



SUBMISSION BY CZECH REPUBLIC AND THE EUROPEAN COMMISSION ON BEHALF OF THE EUROPEAN UNION AND ITS MEMBER STATES

Subject: Submission on the Earth Information Day 2022

Prague, 26th July 2022

1. Introduction

Earth Information Day (EID) provides an opportunity for the UNFCCC to see the latest data and information about the state of the Earth's climate system based on observations of essential climate variables. These include data on trends and levels of greenhouse gases and other climate forcers. EID is now a regular event which is held annually at the SBSTA in connection with the COP. In combination the information provided by the EID and Research Dialogue enables the UNFCCC to keep track of and reflect on various dimensions of climate change including how it is being observed as well as recent developments in scientific understanding. These are key pillars of the SBSTA's consideration of Research and Systematic Observation (RSO) issues.

The EU considers that EID provides important insights and information for actions to implement the UNFCCC and its Paris Agreement. It appreciates the work done to provide systematic observation and therefore welcomes this opportunity to submit its views on possible themes for the next and future EIDs.

2. Background

The establishment of key elements of the Global Climate Observation System (GCOS) is a significant achievement. While important gaps remain, which need to be addressed, GCOS is providing essential data on the global climate system and how it is changing. It is important that the latest information it provides on the changing global climate is considered annually by the UNFCCC. Unfortunately, to date the information provided in EID has continued to show the lack of sufficient progress in addressing the causes of climate change, while also reflecting its increasing consequences. Such information, can and should inform wider negotiations under the UNFCCC and particularly actions by Parties.



3. Views of the EU on elements of Earth Information Days

The EU considers that EID should first and foremost provide the latest information on the state of the global climate system, including current information on trends and levels of atmospheric greenhouse gases. It therefore looks forward to being informed and updated about the state of the climate system and ongoing trends at the EID 2022. The EID should also provide information on observed changes in all components of the Earth Systems for which sufficient data exist to provide robust climatological analysis. These include the Ocean, Atmosphere, Land, and the cryosphere. Where possible, observations should be combined and co-analysed to provide key insights on related trends and observed changes.

The EID also provides an opportunity to assess where gaps exist in observation systems as well as ongoing, and planned development of climate system observation activities (in-situ, air-borne, remote sensing including from space) at global, and regional scales, as well as their integration into existing data sets and long records, and presentations on their added value for climate monitoring, analysis, and modelling, contributing to a continuously developing deep understanding of the climate system.

4. Detailed information that can be considered at EID2022

The EU considers that the following elements can be addressed at EID 2022, and during future Earth Information Days, as appropriate:

Information on the current state of the global climate systems including

- The most recent information on the key drivers of climate change, in particular long-lived greenhouse gases as well as aerosols and their precursors, land use change, and estimates of their impacts on the global energy balance and on the water cycle;
- Information on the energy imbalance in the ocean, terrestrial systems, the cryosphere and the atmosphere through indicators such as the average global temperature, sea-level rise, ocean heat storage and cryosphere mass balance, and other key indicators across the climate system components;
- Innovative systems for the observation and possible early warning systems related to low-likelihood high impacts events as defined in the IPCC AR6 WG I and WG II reports, in particular on the cryosphere;
- Information on attribution and occurrence of extreme events (atmospheric and marine), in particular the most intensive ones, building on the AR6 key findings on increasing trends in heat-related and precipitation extremes;
- Information on climate change driven ecosystem changes, changes to the carbon and nitrogen cycles, and relevant ocean processes, in particular ocean acidification;

On gaps and areas for development

- Updates on the status of the GCOS and its implementation, including coverage



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of ECV and regional challenges;

- Information on the GCOS Implementation Plan 2022 and the way forward in addressing observational gaps across atmosphere, ocean, terrestrial and cryosphere domains at global, and regional scales;

The EU considers that the EID agenda should time should include time for Q&A between representatives of the climate observation community, and Parties and Observers.

The EU notes that a poster session may add value for an in-depth exchange between experts and Parties as well as Observers during the EID.