

Research Areas for Climate Litigation

2024 Report

HIGHLIGHTS

Climate litigation continues to grow and evolve as climate action lags and as impacts become increasingly severe. Although climate-focused cases employ a variety of legal strategies, they all need evidence to support their arguments, which requires the engagement of scientists capable of conducting and interpreting rigorous litigation-relevant research. To advance that work, we interviewed 19 legal practitioners and scholars and identified eight research needs for climate litigation. Of these, we highlight three as research priorities: attribution science, climate change and health, and economic modeling, all critical for advancing climate litigation and reflective of the field's evolution and progress. We designate the remaining five as strategic research areas: legal and financial accountability, disinformation and greenwashing, policy and governance, environmental and social impacts, and emissions accounting and reductions. Research to inform losses and damages emerged as a cross-cutting theme, integrating these priorities and strategic areas to address comprehensive litigation needs. This work underscores the important role scientists play in climate litigation and provides a research agenda for those looking to engage.

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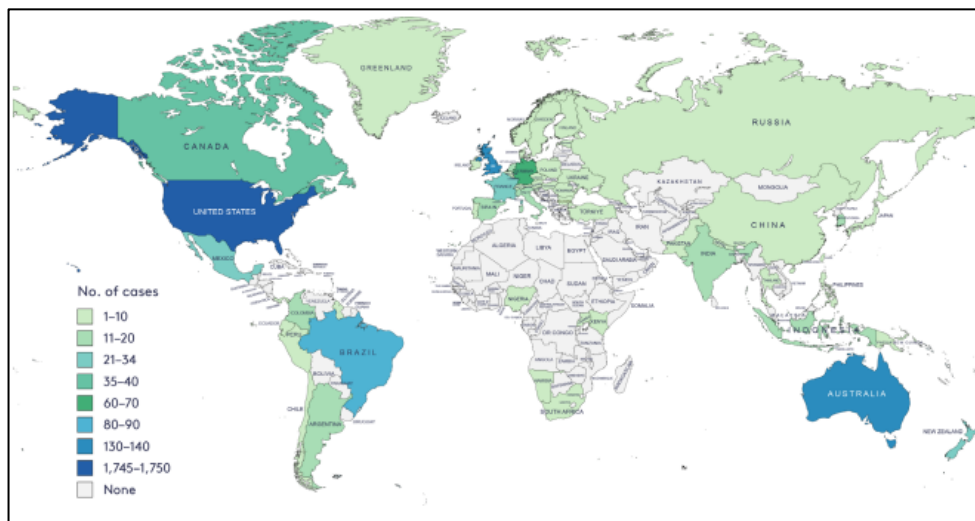
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Introduction

Climate litigation has evolved and expanded significantly over the past decade. The increasing severity and scope of climate impacts and the inadequacy of public and private sector responses have led to a surge in lawsuits seeking to hold governments and corporations accountable for their contributions to climate change. More than 1,800 cases have been filed worldwide since 2015 (Figure 1), with at least 230 cases filed in 2023 alone (Setzer and Higham 2024). Because climate litigation encompasses diverse legal areas, such as environmental law, human rights, and consumer protection (Setzer and Higham 2024), the cases rely on robust research from a range of disciplines, including climate science, history, and economics (Stuart-Smith et al. 2021). This point underscores the power of rigorous interdisciplinary research in producing the evidence needed to support legal arguments.

Still, reports from the Intergovernmental Panel on Climate Change (IPCC) provide an important starting point for many legal teams, as the publications represent the global consensus on all types of research around climate change, from physical science and impacts to adaptation and mitigation (Wentz et al. 2023). However, IPCC reports often lack the detail and geographic specificity required to meet evidentiary standards for many types of climate cases, which drives the need for scientists to engage and produce research that can support litigation. In addition, cases focused on loss and damage—a term that refers to the negative impacts of climate change that are not being avoided or cannot be avoided through mitigation and adaptation—are expected to increase, which will require further research to support these claims (Setzer and Higham 2024). Given the rapid pace of case development and the range of

Figure 1. Number of Climate Cases Filed Globally as of December 31, 2023



Blue tones indicate countries where the most cases have been filed, highlighting the United States, United Kingdom, and Australia as hubs of litigation activity, while gray tones indicate no cases have been filed, highlighting the limited use of litigation to date in countries in Africa.

Source: Setzer and Higham 2024, reproduced with permission from Grantham Institute.

disciplines from which cases draw evidence (Stuart-Smith et al. 2021), developing a litigation-relevant research agenda is key to enabling scientists to meet the needs of the legal community.

Here, we aim to develop that research agenda by identifying strategic research areas and tracking trends around evidence used in climate litigation. We conducted interviews with legal scholars and practitioners following an adapted, semistructured, open-ended script (Merner, Franta, and Frumhoff 2022) and used thematic analysis to identify, organize, and interpret patterns in our data. Data were collected between March and July 2024 through interviews with 19 participants who were selected based on their expertise in climate litigation and their geographical location (Table 1). This sample size is not large enough, however, to analyze comprehensive global trends, as interviewees represent only a small fraction of the global legal landscape. The semistructured interview format allowed for in-depth exploration of the participants' views while maintaining a consistent structure across the interviews.

Table 1. Location of Interviewees

Region	Interviewees
Africa	2
Asia	2
Europe	5
Latin America	6
North America	3
Oceania	1

In analyzing the interviews, we identified eight key research areas that present unique opportunities for scientists to engage with legal teams and contribute to the evolving landscape of climate litigation. Due to their critical importance in the current climate litigation landscape, three emerged as priority research areas: attribution science, climate change and human health, and economic modeling. We designated the remaining five as strategic research areas that address broader, interdisciplinary issues critical to climate litigation. These areas are legal duties and financial flows, disinformation and greenwashing, fair share analysis and compliance challenges, environmental and social impacts, and emissions accounting and reductions. Research to inform losses and damages, referring to the adverse impacts of climate change that are beyond the limits of adaptation, emerged as a cross-cutting theme. This current study contributes to the growing body of climate litigation research by identifying current trends, highlighting research priorities, and providing a basis for future studies. Our findings aim to guide researchers, inform practitioners, and foster communication between the legal and scientific communities to support future research and practice in this evolving field.

Research Needs for Climate Litigation

From the responses of the interviewees, we identified eight key research areas and a cross-cutting theme. Based on our understanding of the broader climate litigation field and the results of our interviews, we identified three priority research areas that directly support the most critical needs of climate litigation and five strategic research areas for future work. The scientific community can better support climate litigation efforts by addressing these research areas and providing robust, interdisciplinary evidence that meets the evolving needs of the legal community. Research to address and inform all aspects of climate losses and damages also emerged as a critical theme for future work, having applications across the priority and strategic research areas. Current and future research in the key areas, specifically that considers and addresses losses and damages, will enhance climate litigation effectiveness and contribute to wider efforts to mitigate and adapt to climate change.

Priority Research Areas

1. Attribution Science for Causal Links

Attribution science plays a critical role in establishing the causal links among climate change, its impacts, and specific emissions, which is fundamental in climate litigation. Interviewees highlighted a need for more of this type of research and for its results to be effectively communicated to legal professionals and policymakers to advance climate litigation and meet the evidentiary standards of the legal community (e.g., the but-for standard). This dissemination of knowledge includes explaining both the strengths and limitations of this research, advising on its applicability to legal contexts, and providing resources and training for legal teams to utilize attribution science effectively in litigation, including their recognition of Global North bias in existing literature. In that context, interviewees identified the need for attribution science focused on diverse geographies as well as the need for new methods to suit regions that may lack historical climate data, particularly in the Global South.

Although attribution science has made significant strides, interviewees also identified a need for attribution science focused on more types of climate events and at different scales, from local to global. The complexity of the physical processes involved and granularity of available data determine the feasibility of an attribution study and the ability to model the many associated factors. For example, attribution studies are more advanced and straightforward in areas in which the physical processes are relatively direct, such as heat waves and precipitation. In cases involving more complex processes, however, such as tropical cyclones or impacts on human systems, attribution becomes more challenging. Relatedly, interviewees noted the need for additional source attribution research, which quantifies the contributions of specific emissions sources (e.g., corporate actors, nations, states, and specific sectors) to climate change and its impacts, and also for more impact attribution research, which determines how specific people or places have been harmed by climate-related events. The field has made important advances in impact attribution, but quantifying harm remains challenging. Still, doing so is crucial for litigation that requires proof of harm, especially in differentiating between physical hazards and their social impacts.

Further, interviewees called for additional research about the risks and barriers that an overreliance on attribution science could present to achieving justice for underserved communities and countries, particularly in the Global South. Specifically, those that are most

affected by climate change may be unable to seek justice through the court system because they lack the resources required to scope, conduct, and publish attribution studies. Addressing this issue, interviewees raised the need for research to examine the generalizability of attribution science to ensure that these findings are accessible to historically underserved communities and countries and to explore how other types of evidence can instead meet evidentiary standards.

2. Climate Change and Human Health

The connection between climate change and human health is increasingly recognized in legal contexts, as evidenced by cases in Switzerland and Montana (Setzer and Higham 2024). Understanding the health impacts of climate change is crucial for creating compelling legal arguments and achieving successful litigation outcomes. Interviewees identified the need for more research centering groups that are most vulnerable to the health impacts of climate change, such as people with disabilities, people experiencing poverty, older adults, infants, and pregnant people. This includes studying the effects of poor air quality, extreme heat, and water scarcity, as well as multiple and cumulative climate-related stressors. Additionally, interviewees highlighted the need for attribution studies to establish clear links between climate change and health outcomes. This includes studies on how climate change exacerbates conditions like asthma, cardiovascular diseases, and heat-related illnesses. Interviewees emphasized that all such research should include diverse geographic regions and temporal scales, ensuring a comprehensive understanding of health impacts globally. This would require collaborating across disciplines to gather and analyze relevant health data.

3. Economic Research on Climate Costs

Understanding the economic costs of climate change and climate inaction at various scales is vital for many legal cases. Courts require solid economic research to capture the financial implications of climate impacts and to determine appropriate remedies. Interviewees identified the need to conduct assessments detailing the costs associated with climate change, including direct damages, adaptation expenses, and lost economic opportunities. Each of these areas of study requires distinct methods. These assessments should cover a range of sectors and scales, from local communities to global economies. Further, interviewees stressed the need for economic modeling to predict future climate costs under different scenarios. These models should account for variables such as mitigation efforts, adaptation strategies, and economic resilience. Interviewees noted the need for economic analyses tailored for specific legal cases (although challenging to provide) so that findings are relevant and applicable to the contexts of individual lawsuits. This includes quantifying the economic benefits of proactive climate action and the costs of inaction.

By addressing these priority research areas, scientists can better inform climate litigation efforts, providing robust, interdisciplinary evidence that meets the evolving needs of the legal community. This research will not only enhance the effectiveness of climate litigation but also contribute to broader efforts to mitigate and adapt to climate change.

Table 2. Priority and Strategic Research Areas for Climate Litigation

Research Priorities
Attribution Science
Climate Change & Human Health
Economic Research on Climate Costs
Strategic Areas for Future Research
Legal Duties & Financial Flows
Disinformation & Greenwashing
Fair Share Analysis & Compliance Challenges
Environmental & Social Impacts
Emissions Accounting & Reductions

Strategic Research Areas

Legal Duties and Financial Flows

Legal and financial accountability emerged as areas in need of further research, including a pressing need for granular emissions accounting and mitigation pathways to hold corporations and states accountable, as noted in the section Emissions Reductions and Accounting. This is particularly true for smaller corporations and highly polluting industries, such as fashion and cement, that are understudied relative to the Carbon Majors, a group of 90 of the world’s largest fossil fuel and cement-producing entities (Heede 2014). Interviewees also identified a need for research that characterizes and quantifies the role of the financial industry in supporting fossil fuel projects and thus contributing to emissions production (i.e., advised or financed emissions).

Disinformation and Greenwashing

Interviewees pointed out the need for research to identify and counteract dis- and misinformation and deceptive practices employed by opposing experts. This includes detailed analysis aimed at exposing and correcting misleading calculations and information disseminated by industries, their surrogates, and other vested interests. In addition to countering greenwashing, interviewees wanted additional research about whether and how greenwashing affects consumer behavior. Further, the need for research on counterfactual temperature trajectories—hypothetical scenarios that estimate what global temperatures would have been without specific emissions or corporate actions—was raised multiple times, illustrating the impact of corporate deception campaigns.

Fair Share Analysis and Compliance Challenges

Interviewees emphasized the need for research on fair share analyses for both corporations and nation-states, calling for additional research to understand compliance with and the ambition of Nationally Determined Contributions (NDCs). This research is crucial, as litigation increasingly targets inadequate mitigation goals and compliance gaps at the nation-state level. Furthermore, although the United Nations Framework Convention on Climate Change framework offers limited guidance for countries, there are no standardized emissions metrics or pathways for corporations, complicating efforts to hold them accountable for their climate impacts. For this reason, interviewees highlighted the urgent need for standardized emissions tracking and fair share analyses for corporations. These analyses should consider historical emissions and address the complexities of emissions arising from intricate business relationships, such as joint ventures. Studies could also investigate the direct and indirect lobbying activities of corporations in the context of climate policies and legislation, the influence of industry on IPCC Working Group III (the group tasked with synthesizing research focused on the mitigation of climate change), and the exclusion of financial sectors from critical processes. More, interviewees highlighted a need for clarity on the risks and implications of overshoot scenarios in which global average temperatures temporarily exceed thresholds like 1.5°C and 2°C and are then reduced using negative emissions technologies, such as carbon dioxide removal.

Environmental and Social Impacts

Interviewees stressed the importance of performing comprehensive environmental impact assessments that encompass a broad array of impacts, including those on biodiversity and climate. They identified such assessments as critical for infrastructure, energy, and other extractive projects, like mining, particularly if research can address the cumulative impacts to both communities and ecosystems over the lifetime of an individual project. Several interviewees mentioned the value of additional research on the climate consequences of land use change, the global reverberation of deforestation and loss of ecosystem services, and the broad ecosystem impacts of increasingly extreme weather events. Interviewees also highlighted the need for research on the effects of climate change on human rights and on the climate impacts for smaller remote and isolated communities, where long-term data collection may not have occurred.

Emissions Accounting and Reductions

Improving the granularity and communication of mitigation pathways for governments and corporations emerged as another key area for future research. This includes improved methodologies for documenting and reducing Scope 3 emissions (i.e., indirect emissions, including emissions generated through the intended use of a company's products), research on methane budgets, and studies supporting clear carbon budget targets. Further, interviewees identified a need for credible pathways for emissions reductions from corporations to serve as a counterfactual to misleading or incomplete transition plans. Interviewees also had questions about the actual impact of renewable energy credits and their effectiveness in reducing greenhouse gas emissions. Another key topic pinpointed for further research was carbon dioxide removal and its role in meeting temperature targets.

Additional Research Needs

Some research areas identified by interviewees fell outside these eight key areas, but are critical for advancing climate litigation. These include determining the time line of corporate and state knowledge about climate change, integrating Indigenous knowledge into formal structures that describe climate impacts and put forward opportunities for mitigation and adaptation, and reaching a better understanding of the evidentiary standards required for climate litigation. Also, interviewees suggested that research around the framing of climate targets—using temperature, atmospheric concentration of carbon dioxide, or other alternatives—would be valuable for informing litigation. Our study provides important global perspectives from a small subset of legal scholars. As climate litigation continues to grow, so will the need for comprehensive studies with larger sample sizes that can capture a wider array of perspectives.

Cross-Cutting Theme: Losses and Damages

Research to better understand climate-driven losses and damages emerged as a cross-cutting priority, emphasizing this theme as a burgeoning area for future climate-related cases. This could include comprehensive research to calculate the cost of these losses and damages, addressing both economic and noneconomic losses, such as those associated with intangible cultural heritage, social structures, and ways of life. Additionally, research and data detailing the costs and efficacy of adaptation measures at different scales would provide valuable information as communities seek reparations for climate-related harms. Research could also focus on the monetary impact of damages and the benefits of taking proactive climate action. In general, designing litigation-relevant research through a lens of addressing losses and damages would increase the usability and longevity of the research. This theme underscores the value of integrating diverse research efforts to comprehensively address the multifaceted impacts of climate change.

Discussion

Our findings highlight the pressing need for additional research to support climate litigation as well as the challenges and opportunities for scientists who want to contribute. In the two years since the first study of this kind was published (Merner, Franta, and Frumhoff 2022), the field has evolved significantly, with legal practitioners gaining a more detailed and nuanced understanding of various aspects of climate change and its impacts. We see this reflected in the more granular research areas that practitioners identified through our interviews as well as through the types of cases that are currently under way.

The role of and need for attribution science was the primary research priority identified across interviews. The emphasis on these studies reflects a deeper recognition of the need for robust scientific evidence to support legal claims, particularly to understand losses and damages, including noneconomic losses of cultural and social structures (Sesana et al. 2021). Such efforts will require comprehensive data on both economic and noneconomic losses, and the absence of reliable data may create barriers to accessing justice through the courts for communities particularly vulnerable to climate impacts. Exploring standards of evidence across jurisdictions will be a critical area of analysis to ensure that a lack of attribution science does not impede the pursuit of accountability for those most affected by climate change, particularly since drawing causal connections around impacts is difficult in areas of the world

with fewer data. Specifically, pursuing justice and reparative compensation should not require findings from a dedicated attribution study.

Outside of specific areas of research, interviewees identified challenges in communication that create barriers for legal teams pursuing climate litigation and present opportunities for scientists to engage in the legal space. Participants highlighted that information regarding the implications, nuance, and complexity of existing research is not reaching the legal teams that need it. In some situations, this issue appears to result from a lack of access to experts who can provide this perspective. In others, available scientific experts seem ill-equipped to communicate information in a way that resonates with the needs and priorities of a legal audience. Training programs that bridge legal and scientific fields and placement of scientists within legal teams would begin to address this issue, ensuring that scientific evidence is effectively translated into legal and policy frameworks. Beyond informing legal teams, interviewees also raised the importance of judicial education to enable courts and judiciaries to make informed decisions and rulings around climate change. For translation, interviewees highlighted that while the IPCC reports' *Summary for Policymakers* are available in six languages (Arabic, Chinese, English, French, Russian, and Spanish), the full reports that include details of specific geographies are available only in English, highlighting a critical gap in the accessibility of key scientific information to the vast majority of the world.

This study also yielded important insights about how people working in the legal and scientific spheres can better collaborate to advance climate action. For one, the difference in timelines for scientific research and legal cases was raised multiple times. Completing and publishing a novel attribution study, for instance, can take months to years, a time frame that can exceed that of an individual case. This discrepancy highlights the benefits of having scientists engage with legal teams from the outset to identify the type of science required to support a given argument and to recognize the vulnerabilities of using some kinds of research in a legal setting. In addition, interviewees noted the value of rapid and responsive research, which creates opportunities to understand dis- and misinformation, particularly with regard to misleading information arising from campaigns supported by corporations and their surrogates. Although this point was not raised by interviewees, we offer that the legal and scientific communities can work together to protect experts and safeguard their work, especially in light of the harassment, subpoenas, and intimidation lawsuits that experts have faced. By working together, scientists and legal experts can ensure the appropriate interpretation of scientific evidence for cases, alignment of timelines, and protection of experts.

Conclusion

Climate litigation continues to accelerate globally, increasing the importance of robust and rigorous scientific research to support cases. This study explores the priority and strategic areas for future research, highlighting how scientists can conduct litigation-relevant research and engage in legal spaces. Priority areas include attribution science, research focused on connections between climate change and human health, and economic research that quantifies the costs of climate impacts and mitigation strategies. We also identified five strategic research areas—legal and financial accountability, disinformation and greenwashing, policy and governance, environmental and social impacts, and emissions reductions and carbon management—that present opportunities for interested scientists to develop litigation-relevant research questions. Additionally, research to inform losses and damages emerged as a

critical cross-cutting theme essential for addressing the multifaceted impacts of climate change that are not or cannot be avoided through mitigation or adaptation. As the impacts of climate change become increasingly severe and determination to maintain the status quo intensifies, the importance of research to inform litigation will only grow.

Methods

To identify emerging trends and strategic research areas for climate litigation for this study, we conducted 19 semistructured interviews between March and July 2024, followed by qualitative analysis. We recruited legal scholars and practitioners through a purposive sampling method (Schutt 2018), identifying potential participants through professional networks, academic publications, and recommendations from experts in the field. All interviewees hold law degrees and have been working on climate-related issues for a minimum of two years. To assess the trustworthiness of an interviewee, we evaluated their professional background, academic qualifications, and prior contributions to the field of climate litigation, ensuring that their insights were informed by substantial expertise and credibility. This approach aimed to gather insights from individuals who are actively engaged in or have substantial knowledge of climate litigation while also representing a range of geographies (Table 1). Although this method ensures the inclusion of relevant and knowledgeable participants, it may introduce selection bias.

Using a semistructured format allowed us to explore the complexity of each participant's perspective while maintaining a consistent structure across interviews. Participants were provided with a detailed consent form outlining the purpose of the study, the nature of their participation, and how their data would be used. We obtained informed consent from all interviewees prior to participation and maintained the stated confidentiality and anonymity throughout. We used a refined open-ended script developed from the previous year's feedback and evolving research priorities (Merner, Franta, and Frumhoff 2022). The script included questions about participants' perspectives on the most pressing research gaps, effective legal strategies, and types of evidence that have been most beneficial in climate litigation (Appendix 1). Interviews were conducted remotely, recorded with participants' consent, and transcribed for analysis.

The qualitative data were analyzed using thematic analysis, following Clarke and Braun's (2013) approach. The analysis involved multiple stages: familiarization with the data through repeated readings of transcripts, generation of initial codes from significant statements, and organization of codes into broader themes. We applied an emergent coding approach, allowing themes and constructs to organically arise from the data. This inductive process enabled us to capture a wide range of insights and perspectives without being constrained by a predetermined framework. Our method emphasizes flexibility and responsiveness to the data, ensuring that the analysis remains grounded in the actual content of the interviews and discussions. Two researchers conducted the theme development, employing discussion to reach consensus to ensure robustness and resolve discrepancies. Themes were reviewed and refined through iterative discussions among the research team to ensure accuracy and relevance. Final themes were defined, named, and linked to the research questions, with the findings validated by external reviewers. Notes were maintained throughout to document decisions and ensure transparency (Naeem et al 2023). This methodology, while comprehensive, has certain limitations. The selection of participants, although resulting in a diverse group, may still reflect biases that result from purposive sampling methods.

Additionally, the shift from line-by-line coding to thematic analysis, while streamlining the process, may have resulted in less granular data categorization.

Primary themes from interviewees were organized by questions and collated into a spreadsheet following each interview. We then analyzed these themes to create a litigation-relevant research agenda and compile insights for scientists and researchers seeking to become involved in litigation.

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References

Clarke, Victoria, and Virginia Braun. 2014. "Thematic Analysis." In *Encyclopedia of Critical Psychology*, edited by Thomas Teo, 1947–52. New York: Springer.

https://doi.org/10.1007/978-1-4614-5583-7_311.

Heede, Richard. 2014. "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010." *Climatic Change* 122: 229–41.

<https://doi.org/10.1007/s10584-013-0986-y>.

Merner, L. Delta, Benjamin Franta, and Peter C. Frumhoff. 2022. *Identifying Gaps in Climate-Litigation-Relevant Research: An Assessment from Interviews with Legal Scholars and Practitioners*. Providence, RI: Climate Social Science Network. <https://cssn.org/cssn-research-report-2022-identifying-gaps-in-climate-litigation-relevant-research-an-assessment-from-interviews-with-legal-scholars-and-practitioners/>.

Naeem, Muhammad, Wilson Ozuem, Kerry Howell, and Silvia Ranfagni. 2023. "A Step-by-Step Process of Thematic Analysis to Develop a Conceptual Model in Qualitative Research."

International Journal of Qualitative Methods 22 (November):16094069231205789.

<https://doi.org/10.1177/16094069231205789>.

Schutt, Russell K. 2018. *Investigating the Social World: The Process and Practice of Research*. 9th ed. Thousand Oaks, CA: SAGE.

Sesana, Elena, Alexandre S. Gagnon, Chiara Ciantelli, JoAnn Cassar, and John J. Hughes. 2021. "Climate Change Impacts on Cultural Heritage: A Literature Review." *WIREs Climate Change* 12 (4): e710. <https://doi.org/10.1002/wcc.710>.

Setzer, Joana, and Catherine Higham. 2024. *Global Trends in Climate Change Litigation: 2024 Snapshot*. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.
<https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/06/Global-trends-in-climate-change-litigation-2024-snapshot.pdf>.

Stuart-Smith, Rupert F., Friederike E. L. Otto, Aisha I. Saad, Gaia Lisi, Petra Minnerop, Kristian Cedervall Laut, Kristin van Zwieten, and Thom Wetzer. 2021. "Filling the Evidentiary Gap in Climate Litigation." *Nature Climate Change* 11 (8): 651–55.
<https://doi.org/10.1038/s41558-021-01086-7>.

Wentz, Jessica, Delta Merner, Benjamin Franta, Alessandra Lehmen, and Peter C. Frumhoff. 2023. "Research Priorities for Climate Litigation." *Earth's Future* 11 (1): e2022EF002928.
<https://doi.org/10.1029/2022EF002928>.

Appendix 1: Interview Script

1. Let's begin by getting to know you a bit better. Could you please give me an overview of your professional background, specifically your expertise in and any connections you have to climate litigation?
2. We want to understand how scientific evidence has or has not been used to inform climate litigation and which types of evidence are most valuable for different types of cases.
 - a. So, for those instances where scientific evidence was used in your work, what types of evidence or research areas have you found most beneficial in supporting your cases or legal efforts?
 - b. In situations where scientific evidence was not used, what barriers or considerations do you take into account when deciding to include or exclude scientific research into your legal strategies?
3. Could you identify any specific shortcomings or gaps in the available scientific evidence? What kind of scientific data or research do you think would add value to climate litigation efforts?
4. What additional scientific research do you think is needed? Why do you think further research in these areas is crucial for advancing climate litigation?
5. In your view, which types of climate litigation hold the most promise or importance for addressing climate change and its impacts? Why do you think these areas are particularly impactful?
 - a. How does accountability, both for high-polluting countries, individuals and companies, factor into your thinking around addressing climate change and its impacts?
6. Are there any legal strategies that you are not able to pursue due to the lack of specific scientific evidence? What areas of study do you think require more in-depth investigation to support such strategies?
7. Could you discuss the strengths and challenges of relying on scientific evidence in climate litigation? How does this impact case outcomes and broader legal strategies?