



## Added Value

The combination of data collection, analysis, and reporting on climate conditions through the State of the Climate Report is closely aligned with the scope and principles of GEOSS. With a focus on integrating observing system data to useful and accessible information, the State of the Climate Report serves as a hallmark achievement of GEOSS efforts to use integrated global Earth observations to monitor and enhance the understanding of climate variability and change. It also serves as an avenue for providing information that decision makers can use to better understand changing environmental factors that affect human health and well being and positions decision makers to anticipate and manage future risks associated with climate variation and change.

Since the State of the Climate Report focuses on the earth system as a whole, spatial and temporal gaps in data coverage are more easily identified as well as deficiencies in operational systems that provide access to those data. Solutions for filling those gaps are developed through coordination among scientists from the countries participating in the State of the Climate Report. This coordination exemplifies how experts from numerous and diverse countries can work together on an ongoing basis to provide information which is essential to environmental decision making.

## Relevance to GEO

The State of the Climate Report directly serves several GEO societal benefit areas including climate and health. It provides a clear example of how data from GEO's system of systems can be integrated into useful information, not previously available.

## Participants

Scientists from institutions in twenty one GEO member countries participate in State of the Climate reporting: Argentina, Australia, Brazil, Canada, Chile, China, Costa Rica, Germany, India, Iran, Mexico, Morocco, New Zealand, Niger, Portugal, the Russian Federation, South Africa, Spain, Sweden, the United Kingdom, and the United States. In addition, scientists from countries that are not yet GEO members are also key contributors to this program: Armenia, Bosnia and Herzegovina, Colombia, Cuba, Ecuador, Kenya, Mozambique, Panama, Peru, Poland, Turkey, and Uruguay.

## Current Status and Next Steps

The State of the Climate Report is published annually in the Bulletin of the American Meteorological Society and distributed by the World Meteorological Organization to member nations. Included in the 2006 report was a summary of more than 20 Essential Climate Variables from the beneath the ocean surface to the upper atmosphere in every region of the world.

A diverse set of topics that spanned the earth's climate system included, but were not limited to, surface and upper air temperature, precipitation, atmospheric trace gases, ocean salinity, circulation, and ocean carbon content, snow cover, sea ice, sea level, and stratospheric ozone.

The focus of the future is on bringing together new contributing partners from other GEO member countries and further enhancing capabilities associated with the collection, processing, and analysis of data from newly deployed observing systems. Potential linkages with additional GEO Participating Organizations will also be explored, with all efforts focused on enhancing the capacity to observe, analyze, and report on many more Essential Climate Variables in future Reports, providing leaders with an even greater resource for monitoring the earth's climate.