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**GCOS STEERING COMMITTEE  
THIRTY FIRST SESSION**

GCOS SC-31, 2–5 July 2024  
WMO, Geneva, Switzerland

**Timeline of the GCOS Task Team on Essential Climate  
Variables (ECV) Rationalization**

**Timeline of the GCOS Task Team on ECV Rationalization**

The Steering Committee is asked to consider and approve the timeline of activities of the GCOS Task Team on ECV Rationalization, including an in-person meeting at the end of 2025.

**DRAFT DECISION (x)**

The Steering Committee decides that the GCOS TT on ECV Rationalization will work according to the timeline listed in Table 1.

**Background:**

The development and stewardship of the Essential Climate Variables framework is one of the main outputs from GCOS. These constitute the minimum set of observations required to systematically observe the Earth's changing climate across three domains: the ocean, land and atmosphere. ECVs have facilitated the implementation of the observing system through a user-driven design, guiding investment decisions and sustaining observations. They have been utilized to assess the system's fitness for purpose, identify gaps, and establish standards and global practices for monitoring and data management. Additionally, ECVs serve as a powerful communication tool, mobilizing climate observing communities. A set of Essential Climate Variables were developed by GCOS in the late 1990's with the first set of requirements for observing these variables published in 2010 (GCOS Implementation Plan, 2010). [Bojinski et al. \(2014\)](#) provides an overview on the rationale, development and uptake of the ECV framework. GCOS expert panels develop sets of requirements for the ECVs every 5 years as part of the Implementation Plan process, and these are published by GCOS, and integrated into the WMO OSCAR database of requirements.

The list of ECVs and their requirements has evolved through time, with panels having a somewhat heterogenous approach. The Steering Committee in 2021 (Decision 29/1) assigned the GCOS Secretariat, in consultation with the panel chairs, the task of proposing a new grouping (rationalization) of ECVs. This matter was further addressed by the GCOS Steering Committee 30 (2022), which adopted a workplan for the rationalization through Decision 30/3. A cross-panel group of experts discussed the proposal at the 2023 GCOS Joint Panel Meeting,

leading to the establishment of the GCOS ECVs Rationalization Task Team, consisting of three members from each panel and three external members. The ultimate goal is to ensure the ECV list's transparency, consistency, and fitness for purpose.

### The work of the Task Team:

The TT was established with the following mandate:

1. To define the process that must be followed for an ECV or ECV product/quantity to be adopted.
2. To revise the concept and definition for both an "ECV" and an "ECV quantity".
3. To revise the existing ECVs and ECV quantities and produce a proposed new set of ECVs and ECV quantities.
4. To conduct a consultation and review process of the updated ECV list and edit.
5. To update and re-revise the ECV list taking consideration of the stakeholder feedback.

The Task Team had a first meeting on 21 November 2023, followed by three further online meetings and an in-person meeting at the end of May 2024.

The Task Team has to date worked on points 1, 2 and 3 of the mandate. The Task Team has also discussed what key stakeholders should be consulted preferentially, what tools should be used for that consultation and how/when the public review should take place. Finally, it defined a timeline to undertake the consultation and review process of the updated list of ECV and ECV quantities, presented below in Table 1, which includes an in-person meeting at the end of 2025.

**Table 1: ECV Rationalization Task Team Timeline 2024-2025**

<b>Time</b>	<b>Activity</b>	<b>Responsible</b>
Q3 2024	Consultation of ECV/ECV quantities list v.1 with GCOS panels	GCOS officers
Q3 2024	Preparation of materials to be used during the consultation with key stakeholders	TT chair and Secretariat
MILESTONE Sep 2024	<ul style="list-style-type: none"> <li>• ECV/ECV quantities list v.2</li> <li>• Materials for consultation process finalised</li> <li>• Final list of key stakeholders</li> </ul>	TT
Q4 2024	10-15 structured interviews with stakeholders	TT chair and Secretariat and TT members
Q1 2025	Analysis of the results from the interviews and preparation of material for public review	TT chair, Secretariat and TT members
MILESTONE March 2025	<ul style="list-style-type: none"> <li>• ECV/ECV quantities list v.3</li> <li>• Materials for public review, including PPT to inform in Conferences finalised</li> </ul>	TT (online meeting)
Q2 2025	Public Review	GCOS Secretariat
Q3 2025	Analysis of the results from the public review	TT chair, Secretariat and TT members
MILESTONE End of 2025	<ul style="list-style-type: none"> <li>• ECV/ECV quantities list v.4</li> <li>• Draft 0 of an ECV paper describing the process and introducing the new ECVs and procedures</li> </ul>	TT (final in person meeting)