

REPORT ON ACTIVITIES OF THE GCOS-IRELAND NATIONAL COMMITTEE IN 2022.

A GCOS National Committee for Ireland (GCOS-Ireland) was established early in 2018 following a joint initiative by the Director of Met Éireann (MÉ), the Director General of the Environmental Protection Agency (EPA), and the Chief Executive of the Marine Institute (MI). The committee consists of nominees from MÉ, EPA and MI and complimented by Teagasc as well as remote sensing expertise.

GCOS-Ireland works to ensure the sustained provision of reliable physical, chemical and biological observations and data records for the total climate system – across the atmospheric, oceanic and terrestrial domains, including hydrological and carbon cycles, for Ireland.

The role of GCOS-Ireland is to coordinate and promote the GCOS observing principles relating to Essential Climate Variables (ECVs) of relevance to Ireland. The report on ‘The Status of Ireland’s Climate 2020’, and make recommendations regarding the sustainability of the Irish ECV observing system. This report was published in 2021 ([Climate Change | Environmental Protection Agency \(epa.ie\)](#)).

The Committee met on two occasions during the year, on 24 January and 14 December. Sarah Gallagher of Met Éireann chaired the meetings. Met Éireann are the GCOS National Coordinator in Ireland and act as the permanent Chair for GCOS-Ireland.

GCOS-Ireland Committee Meeting [Jan 24th]

At this virtual meeting a speaker was invited from UCC on behalf of Climate Ireland updating the committee on progress on the Climate Ireland Website, including coding language, plots and graphics. Plans to automate the process of updating ECV’s.

The Status of Ireland’s Climate report was a milestone report with tailored information for Ireland that generated plenty of media attention. GCOS complimented the report and all those who contributed to its publication. Discussions on the format of future reporting and how to lead to a tiered knowledge approach were discussed. Terms of reference of the committee were reviewed.

GCOS-Ireland Committee Meeting [14th December]

At this virtual meeting invited speaker from EPA an update on the status of ICOS Ireland. ICOS (the Integrated Carbon Observation System) is a European Research Infrastructure (RI) identified as part of the European Strategy Forum on Research Infrastructures (ESFRI) process. It consists of a network of European observing systems operated at member state level and is underpinned by thematic centres (ocean, atmosphere and ecosystem) and a centralized administration and database facility in Helsinki. Measurements in Ireland and the considerable new activity in this space. The official joining date for Ireland: 1st January 2023. GCOS-Ireland welcomes the development.

Discussions were also carried out regarding the implementation of the Status of Ireland’s Climate recommendations. A workshop covering terrestrial ECV’s under GCOS-Ireland was also discussed. Terms of reference of the committee were reviewed. Next meeting Q1 2023.

Membership: The Committee members during 2021 were:

- Sarah Gallagher, Met Éireann, Chair GCOS-Ireland
- Frank McGovern, EPA
- Stuart Green, Teagasc
- Glenn Nolan, Marine Institute
- Jenny Hanafin, ICHEC, representing the Earth Observation Community
- John McEntagart, EPA

Sarah Gallagher, Head of Observations Division, Met Éireann

Chair, GCOS-Ireland National Committee,

Jan 2022

ROLE, STRUCTURE AND TERMS OF REFERENCE OF THE GLOBAL CLIMATE OBSERVING SYSTEM FOR IRELAND NATIONAL COMMITTEE (GCOS-Ireland)

The Global Climate Observing System (GCOS) is co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO), the United Nations Environment Programme (UN Environment), and the International Science Council (ISC). It regularly assesses the status of global climate observations of the atmosphere, land and ocean and produces guidance for its improvement.

GCOS was established in 1992 to ensure that users have access to the climate observations, data records and information they need to address pressing climate-related concerns.

In 2018 a Global Climate Observing System National Committee was established in Ireland (GCOS-Ireland). GCOS-Ireland works to ensure the sustained provision of reliable physical, chemical and biological observations and data records for the total climate system – across the atmospheric, oceanic and terrestrial domains, including hydrological and carbon cycles, for Ireland.

The role of the National Committee is to coordinate and promote the GCOS observing principles relating to Essential Climate Variables (ECVs) of relevance to Ireland. The National Committee is currently supported by a two year fellowship funded jointly by the Environmental Protection Agency, Marine Institute and Met Éireann, which, inter alia, will produce a report similar to ‘The Status of Ireland’s Climate 2012’, and make recommendations regarding the sustainability of the Irish ECV observing system.

Structure:

- The committee shall consist of nominees from participating organisations or agencies. (The initiating organisations are Met Éireann, the Marine Institute and the Environmental Protection Agency, complimented by Teagasc as well as remote sensing expertise. Other agencies or organisations may be invited to participate as agreed by the committee).
- The committee shall be chaired by the GCOS National Coordinator (Met Éireann).
- The committee shall meet at least twice a year.

Terms of Reference:

- Develop and maintain a shared knowledge of national and international GCOS activities.
- Promote adherence to the GCOS climate monitoring principles and implementation of common observing standards and methods.
- Coordinate activities between the climate observation partners in Ireland (Government, agency, research institutions and universities).
- Identify gaps in the observational infrastructure and recommend appropriate actions including the use of Earth Observations and emerging technologies.
- Provide regular reports on the status of Ireland’s climate subject to resources.
- Communicate issues and challenges with respect to the National Observing Capacity to relevant Organisations and Departments.
- Report annually on the activities of the committee to the participating organisations.
- Terms of Reference to be reviewed on an annual basis.