

## EDITORIAL

# *PLOS Climate*: A new, inclusive home for open climate research

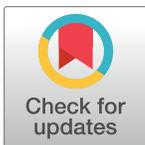
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In many ways, it is an extremely appropriate time to be launching *PLOS Climate* with the mission of making rigorous, peer-reviewed climate research available to all. We write this Editorial during a momentous few months for the planet, with the world still digesting the outcomes of the latest round of international climate negotiations. Post COP26 and the Glasgow Climate Pact, 1.5° C remains- for now- in sight. But 2022 and 2023, including the yearly UN roundtable and the 2023 Global Stocktake, will be critical in determining whether we really can shift onto such a trajectory. In terms of how scientific research feeds into these processes, it was an encouraging sign that COP26 showed strong recognition of the latest IPCC AR6 Working Group I report on the Physical Science Basis of Climate Change, itself a key waypoint in the synthesis of recent climate research [1]. COP26 also featured the first clear acknowledgement of the role of nature in responding to climate change, including how biodiversity and ecosystem services may support both adaptation and mitigation [2]. It seems increasingly clear that striving for *planetary* health is how we must frame our approach to tackling climate change [3].

The impacts of climate change on people, societies, and the natural world are real and intensifying [4]. Whilst the urgency for mitigation, adaptation and carefully prioritised research is increasingly recognised among societal stakeholders and decision-makers, there remain major challenges in the form of political and cultural inertia, limited opportunities for visibility and participation for some of the most impacted peoples, and unequal funding for climate research and action across global regions. The Covid-19 pandemic has thrown into even sharper relief inequities, both in terms of climate impacts and within the practice of climate research itself [5, 6]. At *PLOS Climate*, we are committed to highlighting these issues, sharing the perspectives of underrepresented groups, and identifying opportunities for collaborative solutions.

Climate research, which spans many disciplines and fields of study, provides a vital evidence base for informed decision-making at all levels of society. *PLOS Climate* considers climate-related research from every angle and every region of the world, including but not limited to earth, ocean and atmospheric science, paleoclimatology, climate-smart energy and engineering, adaptation, mitigation, climate economics, social and health impacts of climate change, policy and governance, ethics and philosophy, and climate-related behavior and psychology. As reflected in our publication criteria (<https://journals.plos.org/climate/s/criteria-for-publication>), our approach to the evaluation of submissions to *PLOS Climate* is centred on scientific rigor and reproducibility, rather than subjective assessments of ‘novelty’. Key to this is a robust, objective peer review process.

We see an important part of our role as providing a conduit for the dissemination of interdisciplinary work that crosses the boundaries of traditional disciplinary siloes. We particularly



## OPEN ACCESS

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encourage submissions of research in these exciting collaborative spaces of conceptual and methodological cross-fertilisation, and plan to offer authors opportunities to publish in interdisciplinary Collections—some of which we hope to co-organise with other PLOS journals. Another key editorial focus is on publishing solutions-oriented, policy- and decision-relevant research. In addition to encouraging submission of research articles in this space, we plan to commission Reviews and Opinions that provide synthesis and commentary in key areas, as well as pieces aimed at giving orientation and context around forthcoming IPCC reports and other milestones in the global climate discourse. We will further engage directly with decision-makers, not only in the policy arena, but also in the non-profit space and in industry, both as authors and as audiences who can put the research we publish to use.

Of course, *who* the publishing scientists are is itself significant. In April 2021, Reuters published the ‘Reuters Hot List of 1000 Top Climate Scientists’ [7]. As Schipper and colleagues have pointed out, while it is always welcome that the media highlight the critical importance of climate research, in this case the composition of the list sent an unwelcome underlying message [8]. There were only 122 women on the list, and only 111 at institutions located in the Global South. Clearly, we need to do better, in terms of research equity and visibility. *PLOS Climate* is committed to developing demographic and geographic diversity in our authorship and our editorial team. We have built an editorial board with diversity in mind, including geographical diversity; our 22 Section Editors are based in 16 countries on six continents, and our larger pool of over 100 Academic Editors are based in 35 countries on six continents. We will strive for even better representation as our editorial board, collaborators and contacts grow over time.

We are actively engaging with institutions in the Global South, including through organising online conversations about Open Science and about the accessibility of publishing in *PLOS Climate* via PLOS’s Global Equity Model (<https://plos.org/resources/global-equity-model/>). In addition, we are working closely with networks of Early Career Researchers (ECRs) and students, including running capacity-building programmes around publishing. Our recent series of peer-review workshops for ECRs in partnership with the Inter-American Institute for Global Change Research (IAI) was well-attended and -received, and we look forward to a range of similar engagements going forwards. We have also leveraged platforms such as the PLOS Latitude blog (<https://latitude.plos.org/>) to share perspectives on key issues, including Indigenous knowledges and equity in climate information and services. Another essential tool in our efforts to promote equity in research practices is the ‘parachute science’ policy recently adopted by all PLOS journals (<https://journals.plos.org/climate/s/best-practices-in-research-reporting#loc-inclusivity-in-global-research>). The policy is designed to assist editors and reviewers in assessing ethical standards of studies conducted by researchers in other countries or communities, particularly by identifying whether local partnerships have been established and provision made for equitable sharing of research benefits.

As we are a PLOS journal, advocacy for Open Science is of course a fundamental part of *PLOS Climate*’s mission. We aim to publish a wide range of research outputs: primary research articles including theoretical, laboratory, field-based, computational and modeling work, and qualitative and mixed-methods research; systematic reviews and meta-analyses; replication studies; submissions reporting null and negative results; and submissions describing methods, software, databases and tools. We are highly supportive of preprinting, and encourage authors to explore the advantages of preprints alongside peer-reviewed publication. Our policies on data sharing (<https://journals.plos.org/climate/s/data-availability>) and code sharing (<https://journals.plos.org/climate/s/materials-software-and-code-sharing#loc-sharing-code>) support the reuse of these materials for further analyses or reinterpretation, accelerating overall progress in climate research, as well as promoting reproducibility. Different research communities

have different technical and cultural needs around Open Science, and we are actively consulting with researchers to understand how *PLOS Climate* can best support the adoption of Open Science practices across the many disciplines and fields represented in our scope.

This is an exciting moment as we publish our first content, and we are looking forward to the road ahead. There will be challenges and changes along the way, but we will stick to our mission and will be ready to be held accountable as we earn researchers' trust as a venue for their work. As the journal grows and evolves, we hope it will stand out for its co-creative approaches and the diversity and dynamism of its community.

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