

The Status of the Global Observing System for Climate

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In October 2015, the GCOS programme published a report on the *Status of the Global Observing System for Climate*. The report presents an extensive account of how well climate is currently being observed, where progress has been made, and where progress is lacking or deterioration has occurred. Actions required to address the findings of the report are being formulated in preparing a new *Implementation Plan for the Global Observing System for Climate*, which will be published later in 2016 to succeed the current plan published in 2010.

The report starts with introductory discussion covering the needs for and nature of sustained observation of the climate system, the internationally coordinated arrangements under which observations are made and processed, and the concept of the Essential Climate Variables (ECVs) that provides the organisational framework for the report. The report then systematically reviews overarching and cross-cutting topics. This is followed by reviews of observing networks and the observational status of each ECV. These reviews are provided separately for atmosphere, ocean and land. The report analyses data holdings and monitoring information provided by a number of international data centres and presents examples of observational data and derived global data products in the forms of time series and maps. Discussion is linked in an ordered manner to assessments of the progress on actions from the 2010 Implementation Plan. Preparation of the report drew on published material that included the IPCC's Fifth Assessment Report, recent peer-reviewed scientific papers, workshop proceedings and observing-system manuals and guides. It relied on the expert judgement of contributors and a public review process.

The presentation will summarize the report and highlight a number of its key findings.