global South Perspective. *Environ. Justice* **2020**, *13*, 42–46. [CrossRef]
12. Asmi, F.; Anwar, M.A.; Zhou, R.; Wang, D.; Sajjad, A. Social aspects of 'climate change communication' in the 21st century: A bibliometric view. *J. Environ. Plan. Manag.* **2019**, *62*, 2393–2417. [CrossRef]
13. Moreira, M.N.B.; da Veiga, C.P.; da Veiga, C.R.P.; Reis, G.G.; Pascuci, L.M. Reducing meat consumption: Insights from a bibliometric analysis and future scopes. *Future Foods* **2022**, *5*, 100120. [CrossRef]
14. Nalau, J.; Verrall, B. Mapping the evolution and current trends in climate change adaptation science. *Clim. Risk Manag.* **2021**, *32*, 100290. [CrossRef]
15. Chakrabarti, D. Urban theory of/from the Global South: A systematic review of issues, challenges, and pathways of decolonization. *Front. Sustain. Cities* **2023**, *5*, 1163534. [CrossRef]
16. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 statement: An Updated Guideline for Reporting Systematic Reviews. *Br. Med. J.* **2021**, *372*, n71. [CrossRef]
17. Moher, D.; Liberati, A.; Tetzlaff, J.; Altman, D.G. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med.* **2009**, *6*, e1000097. [CrossRef]
18. Pham, H.; Saner, M. A Systematic Literature Review of Inclusive Climate Change Adaption. *Sustainability* **2021**, *13*, 10617. [CrossRef]
19. Haddaway, N.R.; Page, M.J.; Pritchard, C.C.; McGuinness, L.A. PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis. *Campbell Syst. Rev.* **2022**, *18*, e1230. [CrossRef]

20. Cairney, P.; Timonina, I.; Stephan, H. How can policy and policymaking foster climate justice? A qualitative systematic review. *Open Res. Eur.* **2023**, *3*, 51. [CrossRef]
21. Souza, T.O.d.; Amaral, I.B.d.S.T.; Nascimento, F.T.M.d.; Martins, G.d.C.S.; Bossato, H.R. Bibliometria das publicações da revista 'Saúde em Debate': Uma fotografia da saúde mental. *Saúde Em Debate* **2020**, *44*, 305–319. [CrossRef]
22. Bahji, A.; Acion, L.; Laslett, A.-M.; Adinoff, B. Exclusion of the non-English-speaking world from the scientific literature: Recommendations for change for addiction journals and publishers. *Nord. Stud. Alcohol Drugs* **2022**, *40*, 145507252211022. [CrossRef] [PubMed]
23. Jackson, J.L.; Kuriyama, A. How Often Do Systematic Reviews Exclude Articles Not Published in English? *J. Gen. Intern. Med.* **2019**, *34*, 1388–1389. [CrossRef]
24. Alves, M.W.F.M.; Mariano, E.B. Climate justice and human development: A systematic literature review. *J. Clean. Prod.* **2018**, *202*, 360–375. [CrossRef]
25. Trott, C.D.; Gray, E.-S.; Lam, S.; Courtney, R.H.; Roncker, J.; Even, T.L. People's action for climate justice: A systematic review. *Local Environ.* **2023**, *28*, 1131–1152. [CrossRef]
26. Trott, C.D.; Lam, S.; Roncker, J.; Gray, E.-S.; Courtney, R.H.; Even, T.L. Justice in climate change education: A systematic review. *Environ. Educ. Res.* **2023**, *29*, 1535–1572. [CrossRef]
27. Jung, M.W.; Haddad, M.A.; Gelder, B.K. Examining heat inequity in a Brazilian metropolitan region. *Environ. Plan. B Urban Anal. City Sci.* **2023**, *51*, 109–127. [CrossRef]
28. Schlosberg, D.; Collins, L.B. From Environmental to Climate justice: Climate Change and the Discourse of Environmental Justice. *Wiley Interdiscip. Rev. Clim. Change* **2014**, *5*, 359–374. [CrossRef]
29. Seleguim, F.B. How do community responses from global south contribute to climate justice and resilience debate? *Ambiente Soc.* **2021**, *24*, e0148. [CrossRef]
30. Henrique, P.; Jacobi, P.R. *Towards a Just Climate Change Resilience. Palgrave Studies in Climate Resilient Societies*; Palgrave Macmillan Cham: London, UK, 2021. [CrossRef]
31. Settle, D. Review of That Petrol Emotion: Climate Justice Sinks under the Pressure of Carbon Trading. *Arena Mag.* **2001**, *54*, 25–27. Available online: https://search.informit.org/doi/abs/10.3316/ielapa.200114026 (accessed on 18 September 2024).
32. Allam, Z.; Jones, D.S.; Roös, P. Addressing Knowledge Gaps for Global Climate Justice. *Geographies* **2022**, *2*, 201–203. [CrossRef]
33. Sultana, F. Whose growth in whose planetary boundaries? Decolonising planetary justice in the Anthropocene. *Geo Geogr. Environ.* **2023**, *10*, e00128. [CrossRef]
34. Swyngedouw, E.; Ernstson, H. Interrupting the Anthropo-obScene: Immuno-biopolitics and Depoliticizing Ontologies in the Anthropocene. *Theory Cult. Soc.* **2018**, *35*, 3–30. [CrossRef]
35. Moore, J.W. *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*; PM Press: Oakland, CA, USA, 2016.
36. Ideland, M. Science, Coloniality, and "the Great Rationality Divide". *Sci. Educ.* **2018**, *27*, 783–803. [CrossRef]
37. Torres, P.H.C.; Leonel, A.L.; de Araújo, G.P.; Jacobi, P.R. Efecto Nueva Zembla y Justicia Climática en Brasil: Adaptación sin Justicia no es Adaptación, es Espejismo. Terra. Nueva Etapa, [Online] XXXVI(59). 2020. Available online: http://www.redalyc.org/articulo.oa?id=72166221004 (accessed on 19 September 2024).
38. Comim, F. Climate Injustice and Development: A capability perspective. *Development* **2008**, *51*, 344–349. [CrossRef]
39. Weiss, E.B. *In Fairness to Future Generations*; Hotei Publishing: Leiden, The Netherlands, 1988.
40. Victor, D. Climate change: Embed the social sciences in climate policy. *Nature* **2015**, *520*, 27–29. [CrossRef]
41. Yawson, D.O. Climate Mitigation and Hidden Vulnerabilities: Widening the Food Gap Between the Global North and South. *Environ. Justice* **2020**, *13*, 210–221. [CrossRef]
42. Anguelovski, I.; Shi, L.; Chu, E.; Gallagher, D.; Goh, K.; Lamb, Z.; Reeve, K.; Teicher, H. Equity Impacts of Urban Land Use Planning for Climate Adaptation. *J. Plan. Educ. Res.* **2016**, *36*, 333–348. [CrossRef]
43. Murcott, M.J.; Tigre, M.A. Developments, Opportunities, and Complexities in Global South Climate Litigation: Introduction to the Special Collection. *J. Hum. Rights Pract.* **2024**, *16*, 1–24. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.