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Author(s)	Tschötschel, Robin S.;Diamond, Emily P.;Howley, Shannon E.;McNally, Brenda;Morris, Hanna E.;Perry, Kelly E.;Wilhelmsen, Marthe Elden
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# Public Communication of Climate and Justice: A Scoping Review

Robin S. Tschötschel<sup>1</sup> | Emily Diamond<sup>2</sup> | Shannon E. Howley<sup>3</sup> | Brenda McNally<sup>4</sup> | Hanna E. Morris<sup>5</sup> | Kelly E. Perry<sup>6,7</sup> | Marthe Elden Wilhelmsen<sup>8</sup>

<sup>1</sup>Department of Social Sciences, University of Hamburg, Hamburg, Germany | <sup>2</sup>Harrington School of Communication and Media, University of Rhode Island, Kingston, Rhode Island, USA | <sup>3</sup>Department of Marine Affairs, University of Rhode Island, Kingston, Rhode Island, USA | <sup>4</sup>School of Communications, Dublin City University, Dublin, Ireland | <sup>5</sup>School of the Environment, University of Toronto, Toronto, Ontario, Canada | <sup>6</sup>Information Futures Lab, Brown University, Providence, Rhode Island, USA | <sup>7</sup>Nicholas School of the Environment, Duke University, Durham, North Carolina, USA | <sup>8</sup>Department of Global Development and Planning, University of Agder, Kristiansand, Norway

**Correspondence:** Robin S. Tschötschel ([robin.tschoetschel@uni-hamburg.de](mailto:robin.tschoetschel@uni-hamburg.de))

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## ABSTRACT

The intersection of public communication, climate change, and justice constitutes a nascent but growing interdisciplinary field of vital importance as climate change, driven largely by consumption patterns in high-income countries, disproportionately affects communities with limited adaptive capacity, raising profound justice concerns. This scoping review delves into the emerging domain of public communication regarding climate and justice and seeks to provide a comprehensive overview that may help guide future research. It maps the landscape of existing peer-reviewed journal scholarship, identifying trends and gaps across disciplines such as communication, energy politics, and urban planning. Following a birds-eye quantitative analysis of English peer-reviewed journal articles in the field ( $N = 250$  studies), six thematic areas are scrutinized in-depth: (1) activism and protest, (2) journalism and news media, (3) international negotiations, national policy, and local engagement, (4) art and cultural production, (5) climate obstruction and delay, and (6) communication effects on attitudes and behaviors. The review reveals, inter alia, a predominance of research originating from, and case studies focused on high-income countries, a strong reliance on qualitative methods, and a tendency to conceive of justice in terms of distributive rather than procedural or representational questions. In the authors' view, the review indicates a need for comparative research, quantitative studies, and a broader inclusion of perspectives from regions disproportionately affected by climate change—particularly from low- and middle-income countries. The authors call for a concerted effort to bridge the gap between activism and communication by emphasizing the critical role of justice-oriented communication in fostering a fair and rapid transition to a sustainable future.

## 1 | Introduction

This scoping review explores the nascent field of public communication on climate and justice, aiming to offer a guiding overview

to inform future research. Climate change poses major challenges to justice—the fair and equal treatment of all humans.<sup>1</sup> The primary global-level injustice stems from climate change being predominantly caused by historical consumption patterns in a small

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number of high-income countries in the “Global North,” affecting mostly those that have contributed least to the problem in the “Global South.”<sup>2</sup> It is crucial to note that a similar pattern of inequality repeats within many nation-states, where poorer citizens from historically marginalized backgrounds, such as low-income communities of color and Indigenous communities (Whyte 2020), with less financial capacity to adapt tend to experience the worst impacts of climate change because of this political economic marginalization (cf. Jafry 2019). At the same time, climate change mitigation and adaptation pose pressing questions about who bears the burden of the necessary economic and societal adjustments. Thus, climate change intersects with and potentially exacerbates existing inequalities and injustices at multiple scales (e.g., those associated with race, class, gender, citizenship status, and nationhood). Finding viable responses to address climate change thus demands careful navigation of how policies and measures interact with existing and new challenges to justice within and beyond state borders.

Enacting climate policies requires a high level of public support, which relies heavily on the perception that the efforts do not worsen social inequalities (Bergquist et al. 2022; Maestre-Andrés, Drews, and van den Bergh 2019; Schleich et al. 2016). Whether a given policy or initiative is just (and is perceived as such) does not depend solely on its material and immaterial impacts. In addition to this *distributive* dimension of justice, many people demand a fair say in the law- and rule-making that leads to new policies—the *procedural* dimension of justice. Many also call for their particular situation and historical experiences (of injustice) to be recognized in public debate and policy-making (*recognition* dimension of justice) (Schlosberg 2012).

Whether citizens perceive these demands to be fulfilled is, to a considerable degree, the outcome of communication (e.g., Gustafson et al. 2019; Martin and Mine 2021) that is public-facing, or accessible by the public. Such *public communication* includes, but is not limited to, information and public relations campaigns by governments and private actors, journalism and news reporting, arts and culture, and publicly available discussions on social media and other platforms. These phenomena have been extensively studied from the angle of various social science disciplines. Yet, we lack a cohesive summary of research on how the justice dimension of climate change is being communicated publicly and how this may contribute to public perceptions of what justice means in a climate context. “Justice” is invoked by those genuinely fighting for a more just transition, such as the communities most impacted by climate change and their allies. However, some actors aiming to derail movement toward a robust, equitable, and just responses to climate change also appropriate the language of social justice and leverage it as a “discourse of delay” in public fora (c.f., Lamb et al. 2020), as illustrated by the scientifically unfounded claim that “the [Paris] Agreement will slow economic growth, increase poverty, and exacerbate inequality” (Lomborg 2019). In light of such conflicting interpretations and appropriations, a deeper understanding of how justice is communicated is crucial amid increasing public debate, contestation and disinformation about justice in climate action.

The field of communication has historically focused on translating the natural science of climate change to increase public understanding and awareness of the challenges facing societies across

the globe and to boost public engagement with climate change (cf., Moser 2016; Whitmarsh, O’Neill, and Lorenzoni 2013). More recently, the field has recognized the role of communication in spurring pro-environmental behavior change and devoted attention to building support for robust climate policies (cf., Kumpu 2022). Recent years have seen a marked shift in communication practice and research, increasingly focusing on the societal dimension of the climate crisis and climate politics, thus often highlighting the issue of justice (e.g., Hase et al. 2021; Rice, Gustafson, and Hoffman 2018; Tschötschel, Schuck, and Wonneberger 2020). The field is also increasingly placing emphasis on engaging young people to imagine desirable climate futures (e.g., McNally and de Andrade 2022), for whom issues of climate justice play an important role.

As we examine in this review, over the past 15 years, research investigating climate change communication has begun to consider how notions of justice are conveyed publicly, but this field remains young and relatively disjointed. The body of literature spans various disciplines, including studies of communication, energy politics, regional and urban planning, deliberative decision-making, and development, among others. This scoping review aims to connect the various strands of literature to (1) offer an overview of English peer-reviewed literature from within the field, with a special focus on the approaches taken to conceptualize and centre justice in climate change within peer-reviewed journal articles, (2) provide a synthesis of the knowledge produced, and (3) initiate conversations to inform directions for this emerging area of interdisciplinarity.

In the following sections, we briefly discuss our review methodology, adopting standard procedures for scoping reviews (Peters et al. 2020), laid out in detail in our review protocol.<sup>3</sup> We then offer a quantitative, expanded view of existing journal article scholarship, identifying publication trends, authors, geographical focus, and conceptualizations of justice. Finally, we offer qualitative narrative summaries of six noteworthy thematic areas of research at the intersection of public climate communication and justice: (1) activism and protest, (2) journalism and (news) media, (3) international negotiations, national policies, and local engagement, (4) art and cultural production, (5) climate obstruction and delay, and (6) communication effects on attitudes and behavior. We conclude with suggestions for new directions for future studies of public communication of climate and justice.

## 2 | Methods

This scoping review followed a methodological template outlined in the “PRISMA extension for scoping reviews” (Tricco et al. 2018), aiming for transparency and reproducibility of our results. To begin with, we include English-language peer-reviewed published studies gathered from three prominent databases (Proquest, Scopus, and Web of Science)—which excludes pertinent literature such as non-English publications and other forms of academic and non-academic output. We discuss this limitation in greater detail in our conclusions below; we believe that journal publications serve as a viable indicator of prominent themes within this interdisciplinary field and are an influential and, thus, important corpus of literature to study.

In this review, we include articles that substantially address the intersection of three concepts as a research question or draw substantive conclusions about that intersection: (i) *climate change or the net-zero transition*, (ii) *public communication*, and (iii) *justice*. To be eligible for review, each concept must be meaningfully addressed; the mere mention of all concepts is insufficient. With each concept, we aimed for a general conceptualisation (see sidebar and Appendix I). For example, we include various formulations of justice broadly rather than “climate justice” or “social justice” specifically.

#### Sidebar I: Climate Change, Public Communication, and Justice

In our review, we use the following definitions:

*Climate change or the net-zero transition*: climate change and its impacts, efforts aimed at obstructing or promoting a societal response (adaptation and mitigation), and the (positive or negative) consequences of such efforts.

*Public communication*: any type of communication that is public-facing and openly available, including, for instance, studies of journalism and news reporting, press releases, political campaigns, public protests, websites, social media, art, and cultural production.

*Justice*: We explicitly include justice in various theoretical formulations, such as distributive justice, procedural justice, recognition justice, energy justice, climate justice, environmental justice, social justice, and inter-species justice.

## 2.1 | Screening and Study Selection

We used a multi-step process to select studies for consideration (see Figure 1). Following systematic keyword searches (for a list of keywords, see Appendix I) in the three databases, yielding 1867 unique articles, we used an AI-assisted review tool to screen articles based on their abstracts (van de Schoot et al. 2021). This approach begins with using human coders to decide which articles should be included from a random set

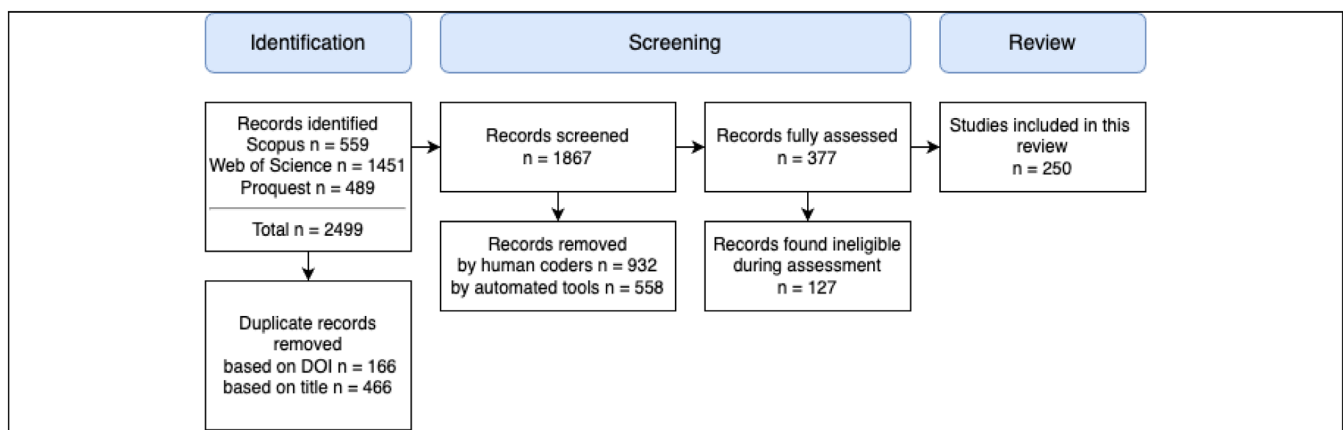
of abstracts. Subsequently, we trained a computer program to predict which articles would likely be included from the rest of the corpus in the form of a ranking. The top suggestions from the computer program were reviewed by human coders, and the results were used to update and refine predictions by the program. This step was repeated until a set of pre-defined stopping criteria was reached (see Appendix I). Finally, to ensure a high level of validity and minimize exclusions of relevant articles, we followed the “SAFE procedure,” consisting of additional model runs and human inspection steps (Boetje and van de Schoot 2024).<sup>4</sup> Overall, 932 articles were marked irrelevant by human coders, and 558 were excluded as an outcome of the procedure. Out of the remaining 377, another 127 were found to be ineligible upon close reading, yielding 250 studies included in this review.

## 2.2 | Data Extraction and Analysis

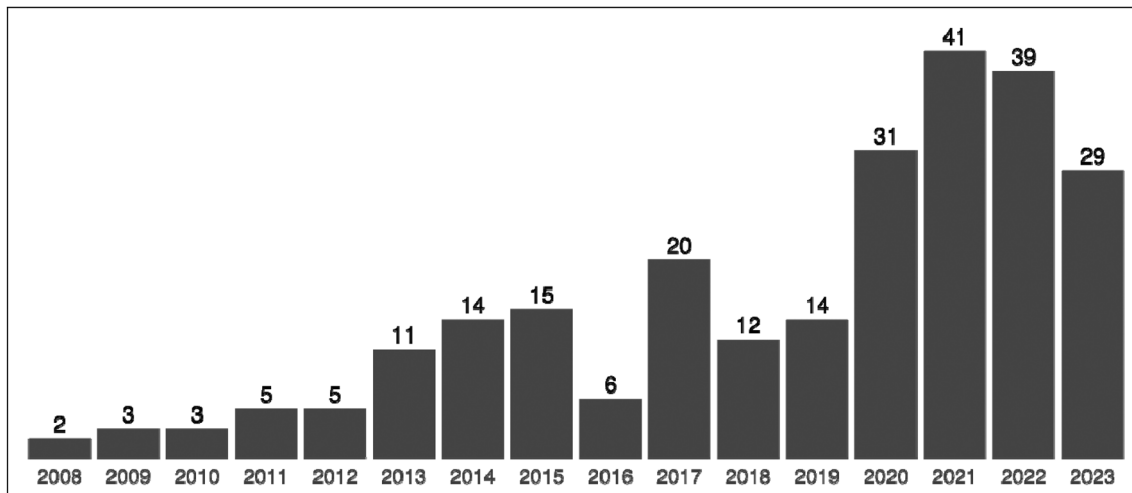
To extract the information presented in the following section, we collaboratively developed a codebook, which was pilot-tested and then refined in team meetings throughout the coding process. (Appendix II). Some of our coding categories evolved inductively or were refined throughout the coding process (e.g., the “justice-affected groups”). In these instances, any adjustments were discussed with all reviewers to ensure a cohesive revision of the coding protocol and consistent re-coding. Some other coding categories were open (free text entry) and discussed after coding was finished to inform our narrative summaries. Two reviewers read and annotated each article in depth; disagreements between coders were resolved by consensus (reviewers met to discuss the article or coding in question to attempt to come to a consensus decision) or a third reviewer when consensus could not be reached (Tricco et al. 2018).

## 3 | Whole-Corpus Statistics

Some general information about the corpus of literature and the authors contributing to it offers an interesting backdrop to the following discussion. As shown in Figure 2, most publications are from after 2010, and the quantity increased considerably beginning in 2020. Overall, the 250 studies included in this review were published in 155 different journals, speaking to the



**FIGURE 1** | Article retrieval and selection process. The authors used an AI-assisted review tool to facilitate abstract screening.



**FIGURE 2** | Frequency of journal article publication over time. Data based on bibliometric information from the providing databases (Scopus, Proquest, Web of Science).

diversity of the field. Only eight journals have more than three publications each, with no outlet collecting more than 10 publications (see Appendix III for more details).

### 3.1 | Authors and Geographical Focus

Most authors (63%) of the studies analyzed use “she/her” pronouns.<sup>5</sup> In some ways, this is surprising, given overall gender imbalances in academia, but might reflect that recent waves of climate (justice) activism were largely carried by women and girls. Figure 3a shows that most authors are affiliated with universities in high-income countries, particularly the Anglophone countries: 64% of the first authors’ institutions are situated in Australia, Canada, the UK, and the US, although this may be partly driven by the focus on English-language publications.

We next examined the geographical focus of the research. The first panel of Figure 3 depicts an increasingly wide array of countries that were studied. Still, large parts of the globe—particularly low- and middle-income countries in sub-Saharan Africa and South America—have not been considered in the corpus of studies analyzed here. The two panels of Figure 3 demonstrate that a broader range of countries was studied than is represented among the first-author institutional affiliations, indicating a field dominated by researchers from a few countries. In addition to the countries mentioned, several articles took regions or supra-national bodies as their context of study.<sup>6</sup>

### 3.2 | Research Scope and Analytical Approach

As can be observed from Figure 4a,b, most research was qualitative and focused on a single (sub-)national case. Few studies offered comparative work, and while there was some theoretical interest in climate and justice, this work pales compared to the empirical literature. On the one hand, this indicates a strength of the field: its focus on understanding climate (in)justices and on-the-ground initiatives advocating for climate and justice

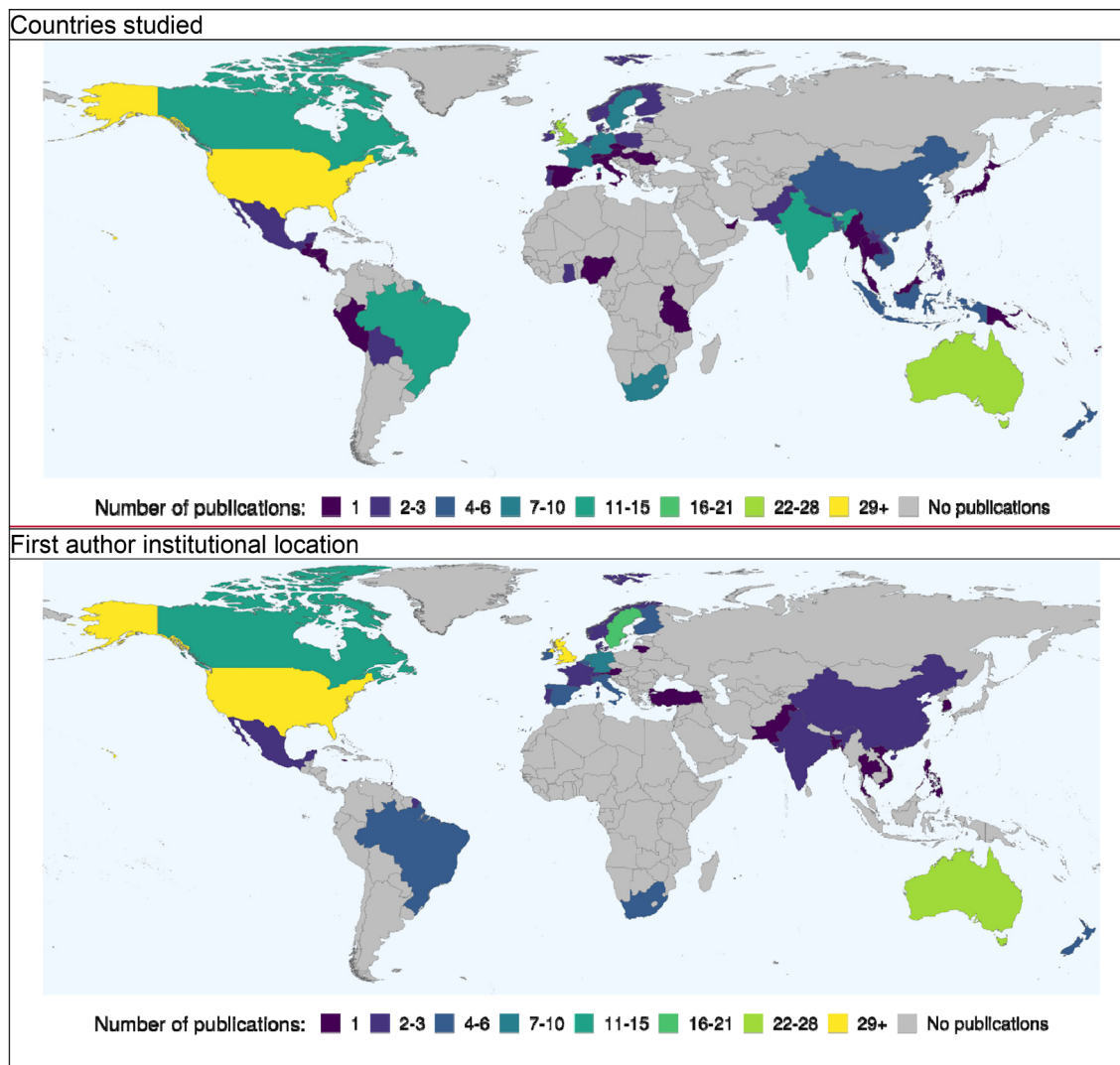
(discussed below). On the other hand, there is little overarching theory connecting the concepts of climate, justice, and public communication, which would be crucial for bringing the field to maturity.

### 3.3 | Linking Climate and Justice

How have the links between climate and justice been conceptualized in the articles analyzed? To begin with, the top panel of Figure 5 shows that mitigation efforts and the impacts of climate change were most frequently mentioned as posing a challenge for justice. This is closely followed by the recognition that there are differences in responsibility for climate change (often conceptualized between countries), while adaptation has received less attention. Examining the scope of the justice challenges considered (lower panel of Figure 5), most studies (38%) conceived of climate and justice within the framework of the nation-state (e.g., injustices between groups within a single country), reflecting the focus on single-country case studies discussed above. A similar number conceptualized justice at both national and international levels (34%), and less focused solely on the international (between-state) dimensions of justice (14%).<sup>7</sup>

Considering the question of who is affected and what is at stake when it comes to climate and justice, the top panel of Figure 6 shows a focus on the distributive dimension of justice, with 64% of articles considering this aspect. However, since many authors considered multiple justice dimensions, recognition and procedural justice are not far behind (57% and 42%).<sup>8</sup> The lower panel of Figure 6 highlights the characteristics of people considered pertinent to questions of justice. How authors consider these characteristics and the dimensions of justice will be explored further in the next section of this article.

Finally, Figure 7 depicts a non-exclusive categorization of studies into various research areas, which we will discuss in greater detail in the next section. The figure shows a strong focus in the literature on “Activism and Protest,” followed by “Journalism and Media”—unsurprisingly, as much public communication



**FIGURE 3** | Countries studied and first author institutional location. The top panel shows the countries studied (multiple mentions possible). The lower panel shows the countries of the first authors' institutional affiliation.

about climate and justice occurs on the streets and in the (news) media. These are followed closely by a focus on “Negotiations, Government, and Policy,” with “Public and Local Engagement” and “Art and Culture” receiving slightly less attention. In the following section, we present narrative summaries of these prominent areas of research, supplemented with two additional themes of interest: “Climate obstruction and delay” and “Communication effects on attitudes and behaviours.”

#### 4 | Prominent Areas of Research

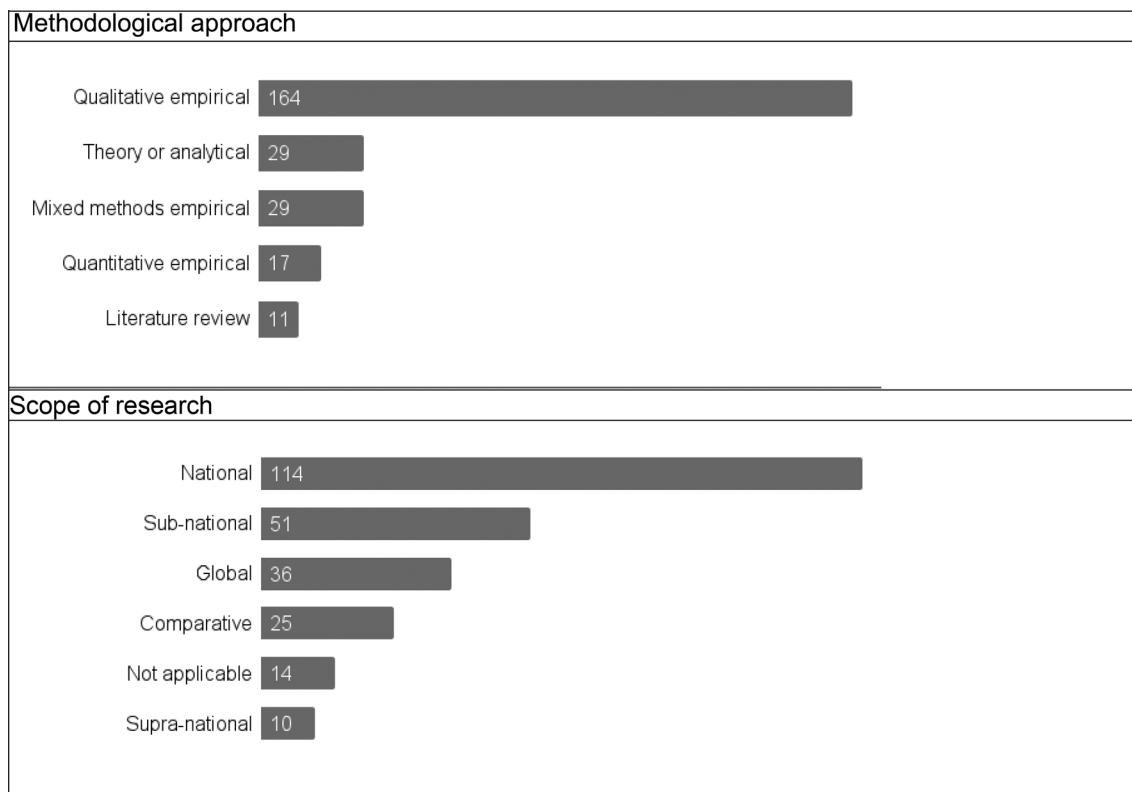
In this section, we review and present a selection of research from our corpus, organized by thematic areas identified during an in-depth reading of the entire corpus of 250 relevant studies. Rather than discussing all studies (the full list can be found in Appendix III), we focus on those that illustrate research characteristics within each thematic area. We investigate how authors in each area tended to conceptualize the links between public communication of climate change (or the transition away from greenhouse gas emissions) and justice, and we highlight implications for future research and practice from each area.

#### 4.1 | Activism and Protest

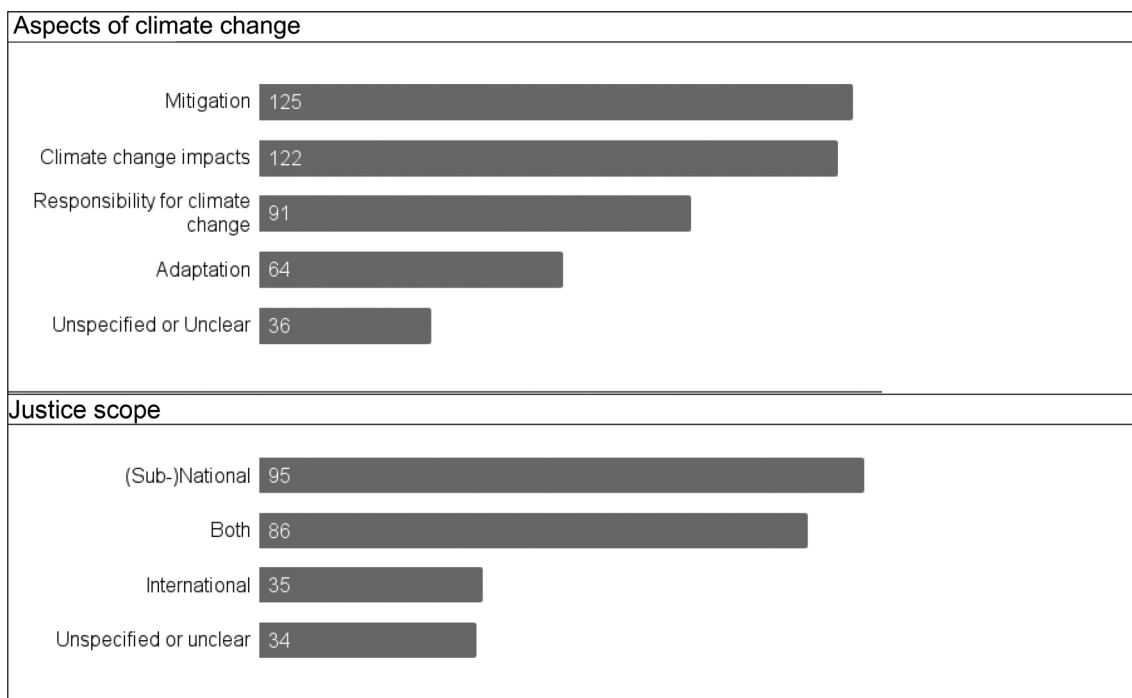
A considerable share of the articles reviewed (49%) studied activism, protest, and social movements. Here, the links between climate and justice are often clearly articulated by the actors in the field, advocating for various understandings of climate, environmental, and energy justice. Researchers in this area frequently refrained from offering their own definitions of justice but focused on highlighting and discussing the tactics, views, and motivations of those advocating for a more just response to climate change.

##### 4.1.1 | Tactics and Strategies

To begin with, a number of studies focused on the question of how activists “frame” their activities and goals and the distinctions and disputes within climate change demonstrations (Emilsson, Johansson, and Wennerhag 2020). For example, authors find a “neutral” framing of climate justice directed at state versus non-state actors (de Moor et al. 2021), a climate justice framing aimed at countering structural vulnerabilities (Chaudhuri 2021), and prognostic (i.e., future-oriented) climate



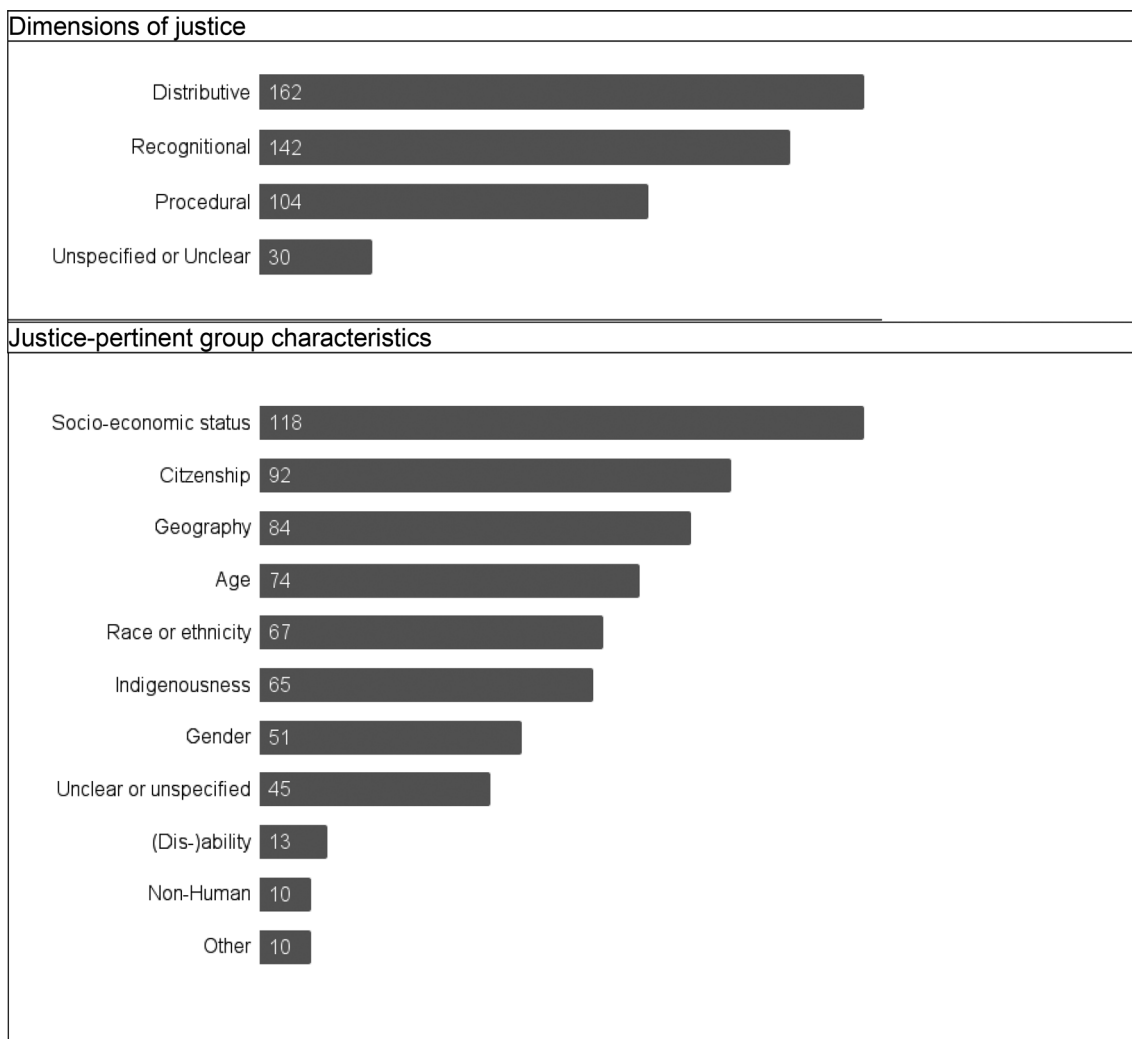
**FIGURE 4** | Methodological approach and scope of research. The top panel shows the methodological approach taken. The bottom panel shows the scope of the article (comparative can be multiple national, supra- or sub-national contexts).



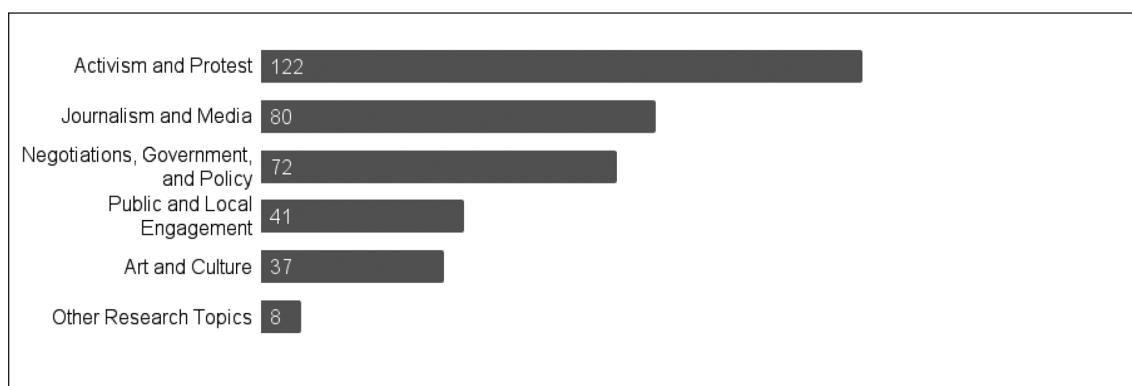
**FIGURE 5** | Aspects of climate change linked to justice and justice scope considered. A non-exclusive categorization which aspect of climate change was considered as a justice concern by the author.

justice framings (Wahlstrom, Wennerhag, and Rootes 2013). While activists and protesters advance clear justice-oriented frames, they do so using various tactics, including humor (Mayes and Center 2023).

Some articles focused on fossil fuel divestment activism—a movement leveraging climate science to inform calls for institutions and individuals to divest financial holdings from fossil fuels and fossil fuel companies. Analyses investigated actions and



**FIGURE 6** | Justice-affected groups. Overview of which social groups/categories were seen as potentially affected by injustice linked to climate change by the author (multiple categories possible).



**FIGURE 7** | Thematic Areas of research. Research areas based on inductive coding by the reviewers, omitting a generic “communication research” category (non-exclusive).

tactics employed by a variety of stakeholders within campaigns, including students (Grady-Benson and Sarathy 2016; Healy and Debski 2017) and faculty and alumni (Maina, Murray, and McKenzie 2020)—with social and climate justice identified as a key pillar in activist tactics as well as institutions’ decisions to divest. Articles also examined overarching divestment narratives

(Mangat et al., 2018) and their impact on institutional sustainability discourses (Healy and Debski 2017). A few articles positioned divestment framing within the context of climate justice and systemic change, exploring its alignment with other climate change movements informing government policy (Muncie 2021) and social justice movements (Gibson and Duram 2020).

In addition to describing activist tactics, researchers in this area also directly advance climate and justice activism, identifying gaps and strategies to address them. For instance, Cammaerts (2023) uncovered climate movement discourses and actions as well as media representations of the YouthStrike4Climate movement, identifying gaps in class and race that require emphasis on intersectionality. Fine (2022, 2023) explored activists' communication strategies, proposing a differentiated approach toward climate justice communication specific to activists' target audiences. Pellow, Williams, and Rizo-Centino (2022) called for cross-sectoral collaboration in knowledge production and communication for climate justice.

#### 4.1.2 | Protesters and Motivations

Turning toward activists and their motivations, a few articles analyzed protesters' social backgrounds and identities and their resulting strategic choices within movements (Della Porta and Portos 2023), showing, for instance, how girls' identities shape their mobilization and activism (Huang and Bent 2022). Kenis (2021) similarly explored conflicting tactics between generations, while Wilgosh, Sorman, and Barcena (2022) analyzed actors within the Just Transition movement, harkening to lessons learned from labor and environmental struggles. Additionally, a few articles acknowledged the complexity and intersectionality of climate change activism and how it interrelates with questions of justice. For instance, Pakin-Albayrakoglu (2022) challenged heterosexuality and patriarchy in the climate justice movement, arguing for human rights advocacy, and Pye (2010) emphasized overlapping themes voiced by peasant activists, such as food sovereignty, biodiversity, and climate justice.

Some articles analyzed activists' broader perspectives and motivations: Fernandes-Jesus, Lima, and Sabucedo (2020) showed that moral and justice-focused motivations and identification as "environmentalists" were key predictors of climate protest participation. Martiskainen et al. (2020) illustrated the variety of knowledge, emotions, and motivations of activists within the "Global North," and Hadden (2014) illustrated how ideas and views from within the global justice movement inspired and influenced the climate justice movement. At a local and regional level, Widener (2013) showed how environmental justice and climate debates can serve as mobilization points for community groups, and Sherval (2023) investigated community interpretations of and relationships between justice, policy, and energy transition of local residents in the UK resisting unconventional (shale) gas.

Researchers debate how politicized climate (justice) activism is: Chen (2021) argued that the rise of climate activism depicts decreased public trust in capitalism's ability to thwart climate change's impact. Kyllönen (2014) illustrated how some activists argue that damage to the global public good of a healthy climate can justify private property damage. Similarly, Scherhauser, Klittich, and Buzogany (2021) discussed how such civil disobedience by the climate movement challenges democratic procedures in the German energy transition. Still, Hinks and Roedder (2023) argued that activists' positioning of science to

depoliticize debates about the climate hampers associations to justice.

#### 4.1.3 | Youth Activists

Multiple articles on activism explicitly focused on young people and youth activists. Gasparri et al. (2021) argued that young people are pioneering a human rights-based approach to climate issues. Others similarly analyzed youth activism's impact—pushing cost-benefit and climate justice frames to penetrate United Nations Framework Convention on Climate Change (UNFCCC) and gaining support external to the climate movement (Nisbett and Spaier 2023) as well as its function as a catalyst for social justice (Cherry 2021). Activism also leaves its mark on those participating: Huttunen and Albrecht (2021) demonstrated how participating in Fridays for Future shapes young people's perceptions of environmental citizenship and justice, and Hilder and Collin (2022) illustrated how youth-led organizations foster political interest and climate justice-oriented action.

A cluster of articles discussed factors influencing youth participation in protests, such as social, economic, and situational injustices driving participation in Fridays for Future in the "Global South" (Prendergast et al. 2021); youth perspectives of protests (Arnot et al. 2023); and repertoires of actions—such as increased politicization and linking various injustices related to climate change—conducted by youth protesters (Zamponi et al. 2022). Conversely, Howard, Howell, and Jamieson (2021) investigated the role of parenthood in framing and motivation for action toward intergenerational justice.

## 4.2 | Journalism and the Media

Research exploring the intersections between media, journalism, and justice (in total 32% of articles) primarily focused on news media's opportunity to raise public awareness of social and environmental injustices, with roughly equal attention given to studies of media coverage in the high-, middle-, and low-income countries. While most studies assessed news media coverage of climate mitigation and adaptation responses, a subset additionally explored media representations of those affected by climate change and the policies aimed at addressing the issue. A final set of studies examined the interrelations of journalism practice, newsroom culture, and justice, highlighting how both an explanation and a remedy to shortcomings identified by many authors could be addressed within newsrooms.

Analyses of mainstream print media show that issues pertaining to climate and justice are often at the margins of news reporting (Das 2019; Dreher and Voyer 2015), and several studies examined the oversights in the coverage of climate-related politics (e.g., Das 2020; Gebara et al. 2017; Pham, Di Gregorio, and Brockhaus 2017). Authors argue that this plays out at the international, national, and subnational levels. Gurwitt, Malkki, and Mitra (2017), in their comprehensive review of news coverage of COP21 in 2015, found a bias toward developed nations' perspectives and critiqued a lack of engagement with issues and perspectives centered on justice. Similarly, comparative analysis of

news media framing of climate justice in Germany, India, and the US, Schmidt and Schäfer (2015) found a focus on nation-state understandings, which, as Stoddart and Smith (2016) pointed out, downplays the already occurring climate-related social impacts at subnational political and geographic scales. Similarly, Das (2020) critiqued Indian national newspapers' exclusion of local climate justice perspectives.

Studies also found the marginalization of environmental justice in the context of globalization and development across media (Das 2019; Moernaut, Mast, and Pepermans 2018; Rao 2012). For example, an analysis of media coverage of large-scale hydro projects in Canada highlighted the problematic rise of 'eco-extractivism' accompanying the current 'green energy enthusiasm' (Walker et al. 2019). The authors argued that media coverage failed to consider the detrimental impacts of renewable energy projects on Indigenous communities' ways of life and culture. Other studies drew attention to the misrepresentation of climate-impacted communities, highlighting the media's tendency to portray historically marginalized communities as passive "victims" as opposed to active agents (Dreher and Voyer 2015; Roosvall and Tegelberg 2015). Similarly, Shea, Painter, and Osaka (2020) noted an overemphasis on "narratives of vulnerability," arguing that this further obscured the resilience and agency of communities at the frontlines of climate change.

A few articles studied media coverage regarding the interplay between climate change, extreme weather events, and climate justice. Cordner and Schwartz (2019) identified a relative silence regarding climate change's impact on wildfires and its disproportionate effects on low-income communities and vulnerable regions in the US. Similarly, Milanez and Fonseca (2012) observed an absence of coverage associating extreme weather with climate change, with a notable absence of stories about climate justice. Nevertheless, Yoon and Hernandez (2021) highlighted increasing coverage of social inequities related to energy insecurity from extreme heat and cold between 1980 and 2019 in US newspapers. Still, the authors discovered significant omissions: the voices of those directly affected and recognition of the links between energy insecurity and poverty.

One of the reasons for the shortcomings of journalism and news reporting, but also one of its potential remedies, is found in the composition of newsrooms: Craig et al. (2023) linked a racial gap in environmental concern in the US to the lack of newsroom racial diversity. At the same time, authors argue that journalists, their values, and their practice hold considerable potential to address some of the shortcomings of news reporting. Premised on journalism's normative role regarding climate change, a set of studies advocate the benefits of strengthening a climate justice lens among journalists (Kamboh and Ittefaq 2023; Rao 2012; Roosvall and Tegelberg 2015). Adopting such a lens and having more diverse newsrooms could contribute to more frequent and better coverage of the links between climate and justice.

The studies in this area of research highlighted the role that media outlets and journalists play in defining the values and frames through which audiences understand the climate crisis and point to the role of the media in informing citizens of climate

injustices and the importance of action (e.g., Laksa 2014; Liang et al. 2014; Post, Kleinen-von Konigslow, and Schafer 2019). An example of how the media can live up to its responsibility is evident in the coverage of Fridays for Future strikes in German online newspapers: while reproducing existing power structures, it highlights an intergenerational justice frame (Lena, von, and Tulloch 2021). Similarly, Hayes and O'Neill (2021) show visual presentations around climate protests in British media shifting away from a "protest paradigm" toward intergenerational equity issues.

### 4.3 | International Negotiations, National Policy, and Local Engagement

Another notable area of interest is the activities of nation-state representatives and other official actors and their interactions with citizens, NGOs, and businesses, debating policy at various levels. In this area of research, the focus lies on the tension over different conceptualizations of justice advanced by different actors. In addition, researchers often take a critical stance, identifying gaps in how questions of justice are (or are not) being treated in official fora.

#### 4.3.1 | International Negotiations

Several studies (29% of articles analyzed) investigated how conceptualizations of climate justice have been used at the UNFCCC negotiations, both to shape overall discourse and to strategically advance particular interests. Bäckstrand and Löfbrand (2019) argued that notions of climate justice in negotiation discourse emerged from prior ideas about civic environmentalism, while Audet (2013) identified three main discourses on climate justice in the negotiations: a North-South duality over historical responsibility, the problem of cost-sharing for mitigation, and the urgency of ambitious action. Lefstad and Paavola (2023) additionally noted issues of procedural justice at the negotiations, noting the lack of capacity of smaller nations to participate fully. Others observed how state actors use notions of climate justice strategically to advance their interests in these fora, such as gender inequity (Gay-Antaki 2020) and public health (Allan 2023).

Other studies looked at the role of non-state observers (including NGOs and activists) in the global negotiations around climate change. Allan and Hadden (2017) and Allan (2023) highlighted NGOs' role in the eventual inclusion of specific justice-related issues such as "loss and damage" and health in the Paris Agreement. Several studies also investigated how activists shape climate justice policy in the UNFCCC process. Mosello (2013) and Thew, Middlemiss, and Paavola (2020) identified how youth activists help operationalize the issues of intergenerational equity and climate justice as a key frame of the negotiations, while Nisbett and Spaiser (2023) identify how normative views of climate justice promoted by youth climate activists have penetrated the discourse around the international climate change negotiations.

Others have highlighted the injustices in how certain groups have been excluded from dominant modes of international

climate discourse. Roosvall and Tegelberg (2015) showed how Indigenous communities have been denied access to representation at the negotiations (procedural injustice), leading to a “misframing” of Indigenous perspectives in international climate policies. Skillington (2012) also built on this idea to demonstrate how the needs of vulnerable communities have not been a priority in official discourse of global climate negotiations.

Although most studies focused on the international context and studied negotiations and debates surrounding the UNFCCC, a few also examined climate justice communication in the context of broader international climate change policy debates. Centeno (2020), for example, analyzed reports from international agencies (including the IPCC Assessments) to show how knowledge production reflects issues of procedural and recognition injustice, particularly with regards to gender inclusion. Meanwhile, Mills-Novoa and Liverman (2019) evaluated the Nationally Determined Contributions submitted by each member state and identified deep debates regarding distributional climate justice inherent in these submissions, not just the official conference discourse.

#### 4.3.2 | National Debates and Local Engagement

A notable set of studies (16% of our corpus) examined the negotiation of power between official actors and advocates for climate justice within the nation-state. A focus here was on the contestation of dominant representations of and responses to the climate crisis that either elide or fearmonger about a “just” transition to renewable energy. For example, Boyce et al. (2020) examined alternative and hopeful visions for the future that advance climate justice, solidarity, and care as opposed to militarized borders and xenophobic representations of climate migrants in the US. By centering various ways that hegemonic discourse is contested, this study, and other similar ones (e.g., Jara and Bruns 2022; Scherhauer, Klittich, and Buzogany 2021), underscore opportunities for advancing more equitable and inclusive modes of climate politics. That such efforts at contestation may have a lasting effect is demonstrated by Brown and Spiegel (2019) and Petrovi, Petri, and Biedenkopf (2022), who investigated climate justice discourse in parliamentary speeches commenting on global climate policies. Notably, scholars tend to find that climate justice frames are used more frequently in these speeches over time.

Another set of studies examined different avenues for achieving climate justice within regional and local contexts. These studies explored how a diversity of communities can be—and already are—more actively engaged in climate mitigation and adaptation planning at the local scale (e.g., Araos 2023; Cole et al. 2023; Lieberknecht 2022). For example, Lieberknecht (2022) examined how community engagement in Texas can lead to better and more popular state-wide climate policies. Likewise, Araos (2023) emphasized the central importance of public participation in climate adaptation and sustainable infrastructure planning in New York City for long-term resilience.

Overall, this cluster of studies signaled how both climate communication and policymaking processes can be more inclusive and equitable at the international, national, and sub-national

levels through contestations of both hegemonic discourse and exclusionary decision-making procedures.

#### 4.4 | Art and Cultural Production

Articles focusing on art and cultural (15% of our corpus) production shares a common thread of promoting climate justice while criticizing an ethnocentric and Western view of the former and highlighting the importance of collaboration, diverse perspectives, and engaging various audiences. For instance, McGreavy and Lindenfeld (2014), Krauß (2014), and Gaard (2014) critique power imbalances and the Western focus in films and highlight the need for diverse perspectives for a productive engagement with climate justice. Equally, the apocalyptic focus of much cultural production receives a justice-centered critique. For example, Doyle (2022) criticized apocalyptic imagery in climate-related films when analyzing “Don’t Look Up” and called for more diverse perspectives in popular culture.

Many of the articles on art and cultural production encourage the use of various perspectives and interactive engagement in public debates on climate and justice (e.g., Avril et al. 2022). Investigating historical and material changes linked to globalization, Milanez, Menton, and Souza (2022) explored the anti-colonial nature of Brazilian artists and their ontological connection to Earth, addressing epistemological challenges in decoloniality. Similarly, a report from the exhibition “Art and Environmental Struggle” showcased works from Indigenous and rural communities that employ a transdisciplinary methodology of hope, engaging diverse audiences to emphasize climate justice through guided interactions with artworks (Avril et al. 2022). This aligns with Horton (2017), who argued for acknowledging how Indigenous art has challenged human-earth relations and corporate resource extraction and instead focuses on global collectivity and connectivity.

Promoting an additional alternative framing, focusing on children and their rights, can emphasize intergenerational justice, employing qualitative research and prioritizing the voices of future generations (Cherry 2021; McGillivray 2017). In their study of a youth filmmaking program, Tayne et al. (2021) shed light on hope, agency, and justice in framing socio-environmental challenges, and Benevento (2023) underscored the importance of calls to action, teamwork, and a focus on empathy, community involvement, active citizenship found in children’s art for climate change education. Plummer et al. (2022) concluded that co-creative methods can mobilize youth to engage in climate change, specifically through evaluating cultural and food heritage and framing climate change’s root causes within systems like capitalism and colonialism.

Turning to storytelling and the literary arts, King (2021) analyzed “climate fiction” novels (linking climate and crime) and used ecocritical approaches to highlight how it contributes to global socio-environmental justice. Xie (2023) shed light on the need to raise awareness and stimulate personalized debates in research on contemporary climate change poetry, integrating trans-disciplinary methods. Hahn (2023) examines artists’ perspectives on climate change, revealing their potential to raise

awareness for a more just, equitable, and sustainable world and facilitate interdisciplinary dialogue.

#### 4.5 | Climate Obstruction and Delay

A small but notable set of studies examined how the fossil fuel industry and allies attempt to frame the climate crisis and how these frames may impede a just transition to green energy (e.g., Curran 2021; Janzwood and Millar 2022; Osekita 2020). For example, Curran (2021) examined how the coal industry and conservative government officials use national tropes, icons, narratives, and allusions to frame coal as the nation's lifeblood, casting the transition to green energy as threatening the nation's stability. This study and others (e.g., Janzwood and Millar 2022) identify various ways the fossil fuel industry, allies, and lobbyists frame the transition to green energy as a threat to prosperity, progress, and security.

While also studying public opposition to renewable energy development climate policies, the conclusions of several articles on local and grassroots protests are markedly different. Situating activism within “new waves” of socio-environmental grassroots protests, Arifi and Winkel (2021) demonstrate that opposition to windfarms both challenges and reinforces notions of energy justice. Similarly, other work questions superficial understandings of anti-environmental protests within France's Yellow Vest Movement (Driscoll 2023; Levain et al. 2022; Martin and Mine 2021) and shows that it is partly motivated by perceptions of injustice. While such protest and activism ostensibly oppose the transition to green energy, these studies demonstrate how such opposition is less fundamental, sometimes arguing for juster approaches to the transition rather than its abandonment.

#### 4.6 | Communication Effects on Attitudes and Behavior

A small cluster of articles broadly covered public opinions, attitudes, and how communication affects cognition. These articles studied how climate communication, including justice cues and frames, affects different populations, including US Christians (Wardekker, Petersen, and van der Sluijs 2009), vulnerable communities in Maryland, US (Akerlof et al. 2020), and right-of-center UK citizens (Whitmarsh and Corner 2017). While Whitmarsh and Corner (2017) found that a climate justice narrative polarized participants across the political spectrum in the United Kingdom, other research finds that an emphasis of justice can engage various populations. Jeon, Gurney, and Bell (2023) revealed how shifts in ideas or concerns about justice facilitate the transition from climate change non-believer to believer. Similarly, Clayton, Koehn, and Grover (2013) analyzed how environmental crises are understood and characterized, finding that “belief in a just world” increases individuals' responsibilities for action. Studying US religious discourses, Wardekker, Petersen, and van der Sluijs (2009) found that moral considerations are prevalent throughout the climate change debate and can be used to engage religious citizens.

## 5 | Conclusion

This scoping review provides an overview of the dynamic and highly diverse body of literature published in English-language peer-reviewed journals addressing the intersection of public communication, climate change, and justice. First, our analysis offers an overview summarizing how the literature has approached this complex and multi-dimensional topic, and second, a narrative summary of prominent thematic areas of research within this body of scholarly literature. While the field is arguably too young to offer definitive synthesizing conclusions, we want to note a few observations about the state of the field to inform potential future directions for researchers seeking to contribute to this vibrant area of research.

Before offering our concluding observations, however, we wish to remind the reader of a methodological limitation in our study design. To limit the volume of this scoping review to a manageable size, we decided to focus on peer-reviewed, English-language journal publications. Consequently, we excluded a vast array of literature, academic and otherwise, that makes a substantial and meaningful contribution to the field of public communication of climate and justice. Notably, we exclude non-academic publishing and academic books and publications in non-journal outlets (e.g., Roosvall and Tegelberg 2018; Callison 2014). While this is a limitation to our study, we find it worthwhile to highlight the dynamics in peer-reviewed journal literature, as these are arguably influential in shaping academic discourse within the field and can serve as a starting point to inform future research.

First, we observed that the majority of publications offer case studies of various activities situated within single countries. In contrast, there is a lack of comparative work (with some notable exceptions) that would allow for better contextualisation and integration of findings, which we see as an important next step. On a related note, most of the research is qualitative, with very little work conducted to quantify, generalize, develop integrative theoretical models, or test the impacts of public communication about climate and justice. We believe that some strands within the field would be ready to further develop in these directions.

Second, we note a strong bias toward high-income countries—both in terms of the leading authors' institutional affiliations and the country contexts studied. While the methodological limitations above apply, we believe that such perspectives should be brought to the fore by encouraging more collaborative and comparative work and by directing resources and attention toward areas currently understudied.

Third, we had an explicit interest in work that links a focus on climate and justice with a concern for “climate obstruction”—the activities of those opposed to more just approaches to shaping a future within the planet's climatic boundaries. Little work has investigated this connection between justice and climate obstruction explicitly, reflecting that the latter is also an emerging area of research. While the issue is implicitly raised by activists and protesters in both national and international contexts, researchers could pay more focused attention to it and develop studies that elucidate and expand the conceptual

links between striving for climate justice and overcoming climate obstruction.

Finally, we find that studies of activists and protesters constitute the majority of research reviewed here, an indication that activists are at the forefront of placing justice-oriented perspectives on climate change on the agenda. In contrast, questions about justice-related aspects seem less common in public communication by official actors, and media reporting is often criticized by scholars for its lack of attention to the issue.

The field of public communication of climate justice is a young and burgeoning one, bridging bodies of literature and approaches from numerous disciplines and geographies. This richness offers immense potential in how researchers and practitioners conceive of, study, and communicate about justice dimensions of climate change. Our goal with this review was to understand the nature of existing studies in this field and to seek to identify gaps and paths forward to further enrich our understanding of the study of public communication of climate justice. As we have argued in the introduction to this piece, questions of justice are inherent in most aspects of climate change and individuals' responses to it, and we hope that the critical attention by scholars from various disciplines can do its part in shaping a more just transition to respect the planet's environmental boundaries.

#### Author Contributions

**Robin S. Tschötschel:** conceptualization (equal), data curation (lead), formal analysis (lead), investigation (equal), methodology (lead), project administration (lead), visualization (lead), writing – original draft (equal), writing – review and editing (equal). **Emily Diamond:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal). **Shannon E. Howley:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal). **Brenda McNally:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal). **Hanna E. Morris:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal). **Kelly E. Perry:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal). **Marthe Elden Wilhelmsen:** conceptualization (equal), data curation (supporting), investigation (equal), methodology (supporting), writing – original draft (equal), writing – review and editing (equal).

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#### Conflicts of Interest

The authors declare no conflicts of interest.

#### Data Availability Statement

The data that support the findings of this study are openly available in an Open Science Foundation Repository at <http://doi.org/10.17605/osf.io/p8v3a>, reference number p8v3a.

#### Related WIREs Articles

[Reflections on climate change communication research and practice in the second decade of the 21st century: what more is there to say?](#)

[Artful climate change communication: overcoming abstractions, insensibilities, and distances](#)

[Climate journalism in a changing media ecosystem: Assessing the production of climate change-related news around the world](#)

[Toward transformative climate justice: An emerging research agenda](#)

[Equitable, effective, and feasible approaches for a prospective fossil fuel transition](#)

#### Endnotes

<sup>1</sup> And in some formulations, non-humans.

<sup>2</sup> While the terms “Global North” and “Global South” are commonly used in the literature on climate change and climate politics, the authors recognize that these terms do not address nuances within colonialism and neocolonialism they often try to denote. While the terms “high-income countries” and “low-income countries” also fail to address these complexities, they seem more adequate to the argument we are advancing.

<sup>3</sup> Available under: <https://osf.io/p8v3a/>.

<sup>4</sup> A more detailed description of our methodology can be found in the protocol in Appendix I and the OSF repository for this project (<https://osf.io/p8v3a/>).

<sup>5</sup> Retrieved from institutional and authors' personal websites. 34% use “he/him”, 1 “he/they”, 1 “she/they”, 1 article has an organization as author, and 4 could not be found out.

<sup>6</sup> Forty pieces were coded without a specific context. Eleven focused on the UNFCCC or IPCC, 4 on “Oceania” or “Pacific Islands”, 3 on the European Union, 1 on the African Union, and 1 on a comparison between “Global North” and “Global South” countries.

<sup>7</sup> Some studies (14%) offer no clear indication of what scope they apply in their conceptualization of justice.

<sup>8</sup> Twelve percentage of studies do not give a clear indication of what dimension of justice they focus on.

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### Supporting Information

Additional supporting information can be found online in the Supporting Information section.