

## **WCRP Statement for GEO Plenary**

*(Final version 8 January 2014)*

The World Climate Research Programme (WCRP) is sponsored by the World Meteorological Organization (WMO), the International Council for Science (ICSU), and the Intergovernmental Oceanographic Commission (IOC) of the UNESCO. The WCRP mission is to facilitate analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance, benefit and value to society, with two overarching objectives: to determine the predictability of climate and the effect of human activities on climate.

WCRP plans its current activities in accordance with its Strategic Framework 2005-2015 entitled “Coordinated Observation and Prediction of the Earth System”. The WCRP Implementation Plan of 2009 includes comprehensive investigation of all major components of the Earth climate system (atmosphere, oceans, land and cryosphere) and their interactions. WCRP supports these studies through the activities of its four Core Projects (CLIVAR, GEWEX, SPARC and CliC). Furthermore, in close consultation with the scientific community and stakeholders, WCRP has identified six high-priority research topics that are referred to as Grand Science Challenges. These are:

- regional climate information,
- clouds, circulation and climate sensitivity,
- cryosphere in a changing climate,
- attribution and prediction of climate extremes,
- regional sea level, and
- water availability.

In all the science domains covered, WCRP aims to develop observations and numerical models as tools for advancing climate understanding and prediction. WCRP also conducts a wide range of education, training, and capacity-development activities.

Since the inaugural Earth Observation Summit in 2003, WCRP has been a key partner of GEO and a major contributor to the GEO “Climate” Societal Benefit Area (SBA). Numerous WCRP-affiliated scientists are engaged in GEO communities of practice that mainstream climate knowledge and help using climate research outcomes for addressing societal needs. WCRP benefits strongly from the GEO high-level advocacy for sustained Earth observations, open and free access to data, and the data interoperability. Together with other partners, such as GCOS and IGBP, WCRP facilitates re-processing and evaluation of climate data sets and produces re-analyses, climate predictions, and projections for vulnerability, impact and adaptation studies. The Earth System Grid Federation, the new pan-WCRP data archiving and dissemination framework, has led to a major enhancement of climate data exchange. WCRP leadership in the Research, Modeling and Prediction pillar of the Global Framework for Climate Services is another important example of WCRP contributions to the “climate SBA”.

WCRP fully supports the GEO 2025 vision, the principles and lines of further GEO development, as expressed in the Geneva declaration, and looks forward to a continuing strong collaboration with GEO on all matters of mutual interest.