



## CEOS Committee on Earth Observation Satellites

# CEOS STATEMENT TO THE UNITED NATIONS CLIMATE CHANGE CONFERENCE

Conference of the Parties (COP15), Copenhagen, Denmark – December 7-18, 2009

In light of the agreements on the Bali Action Plan, there is a general acknowledgement that 2009 is probably the last chance for pursuing and ratifying an agreement before the first commitment period of the Kyoto Protocol expires in 2012. Although UNFCCC's history shows that countries sometimes come to a halt due to a diversity of views, COP15 allows for an ambitious global agreement including all the countries of the world. The Committee on Earth Observation Satellites (CEOS) intends to follow closely all developments at COP15 and reinforces its preparation and promptness to assist the UNFCCC.

During the 23rd CEOS Plenary, held in Thailand on November 4th and 5th, CEOS Chairmanship for 2010 was handed over to the Brazilian National Institute for Space Research (INPE). On behalf of all CEOS Agencies, INPE is engaged to stress CEOS contributions in support of government actions taken through the Group on Earth Observations (GEO). CEOS is deeply committed to GEO and climate, as reflected by CEOS Agencies' resources allocated to GEO activities in specific response to the GEO Work Plan and the Global Climate Observing System (GCOS) Implementation Plan. As a result of CEOS Agencies collective efforts, several data sets have been generated, most of them publicly accessible. The following representative examples illustrate CEOS accomplishments in support of GEO and the UNFCCC in 2009:

- In the scope of the Reduction of Emissions from Deforestation and Forest Degradation (REDD) in Developing Countries, CEOS has provided the baseline data for implementation of an international forest monitoring network, by supplying both radar and optical satellite data on a continuous basis, during the second half of 2009, for wall-to-wall detection of forest changes in three major tropical forest regions (Southeast Asia, Africa, and South America).
- In 2009, several satellite-borne atmospheric instruments like AIRS, IASI, SCIAMACHY and the new TANSO sensors on board the Greenhouse Gases Observing Satellite (GOSAT/IBUKI) have improved significantly the global, precise monitoring of the density of carbon dioxide and other greenhouse gases (GHG) in support of the Kyoto Protocol. During the GEO-VI Plenary held in Washington DC last November, a GEO Carbon Report was released with the strong support and effort from CEOS. The report has defined the science requirements for the next generation GHG observation network in order to facilitate sustainable monitoring.
- In the field of the sustainable use of natural resources, CEOS Agencies provided easy access to data to stimulate the investment and the development of relevant renewable energy technologies.
- Lastly, the 2009 annual update of the on-line CEOS Mission, Instrument and Measurements Database, which provides to the worldwide Earth Observation community the list of current and future Earth Observation resources from the CEOS Agencies, has been completed.

CEOS priority actions have addressed aspects of climate-related observation of the atmosphere, ocean and land. These have included improvement of data calibration and validation, reprocessing of past data sets, and improving availability of data and products to all countries.

CEOS has also successfully completed a number of key activities in connection with the Virtual Constellations concept. This enables the planning, operation, and exploitation of a number of satellite missions to be coordinated with the intent of improving the adequacy of space-based measurements to meet user needs and address key observational gaps. Progress has been achieved in the initial four constellations focused on Atmospheric Composition, Land Surface Imaging, Ocean Surface Topography (related to sea level), and Precipitation. Hundreds of mid-resolution optical images from the Land Surface Imaging constellation missions in support of Forest Carbon Tracking have been provided.

Among its priorities for 2010 and following both the declarations from the last G8 in L'Aquila (Italy), in July 2009, and the recommendations made at SBSTA-30, CEOS Agencies will conduct activities focused on several main areas:

- Deforestation and forest degradation, relating to REDD and monitoring of other carbon trading and financial instruments.
- Measurements relevant to the reduction of greenhouse gas emissions to better understand climate change processes and modeling.
- Sharing technologies, broadening data access and capacity building to end-users in developing countries through the Data Democracy initiative.
- Provision of satellite data in support of renewable energy.
- Updating the CEOS Response to the GCOS Implementation Plan (itself updated in 2009) and continuation of the reporting to the UNFCCC via SBSTA, on behalf of space agencies, as to progress towards implementation of the GCOS requirements.
- Generation of long-time series of Essential Climate Variables (ECV) products in response to GCOS needs.
- Development of methodologies, as well as validation and inter-comparison of satellite-based applications, for the terrestrial domain as requested by GTOS at SBSTA-30.

INPE's perspective as CEOS Chair in 2010 is an extension of the understanding of Earth Observation satellite data as a public good. The measurement of changes in the climate system on a global basis becomes achievable when access to data is facilitated. CEOS intends to keep working with observing system partners to provide these measurements, which shall give governments throughout the world information essential to developing mitigation and adaptation strategies. In addition, CEOS will, with GCOS and GEO, continue to strengthen this extremely productive communication and cooperation.

In conclusion, CEOS is committed to promote a vision that brings together Science, Earth Observation Technology, and Benefits for our Society. We would like to thank the UNFCCC for the opportunity of expressing actions and achievements carried out by CEOS Space Agencies.



## CEOS Members & Associates

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Global Ocean Observing System (GOOS)  
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