

**Concept Paper**  
**Meeting of Heads of Space Agencies at COP22**  
*Space technologies helping to implement COP agreements*  
*Marrakesh - COP22 Site - Blue Zone*  
*Friday 11 November – 5.00 p.m. to 8.30 p.m.*

**Context**

The 22<sup>nd</sup> session of the Conference of the Parties (COP22) to the United Nations Framework Convention on Climate Change (UNFCCC) will be held in Marrakesh, Morocco, from 7 to 18 November. The COP22, billed as the “Conference of Action”, will be focused on curbing climate change and devising innovative coping strategies. The Marrakesh meeting will also be seeking to develop operational tools as part of the Paris-Lima and Paris-Marrakesh plan.

All stakeholders are ready to support implementation of the Paris Agreement, notably by mobilizing the resources and assets required to collect data and establish indicators for measuring and tracking all parameters related to climate change and its impacts.

Satellite-based Earth observation has enabled great strides in our understanding of ocean and land climate systems. As a result, space remote sensing has become a vital source of data informing decisions to manage natural and environmental resources and to devise strategies for curbing and coping with climate change.

In this respect, satellites and their remote-sensing instruments are key to studying and tackling climate change, since 26 of the 50 essential climate variables identified by the Global Climate Observing System (GCOS) can only be measured from space.

Thanks to numerous space missions (Jason 3, Aqua, Calipso, IASI-NG, GOSAT, OCO2, GEO-IK2, SCATSAT-1, MERLIN, SWOT), space agencies have accomplished significant progress in recent years through measuring instruments that are collecting vast amounts of data for the international community on such key sectors as water, agriculture, forestry, healthcare, energy and transport.

These joint efforts pursued by space programme operators will enable scientists to improve climate models and gain a better understanding of the water and carbon cycles. This knowledge and these measuring tools are therefore crucially important at a time when nations are confronted with the consequences of climate change and seeking to acquire remote-sensing assets to succeed in their endeavours.

**Objectives of the Marrakesh meeting**

With a view to achieving closer coordination between these satellite programmes, heads of space agencies organized meetings in 2015 in Mexico City and this year in New Delhi to examine how satellites can help to study and better understand the processes driving climate change and support hazard management in order to consolidate international cooperation in this area. More than 60 nations have committed to work together to map out a framework for establishing an independent international system designed to collect data on the world's oceans, land surfaces and atmosphere, and to gauge levels of greenhouse gas emissions and other parameters linked to climate change.

Global, coordinated observations backed by a shared and clearly formulated vision are vital to support national and transnational stakeholders in their efforts to curb climate change, which will be the focus of the COP22 in Marrakesh. These concerns and related issues will form the agenda for the meeting of heads of space agencies and representatives of international organizations that will be held on Friday 11 November in Marrakesh to put forward a joint contribution for the COP22.

The Marrakesh meeting is being organized by the French space agency **CNES** in partnership with Morocco's Royal Centre for Remote Sensing (**CRTS**) and Royal Centre for Space Studies and Research (**CRERS**). This meeting will be marked by the Marrakesh Declaration, which will translate the vision of the agencies and international organizations to achieve wider coordination between Earth-observing missions and establish a process for sharing and exploiting collected data and capacity-building actions.

The meeting will revolve around two panel discussions. At the first of these, space agency representatives will present their current and future programmes and initiatives dedicated to collecting and analysing climate change data and indicators. The second panel discussion will look at international cooperation issues related to developing and utilizing these space programmes and building capacity, focusing in particular on the expectations of developing nations. Participants will address the cooperation challenges they are facing and discuss available resources and mechanisms for establishing bilateral or multilateral partnerships.

**Draft programme:**

- **Official opening: Ministers, COP21 and COP22 Chairs (to be confirmed)**
- **Introductory remarks: Context, objectives of the meeting and short review of the state of the art in space technologies contributing to efforts to curb climate change**
- **Panel 1: Space and Climate: how space agencies are helping to implement COP agreements**
- **Panel 2: Cooperating and building skills to exploit satellite data for climate monitoring**
- **Adoption of the Declaration**
- **Reception**

**Venue and Date:**

**COP22 site / Blue Zone / Morocco Pavilion  
Friday 11 November from 5.00 p.m. to 8.30 p.m.**

**Languages:**

**French / English**

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