

## **Open Letter: An S.O.S. From the Poles to World Leaders at COP29**

The undersigned scientific organizations call on world leaders and their representatives attending COP29 to commit to immediate and substantial de-carbonization and to collaborate in implementing the measures necessary to achieve this goal.

The climate is dangerously close to exceeding the 1.5°C global temperature increase above pre-industrial levels, a threshold that has already triggered alarming changes in the world's ice-covered regions<sup>1</sup>. We are witnessing unprecedented melting of ice sheets, glaciers, sea ice, and thawing of permafrost. This has set us on a trajectory toward accelerated sea-level rise, displacing hundreds of millions of people. These changes are not isolated; they cascade into widespread and severe impacts on climate stability, ecosystems, livelihoods, economies, and the safety of societies worldwide.

The undersigned organizations emphasize that exceeding the 1.5°C threshold risks triggering irreversible and uncontrollable shifts in the Earth's climate system, with catastrophic consequences for both current and future generations.

There is no more time to waste. We urge world leaders to fulfill the commitments made in the 2015 UN Paris Agreement and to ensure that the 1.5°C limit remains achievable. Immediate and decisive action is not just necessary—it is essential for the future of our planet and humanity.

### **References**

1. State of the Cryosphere report 2024:

[https://drive.google.com/file/d/1CaM\\_sTK-lrdzlcJxA2ZBxsqkLuu9mSF-/view](https://drive.google.com/file/d/1CaM_sTK-lrdzlcJxA2ZBxsqkLuu9mSF-/view)

### **The Undersigned Parties**

Biogeochemical Exchange Processes at Sea-Ice Interfaces (BEPsII)

Antarctic Sea Ice Processes and Climate (ASPeCt)

Cryosphere and Atmospheric Chemistry (CATCH)

Air Pollution in the Arctic: Climate, Environment and Societies (PACES)

Quantifying the Indirect Effect: from Sources to Climate Effects of Natural and Transported aerosol in the Arctic (QUIESCENT)

### **Endorsing Organizations**

Association of Polar Early Career Scientists (APECS)

AWIs4Future

Climate and Cryosphere (CLiC)

European Polar Board (EPB)

Future Earth

International Cryosphere Climate Initiative (ICCI)

International Glaciological Society (IGS) Council

International Ice Charting

Working Group (IICWG) Secretariat

Scientific Committee on Antarctic Research (SCAR)

SCAR - Instabilities & Thresholds in Antarctica (SCAR INSTANT)

SCAR - Integrated Science to Inform Antarctic and Southern Ocean Conservation (SCAR Ant-ICON)

SCAR - Near-term Variability and Prediction of the Antarctic Climate System (SCAR AntClimNow)

Surface Ocean - Lower Atmosphere Study (SOLAS)

Southern Ocean Observing System (SOOS)

World Climate Research Programme (WCRP)