Item 3 Activity Report 27th Session GCOS Steering Committee

28 – 31 October 2019 IOC of UNESCO, Paris, France

GCOS Secretariat

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Strategies:

(a) Programme Strategy - not approved(b) Green Strategy - approved

(a) IOC EC 2018 noted the development of the strategy and requested to finalize and approve the strategy; IOC Assembly 2019 called on other sponsors to finalize and consider how they will help to implement the strategy;

WMO 2019 does not accept strategy; Awaiting further guidance from WMO.

(b) GCOS Green Strategy endorsed by IOC, ISC in July 2019; approved by WMO 18 October 2019.

Indicators

Part of the Communication Strategy.

For describing the rate and range of climate changes, and also becoming an input into the UNFCCC.

UNFCCC and C3S are keen on further developments.

WMO has hired a consultant to write a science paper on "WMO indicators".

Continuing development of further indicators needs to be decided.

Climate Indicators

	Temperature and Energy	Atmospheric Composition	Ocean	Cryosphere	Biosphere
Global Indicators	Surface Temperature	Atmospheric CO ₂	Ocean Acidification	Glacier Mass Balance	
	Ocean Heat		Sea Level	Arctic and Antarctic Sea Ice	
Indicators under development	Heat Waves		Heavy Precipitation Droughts		Ecosystem change
Supplementary Indicators	Top of atmosphere energy balance	Methane N ₂ O Halocarbon GHG		Snow extent	
			Water		

Paris Agreement

A major driver for climate observation needs. Adaptation, a significant element of the new GCOS Implementation Plan is an extremely important aim of the Paris Agreement.

The report on "Systematic Observations and the Paris Agreement" (approved by GCOS SC-26, 22-26 October 2018) had been provided to SBSTA as INF document, by request of Parties.

GCOS Progress since SC-26: Improving global climate observations

See Activity Report document:

- 1. Promoting Global Climate Indicators
- 2. Using Radar to compliment precipitation climatology
- 3. Lightning Observations for Climate Applications
- 4. Regional Workshops
- 5. Observations to support Adaptation
- 6. Progress in providing access to ECVs
- 7. Continued commitment of space agencies
- 8. GCOS Network Management
- 9. Developing the ocean observing system for climate
- 10. Regional Ocean Observing System reviews and development projects
- 11. Ocean ECV Requirements
- 12. Ocean Observing System implementation and performance tracking
- 13. The OceanObs'19 Conference
- 14. Planning cycle for the GCOS towards the Global Stocktake







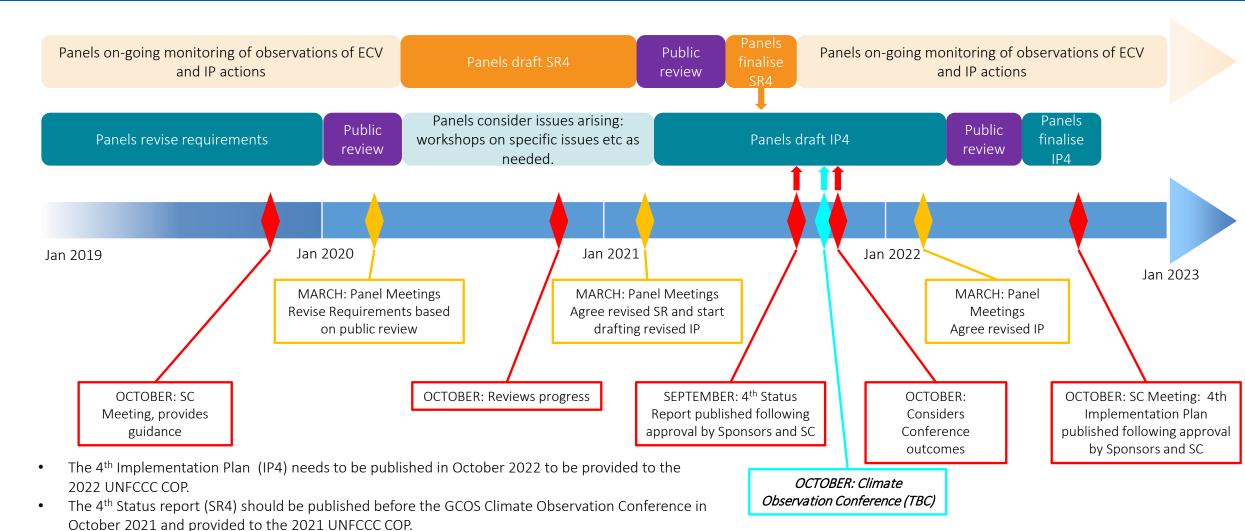
These deadlines imply that the review of updated requirements needs to be in Jan-Feb 2020. This

The Steering Committee (SC) in 2021 will be immediately after the co-located GCOS Climate

also allows time for any issues arising to be addressed before IP4 is drafted.

Observation Conference

Timeline



gcos.wmo.int 10/7/2019

GCOS Programme Activities - Panels







All GCOS Panels summit, plus CEOS-CGMS WG Climate, plus WDAC 18-22 March 2019, Marrakesh, Morocco

- → Agenda Items 6 (Tuesday 29 Oct, a.m.)
- → Agenda Item 8.4 (Wednesday 30 Oct, a.m.)

GCOS Programme Activities - Cross Panel Activities







Planned expert team meetings on cross-panel issues:

- 1. coastal zones cross-GOOS-TOPC: OOPC is establishing a boundary currents, shelf interactions task team which will bring attention in towards the coast; for the coastal aspects, OOPC will work through the GOOS biogeochemistry and biology Panels.
- 2. cross-validation of ECV products: better understanding adaptation needs. Discussing future activity with WCRP's grand challenge on Sea Level Rise and Coastal Impacts, and GFCS on observations of sea level required to inform decision making.
- 3. complementing ECV product requirements

GCOS Programme Activities - Cross Panel Activities







Planned expert team meetings on cross-panel issues in 2018, on:

In addition, plans are being developed inter-sessionally, led by OOPC on:

- 4. Review of the observing system required to track ocean heat and freshwater content
- 5. Development of the observing system to meet requirements for Ocean Heat Fluxes (with AOPC). Also contributing to improved tracking of climate cycles.

GCOS Programme Activities – UNFCCC

Supporting Parties of the UN Framework Convention on Climate Change (UNFCCC):

SBSTA 49, COP24, 3 – 8 Dec 2018, Katowicz, Poland RSO conclusions were not agreed at this session and taken to SBSTA 50

SBSTA 50, Research Dialogue, 17 – 21 June 2019, Bonn, Germany RSO conclusions were adopted by the SBSTA on Thursday 27 June https://unfccc.int/documents/196717

SBSTA 51, COP25, 1 – 7 Dec 2019, Santiago de Chile, Chile *Earth Information Day – 3 December 2019*

→ Agenda Item 9.2 (Wednesday afternoon)

GCOS Programme Activities – Group on Earth Observations (GEO)

Member of the Steering Committee on GEO-Carbon \rightarrow GEO-Carbon did not meet again after the chair resigned.

Member of the expert advisory group for streamlining GEO, 3 meetings.

no representation at the GEO Plenary.

→ Agenda Item 9.3 «partners », Wednesday p.m.

GCOS Programme Activities - space agencies

- CEOS 32nd Plenary, 17-18 October 2018, Brussels, Belgium
- Joint CEOS-CGMS WG Climate is reporting to SBSTA on climate monitoring from space in response to GCOS
- WG Climate participated at Joint Panels Meeting in Marrakesh, March 2019
- CGMS: 20 24 May 2019, Sotchi, Russia
- CEOS SIT (April) and Technical Workshop (September), remote presentations
- CEOS 33rd: 14 16 October 2019, Hanoi, Vietnam
 - Letter of support for the continuation of GCOS from space agencies to WMO

GCOS Programme Activities – partner programmes

- World Climate Research Programme, Joint Steering Committee-40, 6 10 May 2019, WMO, Geneva, Switzerland
 - → no WCRP representation at SC27
- WCRP Data Advisory Council, 8th session, 20 22 March 2019 (in parallel to GCOS JPM, Marrakesh)
- C3S expert panel meeting, 19 20 February 2019, Reading, UK
- Copernicus Climate Change Service, General Assembly, 28 Oct 1 Nov 2019,
 Warsaw, Poland

→ Agenda Item 9 «Partners»

GCOS Programme Activities - Regional Activities

The GCOS Implementation Manager, Tim Oakley

→ Agenda Item 8.7, Wednesday a.m.

Workshops:

GCOS/WIGOS/UNFCCC/GFCS Workshop on regional implementation, 9-12 October 2017, Nadi, Fiji (focus on upper-air, precip)

GCOS/WIGOS/C3S/UNFCCC/GFCS Workshop in East Africa, Entebbe, Uganda, 31 Oct – 2 Nov 2018, (focus on data management)

GCOS/WIGOS/UNFCCC Workshop in Caribbean, Belize City, Belize, 10 – 12 July 2019

GCOS Programme Activities - Regional Activities

Meetings for the uptake of the Regional Workshop Programme 2018 had been actually scheduled for 2017.

Decision in Helsinki was to call in a:

- Task team on the design of the workshop programme (1st Quarter 2019)
- Task Team on the implementation of the workshops (2nd Quarter 2019)

Perspective to organize a 2020 workshop in Central/East Europe, based on interest of Members during WMO Congress.

GCOS Programme Activities — Executive Bodies

Receiving advice and guidance from the sponsoring organisations:

- WMO Congress-18, 5 14 June 2019
- IOC Assembly 30, 25 June 4 July 2019, Paris, France

→ Agenda Item 2 «Sponsors»

