COSPAR Statement on International Climate Research

COSPAR
COMMITTEE ON
SPACE RESEARCH

7 November 2025

The Committee on Space Research (COSPAR) reaffirms the essential and vital role of space-based observations in advancing international climate research, in protecting the future ecosystems' services of our planet and ensuring climate resilience. Continuous, high-quality space data are indispensable for monitoring key components of the climate system, understanding Earth's complex systems and its cycles, improving climate models, detecting trends, and supporting the development of predictive models essential to inform policy and safeguard societies worldwide.

To sustain and strengthen global climate monitoring, COSPAR emphasizes the need to maintain, renew and expand the current constellation of Earth-observing missions, to ensure continuity, innovation, and increased space and time sampling at enhanced resolution, urgently needed to address emerging scientific questions from atmosphere to ocean to land to cryosphere, to support global adaptation and mitigation efforts.

Open and equitable access to space-based climate data must remain a fundamental principle and a global priority. Global collaboration in open, timely, and interoperable data production, both from space and in situ, and data sharing enables scientists, institutions and policymakers, worldwide to contribute to, and benefit from, model development, climate projection, and impact assessment, in other words: collective climate knowledge and applied wisdom. Such sustained observation and international cooperation enhances our collective capacity to deliver accurate and timely warnings in the face of climate-related hazards and impending disasters affecting humanity, including extreme storms and hurricanes, ocean surges and compound flooding, heatwaves and droughts. The ability to provide effective early-warning systems worldwide is a direct outcome of sustained observation and coordinated research. These capabilities are essential for protecting lives, ecosystems and infrastructure across all regions of the world.

Climate projections based on various scenarios are essential tools for guiding policy and informing decision-making at all levels. They empower governments to take evidence-based measures that reduce risks, prevent the worst outcomes, and codesign mitigation and adaptation strategies for the benefit of society and the environment.

The insights gained from satellite observations, in situ measurements and modeling must continue to inform evidence-based decision-making by governments, helping societies anticipate, adapt to, and mitigate the effects of climate change. In this context, COSPAR recognizes and commends the essential contributions of the World Climate Research Programme (WCRP) and the Intergovernmental Panel on Climate Change (IPCC) for their leadership in coordinating international research and translating scientific knowledge into actionable guidance. COSPAR stands ready to cooperate closely with these and other international partners to ensure that the flow of critical space data continues uninterrupted, contributing to deepen scientific understanding and strengthen the foundation for informed

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and evidence-based global action, enabling a safer and more sustainable future for all.

COSPAR is fully committed to fostering these efforts in partnership with space agencies, research institutions, funding agencies, international scientific bodies, and the global scientific community, for instance through COSPAR Scientific Assemblies, Symposia, Capacity Building events and scientific publications, with emphasis on the free exchange of data and results, information, and opinions.

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