
**GCOS STEERING COMMITTEE
TWENTY-SEVENTH SESSION**

GCOS SC-27, 28–31 October 2019
Paris, France

Climate Observation Conference

(Submitted by the GCOS Secretariat)

Summary and Purpose of Document:

The document discusses briefly the motivation for a second climate observation conference, and is asking to decide on holding one.

Action Proposed:

Adopt the draft Decision 7.2.

DRAFT DECISIONS

Draft Decision 7.2 (SC-27)

1. The Steering Committee decides to hold a Second Global Climate Observations Conference in October 2021.
2. The Steering Committee decides to adopt the concept note for the Second Global Climate Observations Conference as in Annex 1.
3. The steering committee asks the secretariat to
 - a. Identify organizations willing to support such a conference;
 - b. Identify a venue;
 - c. Prepare a plan to be presented to the steering committee for the financial, logistical, organizational and scientific aspects of this conference by 1 December 2019.

Background

1. In accordance with its Memorandum of Understanding¹, GCOS prepares regular reports on the status of the global climate observing system followed by implementation plans that address issues and gaps, and new developments and user needs. These reports are submitted to the WMO and UNFCCC Subsidiary Body on Science and Technology (SBSTA)². In the 2016 GCOS Implementation Plan³, endorsed by the WMO⁴ and UNFCCC⁵, the review and updating of ECV requirements is addressed by actions G10-13. Chapter 2 outlines the general process.
2. One important contribution to the drafting of the 2016 GCOS Implementation Plan was the conference *Global Climate Observations: the road to the future* held in Amsterdam in 2-4 March 2016⁶. This allowed a wide observation and user community to present and discuss their views of the future of climate observations and, thus, supported the drafting of the Implementation Plan.
3. To engage data providers and user communities to provide their input to the next IP, GCOS should hold a second climate observations conference. According to the GCOS work plan, the Implementation Plan will be published in 2022. Therefore, the GCOS Climate Observations conference should be planned for end 2021. Participants will be able to present their views on how the global climate observing system needs to evolve to address the challenges of climate change and to adequately observe the carbon, water, energy cycles as well as the biosphere. The closing of these Earth cycles was identified in the 2016 GCOS IP as being key to allow improved forecasts of climate change. The outcome of the conference will contribute to draft an implementation plan that will be aimed to ensure that these ECV are globally observed, and these observations sustained and openly available.

¹ Memorandum of Understanding between the World Meteorological Organization, the Intergovernmental Oceanographic Commission of the United Nations, Educational, Scientific and Cultural Organization, the United Nations Environment Programme and the International Council for Science. 1998

² E.g. see FCCC/SBSTA/2015/L.18 Research and Systematic Observation and Decision 19/CP.22 Implementation of the global observing system for climate

³ The Global Observing System for Climate: Implementation Needs, 2016, GCOS-200

⁴ Decision 14 (EC-69) WMO 2017

⁵ FCCC/SBSTA/2015/L.18 Research and Systematic Observation and Decision 19/CP.22 Implementation of the global observing system for climate.

⁶ See <http://www.gcos-science.org/>

Annex 1

DRAFT CONCEPT NOTE – Second Conference on Observations for Climate

11-15 October 2021 (tentatively)
Darmstadt, Germany (tentatively)

BACKGROUND and PURPOSE OF THE SECOND CONFERENCE

The second conference on Observations for Climate will focus on the Earth System Cycles, Carbon, Energy, Water and the Biosphere and thus build on the progress made during and after the 1st Observation Conference in 2015. Knowledge and observation gaps of these cycles have now been identified and based on these findings, the conference will initiate a process to develop a holistic strategy, including novel methods and technologies, to close the cycles. This will allow improved forecasts of climate change and its impacts and help to address challenges in adaptation and mitigation.

PARTNERS

Ensure support from partners, notably, WMO, IOC-UNESCO, ISC, UN Environment, EUMETSAT, ESA, NASA, EC Copernicus and its Climate Change Service, the joint space-agencies Working Group on Climate and the Data Advisory Council of the World Climate Research Programme.

PARTICIPANTS

The second conference on Observations for Climate will invite key experts and decisions makers of the Earth observation community. It is expected to have inscribed about 200 participants.

EXPECTED OUTCOMES

The conference aims on identifying actions to close the gaps in the observations for the earth system cycles. These actions will be included in the revised Implementation Plan to be published at the end of 2022, which will feed into the Global Stock Take in 2023, discussed under the Paris Agreement.
