

ГЛОБАЛЬНАЯ СИСТЕМА
НАБЛЮДЕНИЙ ЗА КЛИМАТОМ
НЕУСТАННО СЛЕДИМ ЗА КЛИМАТОМ

SYSTÈME MONDIAL
D'OBSERVATION DU CLIMAT
NOUS VEILLONS SUR LE CLIMAT

النظام العالمي
لرصد المناخ
لنضع المناخ نصب أعيننا

全球气候观测系统
密切监视气候

SISTEMA MUNDIAL
DE OBSERVACION DEL CLIMA
SIEMPRE VIGILANDO EL CLIMA

GLOBAL CLIMATE
OBSERVING SYSTEM
KEEPING WATCH OVER OUR CLIMATE

GCOS Participation to SBSTA-COP (item 11.2)

31st Session of the GCOS Steering Committee

Geneva, 2-5/07/2024

A. Bombelli, GCOS Sec



**GLOBAL CLIMATE
OBSERVING SYSTEM**

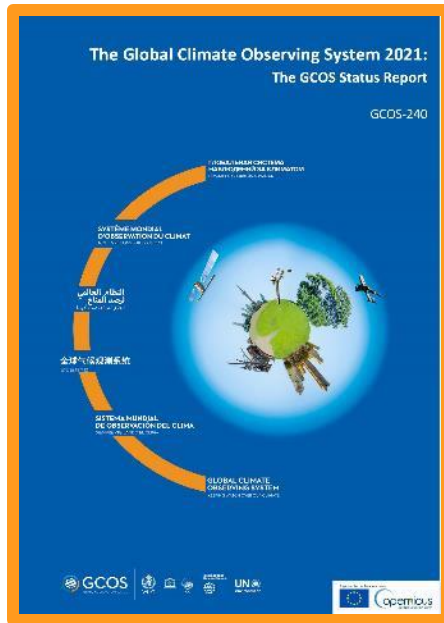
KEEPING WATCH OVER OUR CLIMATE



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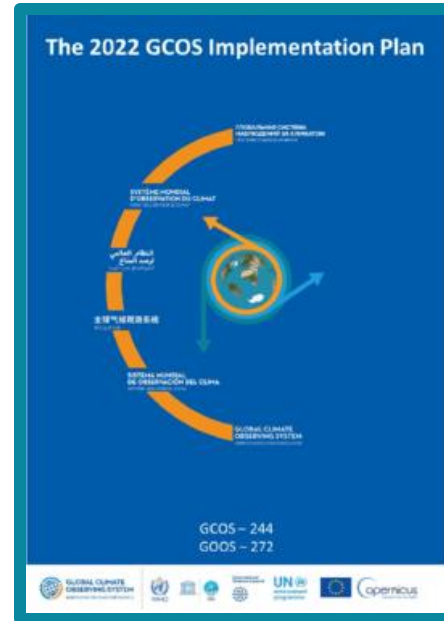
GCOS STATUS REPORT



Assess if the status of the observing system for climate meets those requirements



GCOS IMPLEMENTATION PLAN



Propose actions to address gaps and improve the observing system for climate

Identify what we need to measure (ECVs) and their observational requirements



GCOS ECVs REQUIREMENTS

Implementation of systematic observation

Implementation of systematic observation is supported through the World Meteorological Organization (WMO) [↗](#), Global Climate Observing System (GCOS) [↗](#) and Global Ocean Observing System (GOOS) [↗](#), Joint Working Group on Climate (WG Climate) [↗](#) of the Committee on Earth Observation Satellites (CEOS) [↗](#) and Coordination Group for Meteorological Satellites (CGMS) [↗](#), and other partners and relevant organizations [↗](#).

Mandatory for Annex I Parties
Voluntary for non Annex I



UNFCCC reporting guidelines on global climate change observing systems

Parties provide information on research and systematic observation in their **National Communications**. In regards to research this includes national and cooperative research activities and their contributions to climate science, as well as emerging research needs and priorities. In regards to systematic observation, this includes, detailed technical reports on the status of their national systematic observation in line with the **guidelines** in decision 11/CP.13, and in consideration of the latest **GCOS Implementation plan** with its updated list of ECVs.

UNFCCC Information Paper on Systematic Observations 1997-2023 80 pages!

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GCOS at COP27, Sharm el-Sheikh, 2022

Earth Information Day 2022

09 Nov. 2022

H. Dolman, GCOS Chair

“Keeping Watch Over Our Climate: New Recommendations From The Global Climate Observing System”

A. Rea, GCOS Director

“Updates on the state of the climate and the global climate observing system - 2022 GCOS Implementation Plan”

Anthony Rea
WMO Infrastructure Dept.

Han Dolman
GCOS Steering Committee

GCOS 2022 IP – side event

11 Nov. 2022



Sharm el-Sheikh Implementation Plan

VII. Early warning and systematic observation

26. (the Conference of Parties) Emphasizes the need to address existing gaps in the global climate observing system, particularly in developing countries, and recognizes [...] the need to enhance coordination of activities by the systematic observation community and the ability to provide useful and actionable climate information for mitigation, adaptation and early warning systems

GCOS at COP27, Sharm el-Sheikh, 2022

SBSTA - Research and systematic observation

Implementation of the Global Climate Observing System

Welcomes the 2022 Global Climate Observing System Implementation Plan and the 2022 Global Climate Observing System essential climate variables requirements and encourages Parties and relevant organizations, as appropriate, to work towards the implementation of the 2022 Global Climate Observing System Implementation Plan;

Emphasizes the need to address systematic observation gaps, particularly in developing countries and for ocean, mountain, desert and polar regions and the cryosphere in order to improve understanding of climate change, climate-related risks and tipping points, and adaptation limits and to ensure enhanced delivery of climate services and early warning systems;

Notes with concern the existing gaps in the global climate observing system and recognizes the need to enhance the coordination of activities by the systematic observation community and improve its ability to provide useful and actionable climate information for mitigation, adaptation and early warning systems, as well as information to enable understanding of adaptation limits and of attribution of extreme events.

GCOS at UNFCCC COP28, UAE, 2023

- GCOS Statement presented at SBSTA-59 Plenary
- GCOS actively involved in the organization of the Earth Information Day



SB 59 RSO Conclusions

- SBSTA recognized the vital importance of robust Earth observation systems and related long-term data records for enhanced understanding of changes in the global climate system and their attribution, mitigation and adaptation action, and early warning systems.
- It encouraged Parties and relevant organizations to further strengthen their provision of support to the systematic observation community.

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GCOS Participation to SBSTA-COP (item 11.2)

Report from SBSTA-60, Bonn, June 2024

31st Session of the GCOS Steering Committee

Geneva, 2-5/07/2024

A. Bombelli, GCOS Sec

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GCOS Participation in SBSTA60, Bonn, June 2024

SBSTA60 – GCOS Statement in the Plenary

Highlighted the significant evolution of the climate observations capabilities in the last ≈ 20 years, and the consequent necessity to update:

- the GCOS Climate Monitoring Principles (1999-2003)
- the Reporting guidelines on global climate change observing systems (2007)
- the GCOS Status Report (2021): need to start working on it (under request by SBSTA at COP30, 2025) on 2026 in order to submit it to COP32 (2027).



“As greater and greater challenges await us, GCOS will need the support of its partners organizations and the Parties to the UNFCCC in order to tackle them. GCOS is looking forward to continue working with all of you to ensure a sustainable future for generations to come”
(GCOS Statement, SBSTA60)

GCOS Participation in SBSTA60, Bonn, June 2024

SBSTA60 – Draft Conclusions on Research and Systematic Observation

(FCCC/SBSTA/2024/L.9)

2. The SBSTA noted with appreciation the statements delivered at the opening plenary of this session by representatives of **GCOS**, IOC, IPCC, WCRP, and WMO*.

3. The SBSTA emphasized the need to ensure the continuity and sustainability of research and systematic observation for data availability, which are fundamental for research, including for the **Global Climate Observing System**, and encouraged enhanced support in that regard.



16th Research Dialogue

GCOS Participation in SBSTA60 – Behind the scenes

**Email exchange between GCOS
Chair and SBSTA Chair
GCOS presentation at the Climate
Policy Advisors meeting
Interactions with national
delegates: Brazil, Chile, Germany,
Ireland, Italy, Luxemburg,
Switzerland**

Planning COP29 / SBSTA61

Pushing forward the GCOS activities under the UNFCCC agenda

What	How
GCOS Statement	Make explicit (with the right wording) the need to support GCOS and to update: GCOS Climate Monitoring Principles, Reporting Guidelines for Climate Observations, GCOS Status Report.
Earth Information Day	<ul style="list-style-type: none">Actively contribute to its organization (deadline for inputs: 30 August)Give a presentation highlighting same points as above and the possible GCOS contribution to Adaptation (depending on the SC discussion)
Joint event with WGC?	To be discussed with WGC and SC
GCOS Delegation	GCOS Chair + 1 from GCOS Sec

Outcomes: clear SBSTA requests to GCOS in the COP conclusions

Thank you!



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Reporting on global observing systems for climate

The Conference of the Parties,

Recalling decisions 4/CP.5, 5/CP.5, 11/CP.9 and 5/CP.10,

Noting the need to revise the “UNFCCC reporting guidelines on global climate change observing systems”¹ in order to reflect the priorities of the Global Climate Observing System implementation plan and incorporate the reporting on essential climate variables,

Recognizing the proposals made by the secretariat of the Global Climate Observing System,

Having considered the recommendations of the Subsidiary Body for Scientific and Technological Advice on this matter at its twenty-third, twenty-fifth and twenty-seventh sessions,²

1. *Adopts* the revised UNFCCC reporting guidelines on global climate change observing systems as contained in the annex to this decision;³
2. *Decides* that these revised guidelines should take effect immediately for the preparation of detailed technical reports on systematic observations in accordance with the provisions of decisions 4/CP.5 and 5/CP.5;
3. *Requests* Parties included in Annex I to the Convention to continue providing such reports in conjunction with their national communications;
4. *Invites* Parties not included in Annex I to the Convention to provide such reports on a voluntary basis.

