Regional Activities of CIIFEN

CIIFEN

Rodney Martínez Güingla
r.martinez@ciifen.org

CIIFEN

Regional Activities

Centro Internacional para la Investigación del Fenómeno de El Niño

WCSA Regional Climate Data Base

- **First Data integration** between NMHS from Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela .
- **Online** data display.
- **4'153.000** records .
- **171** meteorological stations with data from **1960 to 2009**.
- Formal **Protocol** signed by the 6 NMHS and CIIFEN

First regional effort , limitations on QC and coordinated homogenization and analysis (2007-2009)

Improving Climate Modeling capacities in WCSA

Regional Training Workshops

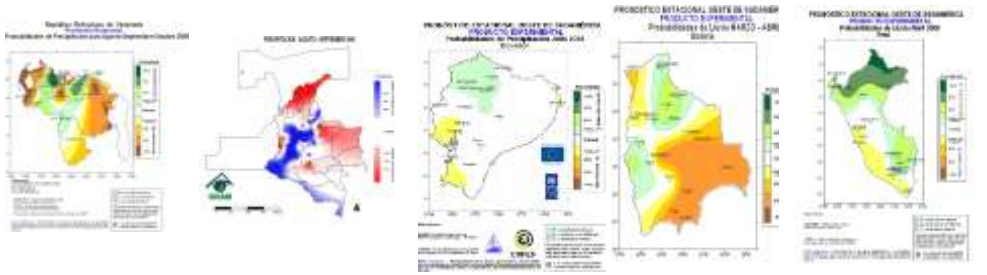
Implementation of Statistical and Dinamic Models for Climate Prediction at NMHSs in the WCSA Region

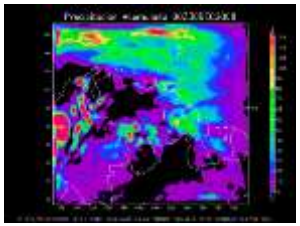
Statistical Regional Training Workshop. Maracay-Venezuela, October2007.

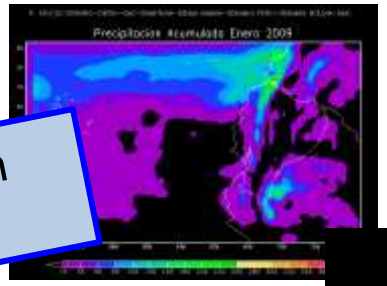
Numerical Modeling Regional Training Workshop. Guayaquil-Ecuador, May 2008

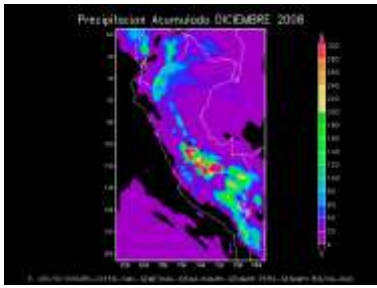
Dinamic Modeling Regional Training Workshop. Lima-Peru, November 2007.

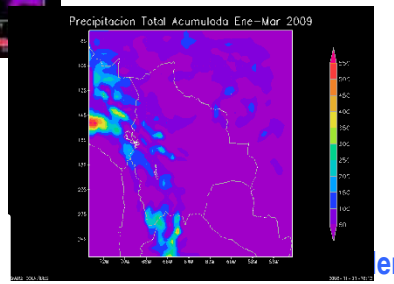
More than 150 experts from the region have been trained since 2005.

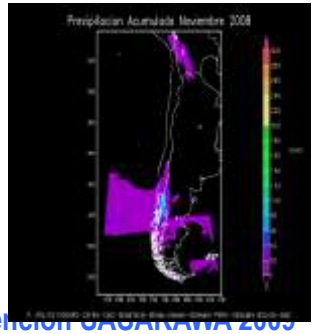












Guayaquil, Ecuador 22 -23 October, 2008

'The Science of models for development'.

19 countries, 52 participants,

from 17 Meteorological Services

NOAA, IRI, CPTEC, CMC and CIIFEN.

CIIFEN

Taller Iberoamericano de Predicción Estacional

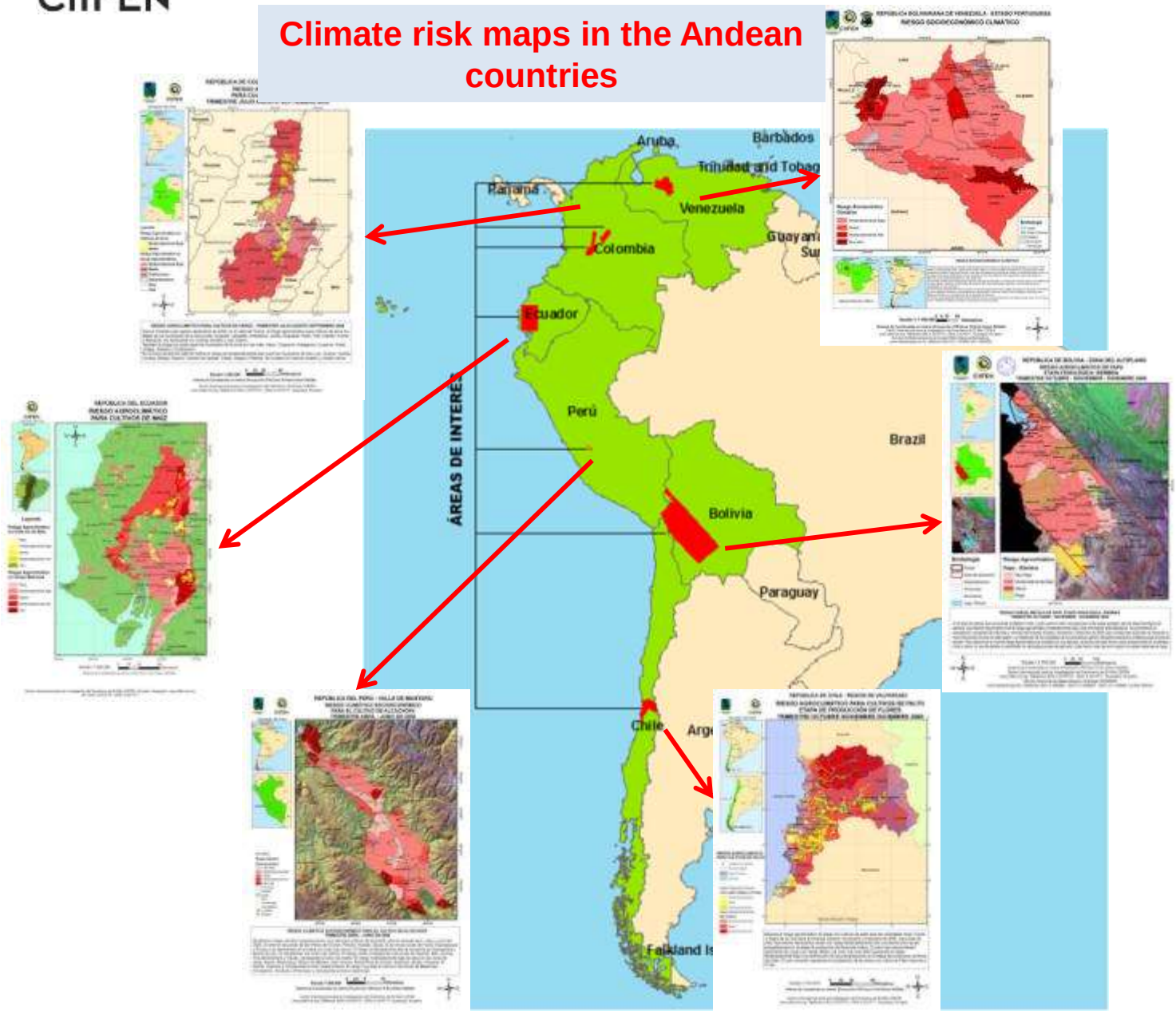
TIPE

"La ciencia de los modelos al servicio del desarrollo"

22-23 Octubre 2008

Guayaquil - Ecuador

Climate risk maps in the Andean countries



CIIFEN

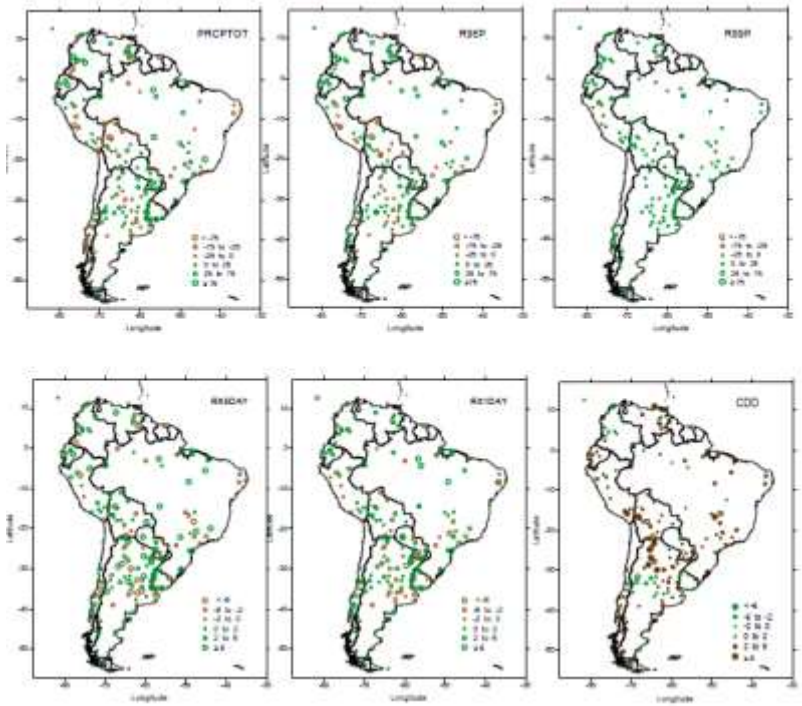
Regional Action Plan for the Analysis of climate extremes in South America
(Guayaquil, Ecuador , January 2011)

NMHSs in 11 countries,> 307 stations

CIIFEN

REGIONAL ACTION PLAN
(Guayaquil, Ecuador January 2011)

"Warming and wetting signals emerging from analysis of changes in climate extreme indices over South Ameri



María de los Milagros Skansi [1], Manola Brunet[2, 3], Javier Sigró[2], Enric Aguilar[2], Juan Andrés Arevalo Groening[4], Oscar J. Bentancur[5], Yaruska Rosa Castellón Geier[6], Ruth Leonor Correa Amaya[7], Homero Jácome[8], Andrea Malheiros Ramos[9, 10], Clara Oria Rojas[11], Alejandro Max Pasten[12], Sukarni Sallons Mitro[13], Claudia Villaroel Jiménez[14], Rodney Martínez[15], Lisa V. Alexander[16], and P.D. Jones[3, 17]

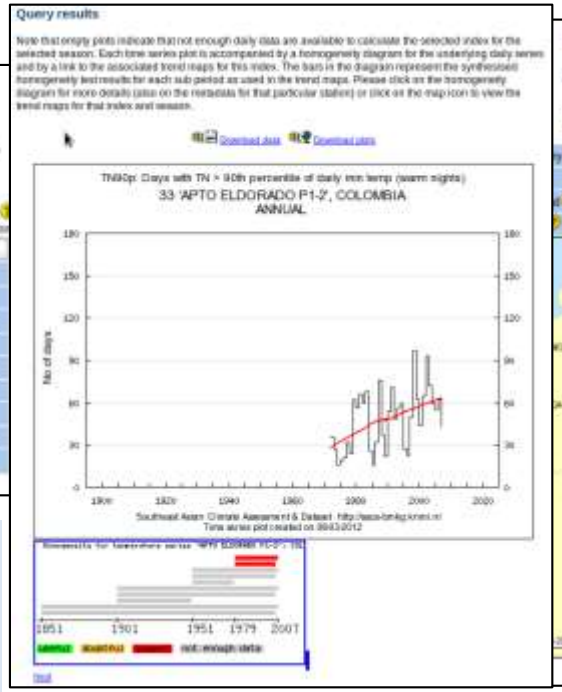
NMHSs from 11 countries, > 307 stations

Referenced in IPCC AR V !

WCSA Climate Assessment & Dataset interface

MCIH Data Management

Platform display provided by KNMI



Daily Data Query,
Data and Extremes Indices Query.
Custom query in ASCII and Download.
Maps: trends, climatology and anomalies.

Basic steps for the regional analysis

- Coordination with a regional organization. CIIFEN in this case which is now a designated RCC.
- Necessary support of relevant experts from the region and outside the region.
- Necessary coordination with WMO, ETCCDI and CCl relevant OPACEs.
- Design of the regional analysis one year in advance. The workshop should have three phases:

-Preparatory phase:

- Invitation to participants at least three months in advance if possible.
- Quick designation of participants in order to create an e-mail list and start contacting through RCC or equivalent regional institution.
- Data preparation instructions due coordinated with the trainers and potential other experts to be involved.
- Pre analysis of data, download of routines, relevant software, and refence bibliography.
- The final objective is to have the data ready or close BEFORE the workshop.

II Phase: the workshop

- The efficiency of the workshop is optimized if data from participants has been adequately revised in advance to detect lack of data, significant inhomogeneities and other problems.
- A temporal data base should be created and be available at the start of the workshop.
- If this is done, the training can cover not only QC, homogenization and other processing but in addition the opportunity to analyze the data in a regional context and in the borders with neighbors.
- Important to have the presence of regional expert that can help with the translation and technical issues.
- It is very important to set up some time for discussion on regional priorities, needs and opportunities.
- A final planning session should be fixed to work on a regional action plan with specific responsibilities and the designation of a group of regional experts to work in the next phase in the regional analysis.
- This group should be supported by other experts (ETCCDI, CCl others).
- One year time frame could be ambitious but is very pragmatic.

III Phase: Post workshop

• Formal acceptance and endorsement of Regional action plan is needed (should be coordinated by RCC.
• The letter should request to PRs the necessary support and designated work time for national experts in each NMHS.
•Follow up of agreement from RCC or equivalent institution strongly required.
• Regular contact with all the group and experts to ensure progress.
• To identify the NMHS(s) with more difficulties to ensure a prompt assistance.
• The lead experts must have experience in climate data analysis and scientific writing.
• The final outcomes are:

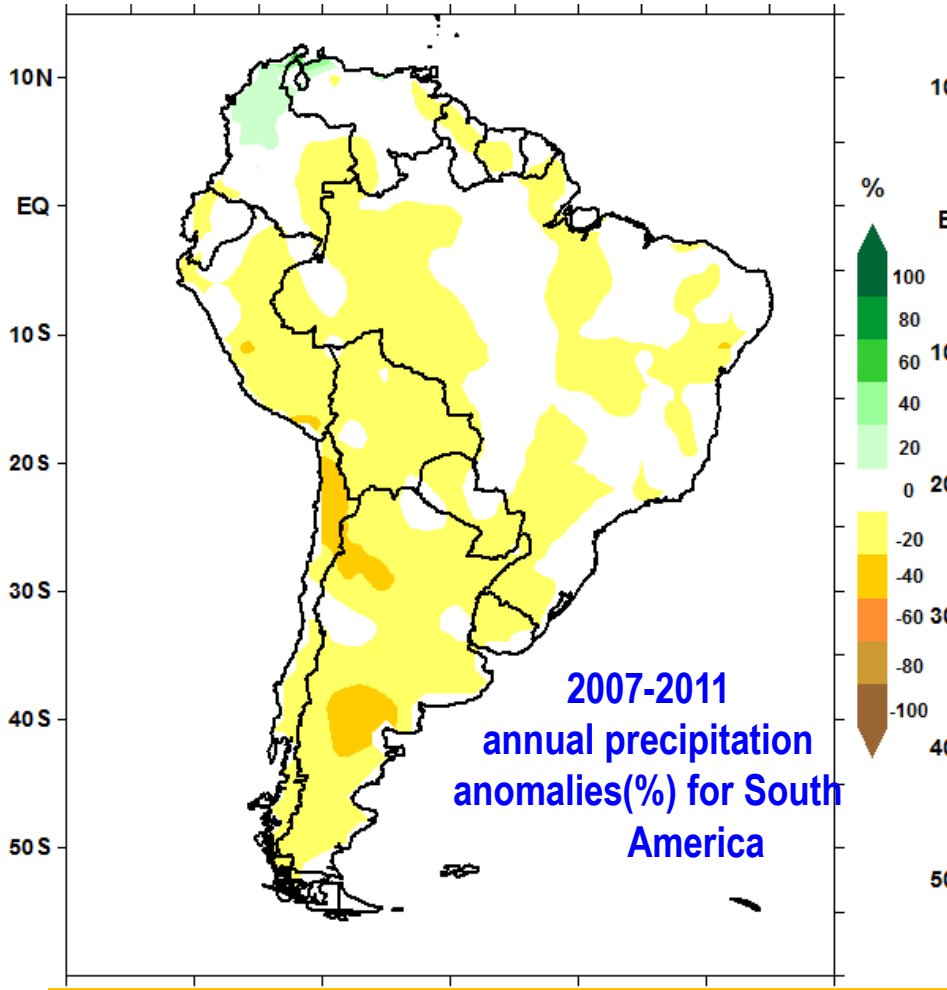
1) A high QC and homogenized data base for each NMHS.
2) A regional data base of selected stations.
3) A first paper co authored by all the participants on climate data analysis and extremes.
4) More papers could be produced, depending of the availability of exterts to lead the papers.
5) It is important to have a back up of the data which can be freely exchangeable, after this process.

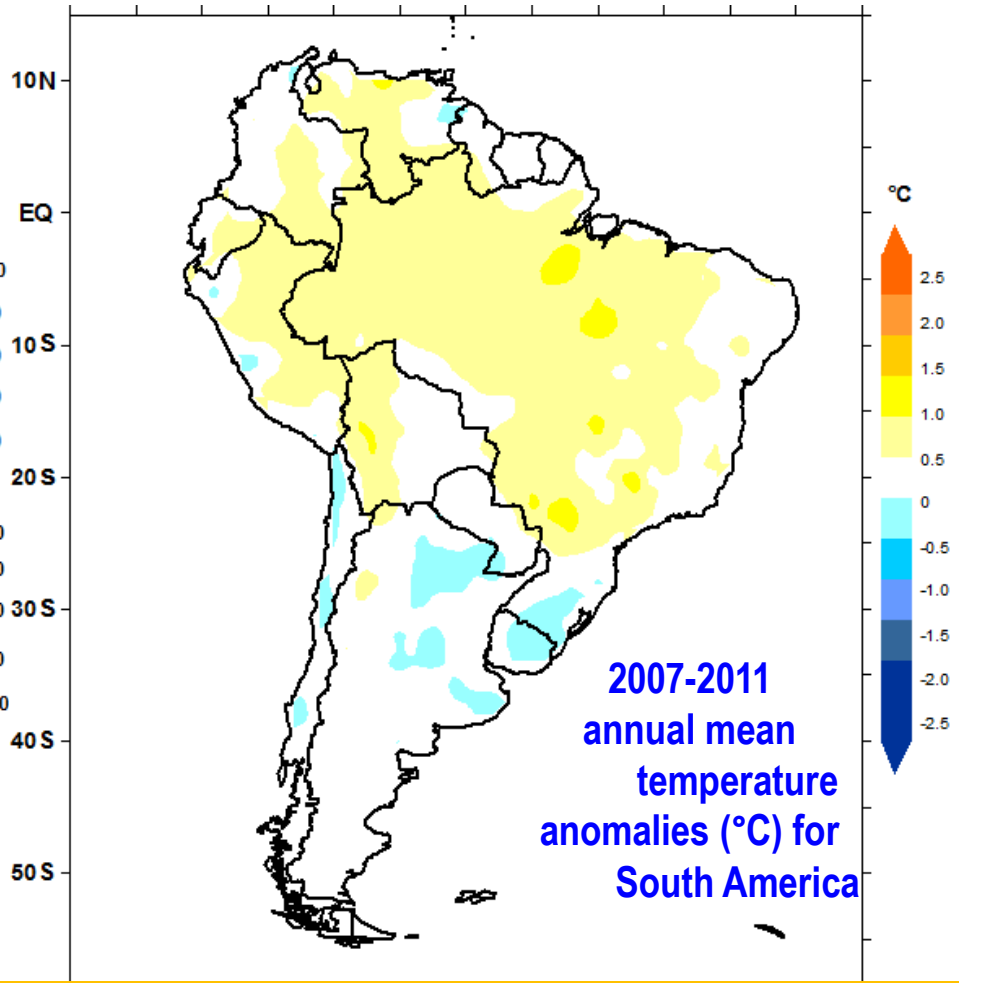
LESSONS LEARNT

- Regional analysis derived of local data are increasingly crucial.
- The workshop is only an intermediate stage of the regional process. It is not the final goal.
- This process require international cooperation and a strong effort on regional coordination, then the designation of the regional institution is crucial.
- The post workshop stage is critical to ensure a efficient workshop and maximize the benefit of all the participants with the training and future outcomes.
- Data exchange is essential during all the process.

CIIFEN

Contribution of South America to BAMS: State of the Climate since 2005 to date

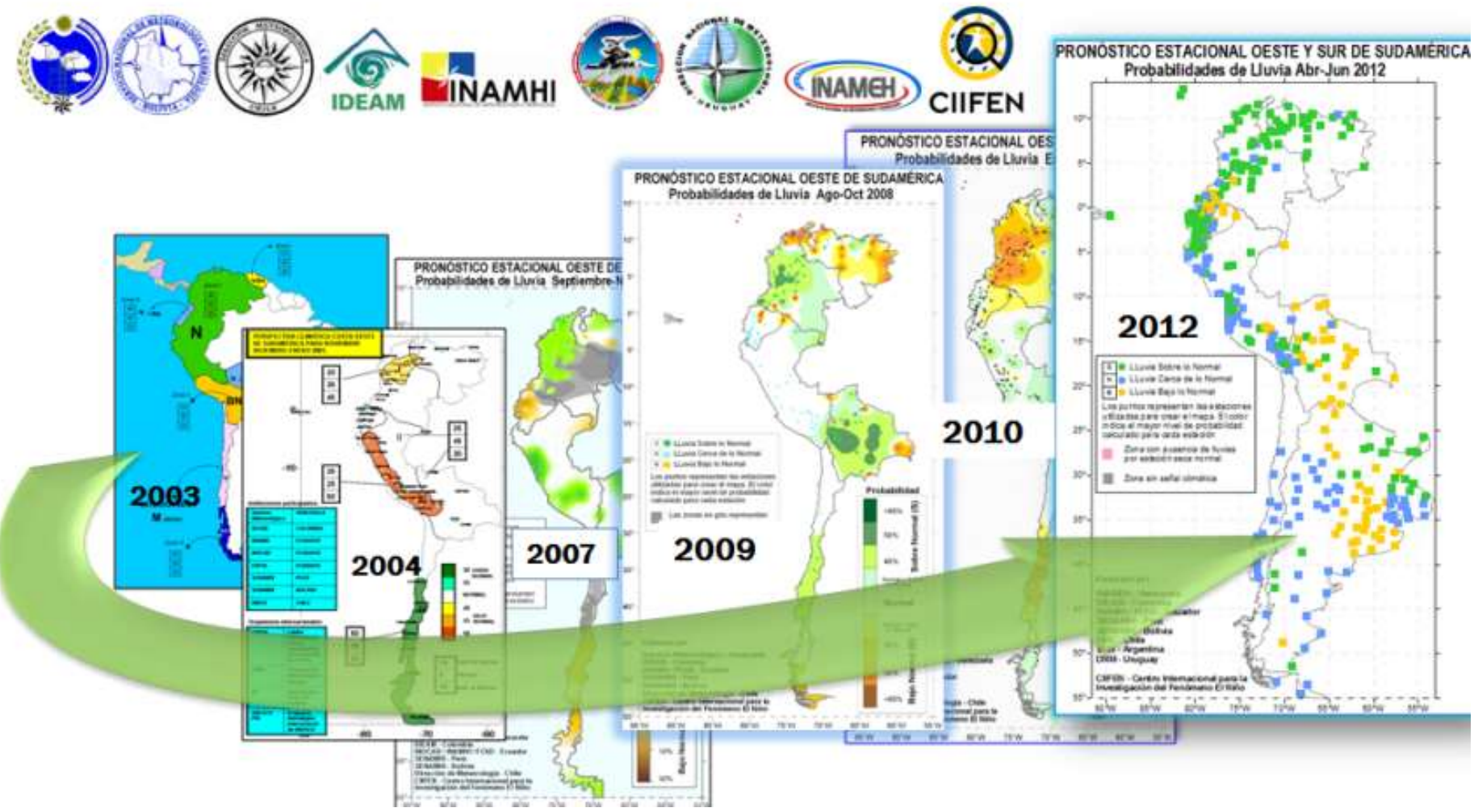




(1971–2000 base period). (Sources: National Meteorological Services of Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Paraguay, Peru, Suriname, Uruguay, and Venezuela. The data was compiled and processed by CIIFEN, 2011.)

CIIFEN

Seasonal Forecast Evolution in West and South South America



Workshop on Climate Data Homogenization and Regionalization

Antigua-Guatemala. October 15th-19th 2012

AGREEMENTS

- **To adopt a Regional Work Plan aimed to perform a guided homogenization and regionalization of climate data stations in Central America, Colombia, Venezuela, Republica Dominicana, Cuba and Mexico.**
- **To obtain an homogenized grid for the region**
- **To develop a reviewed publication**

PLAN DE ACCION HOMOGENIZACIÓN	PLAZO
Conformación de Grupo Regional de Expertos	Finales de Octubre 2012
Reporte de inventario de estaciones y definición de estaciones, longitud de registros, definir cuáles cuentan con control de calidad previo	Finales de Diciembre 2012
Definición de período de referencia común, variables de análisis	Finales de Diciembre 2012
Instalación de paquetes R y rutinas de homogeneización	Finales de Diciembre 2012
Preparar datos para utilizar CLIMATOL (Datos con control de calidad en lo posible)	Finales de Marzo 2013
Aplicación de CLIMATOL	Finales de Septiembre 2013
Análisis de resultados	Finales de Diciembre 2013
Definir publicación regional	Enero 2014

Mención SASAKAWA 2009

10 años CIIFEN

Lessons learned and some proposals

Lessons Learnt

- Regional initiatives have been supported by the interest of its members to the extent that what is done is of direct benefit.
- It has required a major effort of coordination and monitoring.
- The work of networks of institutions and experts also provides a forum for coordination and consensus building on issues of regional or subregional.
- Reduction of asymmetries between countries, optimizing existing regional capacities.
- Diversification of sources of financial and technical support.
- Specific objectives and feasible as a result of the Action Plans.