EARTH INFORMATION DAY

Linking Earth observation with the global response to climate change

Tuesday 8 November 2016

Plenary Casablanca

10:15 – 18:00

Introduction

Systematic observation of the state of the climate – atmosphere, ocean and land – enables the identification of climate change and associated impacts, and future trends. It is the fundamental basis upon which the UNFCCC was founded, the Paris Agreement was adopted, and decision-making at all levels on climate change mitigation and adaptation depend.

The science community provides the systematic observation data and information to advance scientific research knowledge and support climate services. This large breadth of scientific material is needed to assist governments and stakeholders in developing the urgent strategies and action required to assess, track and ultimately attain the Paris Agreement's goals in the context of sustainable development.

Rationale

The Earth Information Day presents the opportunity to optimise engagement and connect information and requirements between the science community, Party and non-Party stakeholders to benefit the intergovernmental process and Paris Agreement implementation.

It will provide an up-to-date picture of the state of the climate and an outlook on developments and opportunities to support decision making on risk assessment, adaptation and mitigation at regional and national level.

It could be a central underpinning for the global stocktake providing dynamic and continuous learning from the science community to inform and motivate acceleration of progress based on the best available science.

Earth Information Day at COP 22 includes a focus on actions and opportunities to support adaptation in Africa.

Programme overview

The Earth Information Day will feature speakers from the heads of UN and international science organizations and agencies and the scientific community on:

- The state of the climate and the global carbon budget and the development of indicators to support adaptation and mitigation;
- The GCOS Implementation Plan 2016 – explaining the essential climate variables, indicators and actions to support the Paris Agreement and the Sustainable Development Goals;
- New developments in the estimation of GHG emissions from Earth observations to support national inventories;
- Earth observation actions and services to support adaptation in Africa.

The broad programme agenda is as follows:

10:15–10:45 Opening
10:45–13:00 Part I: *Current Observations and Knowledge*
15:00–18:00 Part II: *Developments and Opportunities*

Part I and Part II both feature presentations and discussion followed by a poster session where delegates can interact with experts on a one–on–one basis. The posters will be on display for public viewing all day.

Detailed Programme

10.15–10.45	**Opening**	
Speakers	Richard Kinley **UNFCCC Deputy Executive Secretary**	
	Elena Manaenkova **WMO Deputy Secretary General**	
	Vladimir Ryabinin **UNESCO–IOC Executive Secretary**	
10.45–13.00	**Part I: Current Observations and Knowledge**	
Moderator	Carlos Fuller **SBSTA Chair**	
Presentations		
	Omar Baddour **WMO**	*WMO Statements on the Status of the Global Climate: Providing the status of the global climate on annual and multiyear timescales in support of policy and decision making*

	Carolin Richter **GCOS**	*The Global Climate Observing System Implementation Plan 2016: Essential climate variables, indicators and actions to support the Paris Agreement goals*
	Toste Tanhua **GEOMAR** on behalf of **UNESCO–IOC**	*Ocean aspects of the GCOS Implementation Plan 2016: Connection to climate information and services for adaptation and mitigation and the SDGs*
	Glen Peters **Global Carbon Project**	*The Global carbon budget*
	David Carlson **WCRP**	*Products and indicators to monitor the state of the climate system*
	Joseph Intsiful **UNECA**	*Reflections on Part I*

Q&A and Discussion

Poster session and time for one–on–one discussion with experts

15.00–18.00	**Part II: Developments and Opportunities**	
Moderator	Carlos Fuller **SBSTA Chair**	

Presentations

	Christopher Lennard, Andreas Haensler, Grigory Nikulin and Wilfran Okia **CORDEX–Africa**	*African Impacts Atlas: a systematic analysis of regional impacts of a 1.5 and 2 degrees Celsius global warming in Africa under different climate change scenarios.*
	Bernard Pinty **European Commission**	*Towards an operational capacity to monitor anthropogenic CO2 emissions*
	Deon Terblanche **WMO**	*How observations and modelling of greenhouse gases can support the Paris Agreement: an integrated global greenhouse gas information system (IG3IS)*
	Werner Kutsch **ICOS** on behalf of **GEO**	*The GEO initiative on carbon and greenhouse gases: Integration across domains*
	Cat Downy **ESA** – **Future Earth**	*The Paris Agreement and integrated services to aid decision making on climate change adaptation*
	Adrian Fitzgerald **LEG**	*Reflections on Part II*

Q&A and discussion

Poster session and time for one–on–one discussion with experts

Posters

Experts will be available to discuss posters at the end of both Part I (morning) and Part II (afternoon) sessions

Supporting the Paris Agreement

Pascal Lecomte **CEOS**	*Space Agencies and Climate Change: 2016 Global Climate Observing System Implementation Plan*
Carolin Richter **GCOS**	*GCOS Implementation Plan 2016: Observations for adaptation, mitigation and climate science*
Toste Tanhua **GEOMAR** on behalf of **UNESCO**–**IOC**	*GCOS Implementation Plan 2016: Ocean aspects*
Werner Kutsch **ICOS on behalf of GEO**	*GEO's efforts in support of the Paris Agreement*
Karina von Schuckmann and David Carlson **WCRP**	*Towards an Integrated View of the Global Earth Energy Budget*
David Carlson **WCRP**	*Ocean State Report from the Copernicus Marine Environment Monitoring Service*
Anny Cazenave and David Carlson **WCRP**	*Components of a Sea Level Budget for Climate Monitoring*
Blair Trewin and Omar Baddour **WMO**	*The status of the global climate – update on the 2011–2015 period*
Deon Terblanche **WMO**	*Role of high quality observations in international policy making: lessons from the Global Atmosphere Watch Programme*

Mitigation

Martin Herold and Niki de Sy University of Wageningen on behalf of **GOFC**–**GOLD**	*How forest observations and land use change support mitigation efforts*
Phil de Cola **IG3IS, WMO**	*Role of observations in developing mitigation options (examples from IG3IS)*

Adaptation

Modathir Zaroug, Mark New and Christopher Lennard **CORDEX**–**Africa**	*The impact of 1.5°C and 2.0 °C above pre-industrial levels of global warming in semi-arid hot-spots in Africa and India*
Temitope S. Egbebiyi, Chris Lennard, Olivier Crespo and Modathir Zaroug **CORDEX**–**Africa**	*Investigating the Impact of Projected Timing of Climate Departure on Crop Yield over West Africa*

Bonizella Biagini **UNDP**	*A new vision for weather and climate services in Africa*
Joseph D. Intsiful **UNECA**	*Africa – Best practices and lessons from ClimDev–Africa and the African SIDS initiative*
Juan-Carlos Villagran **UNOOSA**	*Satellite technologies for national adaptation planning*
Loss and Damage	
Juan-Carlos Villagran **UNOOSA**	*The use of satellite technologies for observation and communication of extreme and slow onset events*
Capacity Building	
Simon Eggleston **GCOS**	*GCOS Climate Monitoring: Examples of recent performance monitoring statistics for climate observations*
Tim Oakley **GCOS**	*Capacity Development: The GCOS Cooperation Mechanism – practical support for Parties to improve their observations through equipment, people and communications*
Global Stocktake	
Simon Eggleston **GCOS**	*How climate observations will play a role in the global stocktake*

Abbreviations:
CEOS = Committee on Earth Observation Satellites; CORDEX = Coordinated Regional climate Downscaling Experiment; ESA = European Space Agency; GCOS = Global Climate Observing System; GEO = Group on Earth Observations; GOFC—GOLD = Global Observation for Forest Cover and Land Dynamics; ICOS = Integrated Carbon Observation System; LEG = Least Developed Countries Expert Group; UNDP = United Nations Development Programme; UNESCO—IOC = Intergovernmental Oceanographic Commission of UNESCO; UNOOSA = United Nations Office for Outer Space Affairs; WCRP = World Climate Research Programme; WMO = World Meteorological Organization