



The WCRP Conference for Latin America and the Caribbean: Developing, linking, and applying climate knowledge



Venue: LATU – Laboratorio Tecnológico del Uruguay, Carrasco
Montevideo, Uruguay on 17-21 March, 2014

<http://www.cima.fcen.uba.ar/WCRP/>

Motivation for a WCRP Conference for Latin America and the Caribbean

During the last WCRP-Open Science Conference, Oct 2011, it was acknowledged that *the climate research community is facing a complex challenge that involves:*

- Improving our knowledge on the climate system, the interactions among its components and the limits of predictability,
- Enhancing our ability to interact with other disciplines, particularly decision makers and social scientists in order to translate basic climate knowledge into “actionable” science.

In this context, the JSC asked CLIVAR/VAMOS panel to initiate actions towards organizing a ***Latin American and Caribbean Conference on Climate and Society*** with the objective of identifying new research priorities for a **new regional initiative** within the WCRP structure.

WCRP Conference for Latin America and the Caribbean <i>Developing, Linking, and Applying Climate Knowledge</i> Scientific Science Committee			Social Sci/Applications
			Boundary
			Physical Sci
Celeste Saulo	Argentina	Co-chair	Surface-atmosphere interactions and short to medium range predictability over South America
Walter Baethgen	Uruguay/ USA	Co-chair	Improve climate risk assessment and risk management in agriculture, health, water resources, and natural ecosystems
Carlos Ereño	Argentina	Coordinator	
Roberta Boscolo	Italy	WCRP liaison	
Fernanda Zermoglio	Chile		Climate change adaptation and communications ; development and deployment of pragmatic tools that will aid decision-makers in evaluating the impacts of climate change on vulnerable systems
Sandro Schlindwein	Brazil		Dynamics of land use change and the evaluation of the quality of land use, adaptation to climate change
Holm Tiessen	IAI-Int		Nutrient availability and cycling in natural and agricultural ecosystems. Carbon cycling, and soil organic matter turnover and stabilization
Carolina Vera	Argentina	JSC liaison	Climate variability and change over South America
Hugo Berbery	USA	Int. CLIVAR liaison	Regional climate modeling, land surface-atmosphere interactions, influences of land cover changes on regional climate and extreme events
René Garreaud	Chile	GEWEX liaison	Climate Dynamics and Meteorology, with emphasis on the western coast of South America, Atmosphere-Andes interactions, and extratropical synoptic meteorology
Michael Taylor	Jamaica		Mechanisms that drive climate variability within the Caribbean, and climate change
Rodney Martinez	Ecuador	CIIFEN	CIIFEN Scientific Coordinator, WCRP JSC member
Germán Poveda	Colombia		Hydro-climatic variability and change in tropical South America, and their effects on diverse sectors including human health, water resources, hydrological extremes, agriculture, and hydropower generation
Marcelo Barreiro	Uruguay		Ocean – Atmospheric Interactions and Climate Variability

Concept document

The *LAC Conference* aimed at **defining the research agenda needed to support the provision of effective, problem-oriented and demand-driven climate services.**

This necessarily required a balance between

- (i) **research focused on improving climate monitoring and predictions** at regional and local scales;
- (ii) **research oriented by the demands of socio-economic sectors** sensitive to climate, and
- (iii) **research on the process of informing policy and decision-making** in the different socioeconomic sectors.

**Kick Off Meeting of the
Scientific Steering Committee (SSC) of the LAC Conf
4-5 March 2013, Buenos Aires, Argentina**

The kick off meeting identified four thematic areas prioritized by the Global Framework for Climate Services: **water, disaster risk reduction, food security/agriculture and health.**

A list of main themes was agreed, with the common view on climate services for:

- **Water & Energy**
- **Agriculture and Ecosystems**
- **Human Health**
- **Coastal zones**
- **Urban environments**

And a final wrap up general theme on:

- **Climate prediction and predictability in LA&C**

The conference was organized under the auspices of WCRP, with support from Inter-American Development Bank (IDB), the Inter-American Institute for Global Change Research (IAI), and a number of regional and local organizations.



About 220 scientists coming from 19 countries of the Americas and around the world attended the Conference.

Goals of the Conference and Themes

Identify gaps and ways to overcome limitations in the chain of knowledge going from basic to applied climate science and to inform policy and decisions.

Build interdisciplinary capacity, fostering the participation of decision and policy makers, climate and social scientists and key intermediary institutions.

Contribute to further develop the emerging provision of regional Climate Services.

Main outcomes of the Conference were highlighted through a set of position papers and a summary of outcomes and recommendations (available in LACC's web page)

Position Papers

- Climate Services *by Roger Pulwarty*
- Human Health *by Kristie L. Ebi*
- Water Management in a Changing Climate *by Soroosh Sorooshian and Nasrin Nasrollahi*
- Agriculture and Natural Ecosystems *by Walter E. Baethgen*
- Coastal environments *by Claudia Simionato, Rodney Martinez and Eric Alfaro*
- Climate Monitoring and Prediction *by C. Roberto Mechoso*

Summary of outcomes and recommendations

Needs and challenges	Actions
Better understanding of climate drivers in LAC, with emphasis on those that could increase current levels of predictability from subseasonal to decadal time scales	12
Improve understanding and assess predictability of climate extreme events	4
Better monitoring climate – including extreme events – and climate drivers and access to climate information	5
Define Coastal-Climate Services	2
Better synergy between WCRP global initiatives and regional activities	2
Develop knowledge networks adequate for co-exploration and co-production	5

Needs and challenges	Actions
Better synergy between WCRP global initiatives and other relevant regional/global activities	Agree to establish a structure to coordinate the climate research activities in the region. Establish linkages with WCRP and related programs, groups and institutions in the region, such as: CLIVAR/GEWEX Monsoons Panel, WCRP WG on Regional Climate, WCRP CORDEX, GFCS, Future Earth, UNEP-PROVIA, IAI, ICSU-ROLAC.

Incorporate application and social scientists as equal partners with natural scientists from the start in order to provide effective climate services

Services

Operational Centers, Climate Information Providers

Researchers

Natural, Social, Health, Agriculture Impact Community

Production Sector

National Organizations of producers, Users

Hydrology

Rainfall and river predictions, soil processes Hydropower

Decision takers

Emergency Response Agencies, Local and Central Governments

WMO Centers structure, Regional climate Centers, Data organization, Data dissemination

The LACC Science Committee

- ✓ Encourages the LAC scientists to explore, and to establish as appropriate, new continent-wide structures to facilitate the development of the identified research priorities
- ✓ This activity would seek the input and endorsement of the wider South American research communities engaged in climate research, and include the VIA and climate services communities.

Future Plans (1)

- The next step toward establishing such structures as may be needed, would be best facilitated by a dialogue between representatives of the active continental research communities in climate, climate impacts, and climate services.
- The purposes of such a dialogue would be to explore the strategic collaborative opportunities, and to formulate a collective way forward that could include concrete proposals to the WCRP and/or other international or continental bodies for endorsement and/or formal support.

Future Plans (2)

- The WCRP Working Group on Regional Climate has offered to facilitate the establishment of this dialogue event
- This event has been tentatively set before the end of the year at the Headquarters of the Met Service of Argentina