



Weather
and climate
data for
resilience

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GCOS and SOFF

SOFF Advisory Board and opportunities for engagement

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GCOS as part of SOFF Advisory Board

The SOFF Steering Committee ([Decision 8.8](#))

Notes that the SOFF Advisory Board include relevant stakeholders across the meteorological value chain to provide recommendations to the Steering Committee; and that the Steering Committee endorses the composition of the Advisory Board and reviews it regularly.

Acknowledges that the Global Climate Observing system (GCOS) is a critical actor on international climate observation development and an important partner to SOFF that can strengthen SOFF positioning with the UNFCCC and ensure SOFF results are fully leveraged by climate information users.

GCOS as part of SOFF Advisory Board cont.

Acknowledges the Advisory Board Decision 7.1 that recommends the inclusion GCOS as a Member of the Advisory Board.

Endorses the inclusion of GCOS as a member of the SOFF Advisory Board.

Requests

- The SOFF Secretariat to inform GCOS and the Advisory Board accordingly.
- The GCOS Secretariat to communicate to the SOFF Secretariat the principal representative and an alternate.
- The SOFF Secretariat to make available the updated composition of the Advisory Board on the SOFF website.

SOFF Advisory Board composition and role



SOFF and GCOS Key linkages (I)

- **10 of the 55 ECVs are the GBON mandatory observation variables**, namely atmospheric pressure, air temperature, humidity, horizontal wind, precipitation, snow depth, upper air temperature, upper air humidity, upper air wind, and sea surface temperature
- **Currently, SOFF supports 9 ECVs** as current focus is on GBON surface and upper air operated from land. SOFF supports GBON standard density network compliance, with some flexibility.
- **SOFF contribution to GCOS implementation:** SOFF is providing grant financing and technical assistance for the sustained collection and international exchange of surface-based weather and climate observations according to the GBON regulations.

Key linkages (II)

- **GCOS and SOFF support Research and Systematic Observations within the COP and UNFCCC framework.** The UNFCCC Convention (Article 5) says that parties shall "support and further develop, as appropriate, international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort"

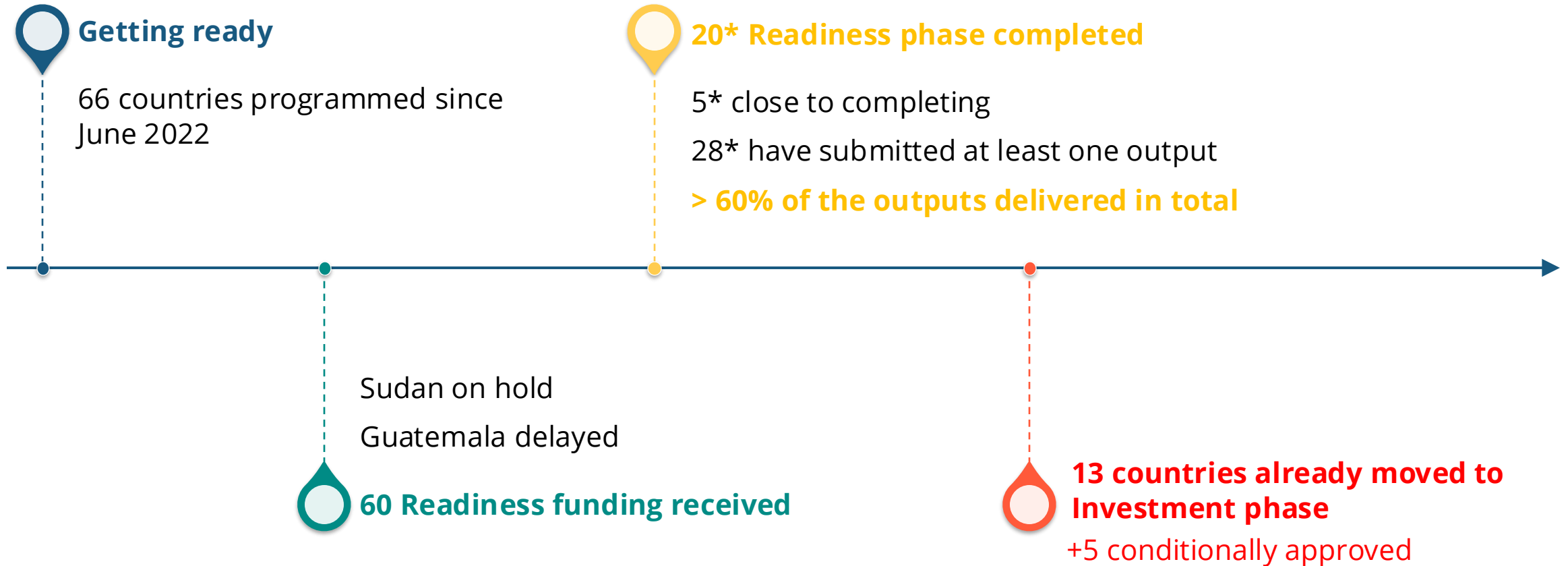


Earth Information Day, 2023 at COP28.

Left: Markus Reppik, Director SOFF; right: Thelma Krug, Chair of GCOS

Source: [UNFCCC](https://unfccc.int)

SOFF Implementation Progress



*Numbers updated from the INF 8.1 to reflect current status

Collaboration: short-term no cost

- **Alignment of networks:** Consideration of alignment of GSN (GCOS Surface Network) and GUAN (GCOS Upper-Air Network) with GBON.
- **Guidance in SOFF Operational Handbook:** Consider a GCOS station when developing National Gap Analysis (NGA) and National Contribution Plan (NCP). Plan to include in update of SOFF Guidance Handbook (led by WMO TA) to encourage peer advisor prioritize or consider a GCOS station when determining a GBON station. GCOS will provide a list of contributing stations to GCOS networks (principally GSN and GUAN). Action: Update the Operational Guidance Handbook.
- **Global archives:** Efforts by GCOS have ensured that observations taken reach global archives and are exploitable by climate users. It will be imperative that SOFF supported observations reach these repositories so that their value is assured in perpetuity.
- **Aligning at UNFCCC, COP and RSO/Earth Information Day:** Aligning key messages and showcasing collaborations towards parties and observers underlines progress made and shows needs in overlapping areas.

Collaboration: medium-term

- **Training:** SOFF funding trainings on technical capacity related to GCOS (e.g. CLIMAT messages)
- **Monitoring:** Impact of SOFF support on data performance of GCOS stations by GCOS Lead Centre of WMO TA VI
- **Reference network:** support GCOS reference network by using same equipment to include additional standards" including deliberate redundancy, quality check, transmission to dedicated processing centres

Collaboration: long-term

- **GBON/SOFF expansion to other earth observation domains.** The main goal of this potential expansion is to support to the monitoring of additional ECVs. This could be implemented in stages by identifying another subset of ECVs that are theoretically relevant to the SOFF scope. This is a long-term plan and will require costs for the implementation, in particular during the SOFF investment phase. Benefit: SOFF expands its support to GCOS and increases its alignment with the GCOS mission. Action: prepare an options paper by end-2024.

Next steps

- Identify GCOS representative on Advisory Board
- Next meeting to take place in early October in advance of the next SOFF Steering Committee
- Identify operational areas for coordination (starting with short-term), focal points and actions