



Mission

To promote, complement, and start scientific and application research projects, necessary to improve the comprehension and early warning of El Niño Event, and the climate variability at regional scale in order to contribute in the reduction of their social and economical impacts and generate a solid base to promote sustainable development policies when facing new climate scenarios.

Vision

A modern Research Center, addressed to the reduction of disasters caused by El Niño and Climate Variability. Liable to generate with the assistance of technology different scientific networks at regional and extra regional level, generate applied knowledge to improve an early warning to prevent and plan ways to help the most vulnerable populated settlements by contributing with its human development

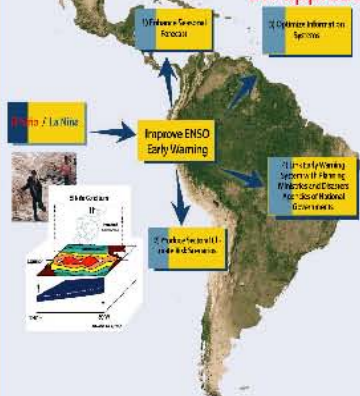
Our History

In response to United Nations General Assembly Resolution 52/200 on international cooperation to reduce the impact of the El Niño phenomenon, the 1998 Declaration of Guayaquil called for "immediate action to assess the feasibility of establishing an international centre for the research of the El Niño / Southern Oscillation (ENSO)".

Subsequently, the United Nations General Assembly adopted Resolutions 53/185, 54/220, 55/197 and 56/194 and ECOSOC adopted Resolutions 1999/46 and 2000/33 on international cooperation to reduce the impact of the El Niño phenomenon through an inter-agency mechanism based in Guayaquil that started operations on January 2003.

CIIFEN is currently sponsored by: the World Meteorological Organization (WMO), the International Strategy for Disaster Reduction (ISDR), the Government of Ecuador, the Government of Spain and the Permanent Commission of South East Pacific (CPPS).

CIIFEN Regional climate EW approach



Project proposal: "Climate Observation Network for Early Warning Systems related with Climate Extremes in Western South America"

Regional Observation Network



Background and motivation

In recent decades, climate extremes and climate variability have resulted in increasingly noticeable impacts on societies in countries throughout the world. Hyogo Framework for Action 2005-2015 establish: "Promote the integration of risk reduction associated with existing climate variability and future climate change into strategies for the reduction of disaster risk and adaptation to climate change.

The Western side of South America Climate is highly modulated by two geographical facts, the Andean cordillera and the Pacific Ocean. One of the strongest drivers on climate is El Niño/La Niña, as well as other signals that cause extreme events in this region and are not well understood nor included in current weather and climate forecast.

Human development of the region is strongly related with the occurrence of extreme climate events that affect crops, water resources availability, tropical diseases spread, fisheries, energy and other sectors.

To develop an effective EWS in the region related with the climate-related risks it is necessary to set some previous components, some of the most important of them are a climate related observation network, a regional climate data base and suitable climate products focused on most vulnerable users.

Objectives / expected Impact

First objective: To consolidate the existent climate observation network at the Andean region. The Global Climate Observing System (GCOS), sponsored by WMO, IOC, UNEP and ICSU, has a Regional Action Plan for South America which requires to cover zones of complex topography where El Niño/La Niña events have a high impact. A review of older meteorological networks is needed to validate data and detect time or spatial gaps. This implies a strong cooperative effort. The expected output from this component will be the provision of high quality climate data supported by a standardized and well distributed climate observation network in the region.

Second objective: To generate climate information in the Region based on high quality products as an essential component of a EWS. This process includes: the assurance of high quality control of climate data, a prospective of the characteristics on each sub-region and the development of regional and sub-regional products tuning adequately the EWS. The expected outputs are a data base accessed by web, and focused sectorial climate products.

Third objective: To develop an EWS that benefit from the full potential of climate products, combining sectorial applications, risk assessment and information management at different users levels.

Expected impact: Improved cooperation and coordination between Meteorological and Civil Protection institutions, optimized results, developed products useful for prevention on sectors like water management, health, agriculture, energy, decreased socio economical impacts in six Andean countries.

Planned Activities

In general terms the main planned activities are:

- Assessment of GCOS South America network to define observational needs on sensible zones to climate extreme events.
- Climate networking design and implementation.
- Climate data retrieval.
- Quality control of climate data.
- Training on climate data management.
- Regional climate data base implementation
- Development of regional climate products and Climate Change indicators.
- Development of a protected web based system to interrelate climate databases.
- Strengthening of the institutional framework at regional, bi national and national level.
- Training and involvement of the users on climate products design as a part of the construction of a EWS in climate extreme hazards.
- Development of an EWS for Andean Community of Nations from climate information.

Implementing agencies

- Organizations that will work on the project are:
- + International Research Center on El Niño - **CIIFEN**
 - + Servicio Meteorológico de Venezuela - **VENEZUELA**
 - + Instituto de Hidrología, Meteorología y Estudios Ambientales, (IDEAM) - **COLOMBIA**
 - + Instituto Nacional de Hidrología y Meteorología del Ecuador (INAMHI) - **ECUADOR**
 - + Servicio Nacional de Meteorología e Hidrología del Perú (SENAMHI) - **PERÚ**
 - + Servicio Nacional de Meteorología e Hidrología de Bolivia (SENAMHI) - **BOLIVIA**
 - + Dirección Nacional de Meteorología de Chile (DMCh) - **CHILE**
 - + Instituto Nacional de Meteorología (INM) de España. - **ESPAÑA**

Climate products consolidation



Climate early warning System



Budget

Three years duration (2006 - 2009). A total fund of \$1.600.000 is needed.

Contact Us

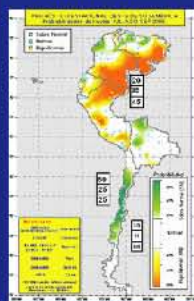
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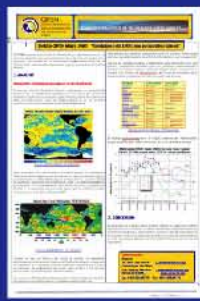
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Seasonal Forecast



CIIFEN BULLETIN



Climate Agriculture risks map



Health Climate Information on system

