

UNFCCC COP30, Earth Information Day 2025, Opening Segment

GCOS Speech, by Thelma Krug, 10/11/2025

For 33 years, GCOS has provided the foundation for global climate monitoring, setting the framework for the high-quality, reliable data that are essential to understand, predict, and act on climate change. We have established and maintained the observational requirements for Essential Climate Variables across all domains of the Earth system: atmosphere, ocean, and land, including hydrology and the cryosphere. GCOS identifies and reports gaps in systematic observations, proposes solutions to address them, and has defined the indicators used in the WMO State of Climate Reports.

GCOS actively cooperates with many organizations, including the Global Ocean Observing System, the Working Group on Climate for satellite observations, as well as many global in-situ networks. GCOS stands fully behind the aims of WMO and Systematic Observations Financing Facility SOFF, to fully implement basic atmospheric observations with support to developing countries.

It is in our mandate to detect gaps in the observing system - and this is why today we must sound the alarm before it is too late! We are noticing worrying signs of: i) decline in in-situ networks, ii) uncertainty in follow-on satellite missions, iii) and barriers to data access, including historical ones.

We are here mentioning just a few examples: a decrease of moored buoy stations in tropical oceans in the last 10 years, impairing our capability to understand and predict climate phenomena like El Niño and tropical cyclones, as well as their impacts. In the last year alone we have seen a 2% drop in daily upper air profiles, and a reduction in delivery of monthly climate statistics.

More generally, our level of certainty in the future sustained operation of important satellite and ocean observing capabilities has dropped. It would be fair to say that the threat level to systematic observations is at its highest since GCOS was created. This will jeopardize our collective capacity to monitor the changes in the climate system, as required by numerous

UNFCCC areas of work. More investment across more Parties is needed, and the planning must start now.

GCOS, recognizing the urgency of the moment, is advancing rapidly, with the exceptional decision by its Steering Committee to accelerate the preparation of the next GCOS Implementation Plan for 2027. This next Plan will identify actions to improve a fit for purpose global observing system for climate and will be published jointly with its Status Report. These two documents will directly inform Parties' decision making, not only in the Research and Systematic Observation agenda of the UNFCCC, but also for the Nationally Determined Contributions, the National Adaptation Plans, the Global Goal on Adaptation, the Global Stocktake, and Loss and Damage.

Despite its achievements, GCOS is facing an existential challenge: without new and sustained financial support, the GCOS Programme will not survive beyond 2027. This would mean the end of the only mechanism that holistically assesses and coordinates climate observations at global level across all domains, and the full data value chain, from rescue to provision.

In the spirit of *mutirão* – the collective effort that inspires this COP – we appeal to Parties for urgent and sustained support to the GCOS Programme.