WORLD METEOROLOGICAL ORGANIZATION

REGIONAL CLIMATE CENTRE NETWORK SOUTHERN SOUTH AMERICA

The WMO Regional Climate Centre Network for Southern South America (RCC Network SSA) covers South America between 10° S and 55° S, including Argentina, the Plurinational State of Bolivia, Brazil, Chile, Paraguay and Uruguay. The Network is jointly coordinated by the National Meteorological and Hydrological Services (NMHSs) of Argentina and Brazil.

Leads:

- Argentina – Servicio Meteorológico Nacional (SMN)
- Brazil – Instituto Nacional de Meteorología (INMET)

Consortium members:

- Bolivia (Plurinational State of) – Servicio Nacional de Meteorología e Hidrología de Bolivia (SENAMHI)
- Chile – Dirección Meteorológica de Chile (DMC)
- Paraguay – Dirección de Meteorología e Hidrología de Paraguay (DMH)
- Uruguay – Instituto Uruguayo de Meteorología (INUMET)

Linkage with WMO Global Producing Centres

The RCC Network SSA uses climate products from the WMO Lead Centre for Seasonal Prediction Multi-Model Ensembles, integrating them in monthly discussions and reporting.

Linkage with WMO Regional Climate Outlook Fora

The Network actively contributes to the Southeast of South America Climate Outlook Forum (SSACOF).

Mandatory functions

All WMO RCCs fulfill a set of mandatory functions related to seasonal prediction, climate monitoring, data services and training. Listed below are those performed by RCC Network SSA.

Seasonal prediction – Precipitation and temperature predictions are provided using ClimaX and the Climate Predictability Tool (CPT):

- CPT forecasts are based on the calibration of North American Multi-Model Ensemble (NMME) forecasts and European Centre for Medium-Range Weather Forecasts
- ClimaX forecasts are based on the calibration of NMME forecasts

The SSACOF consensus statement is also updated every month.

OVERVIEW

Domain of responsibility: Southern South America

Languages: Spanish, English and Portuguese

Status:

- Demonstration phase initiated: May 2014
- Designation by WMO: May 2017

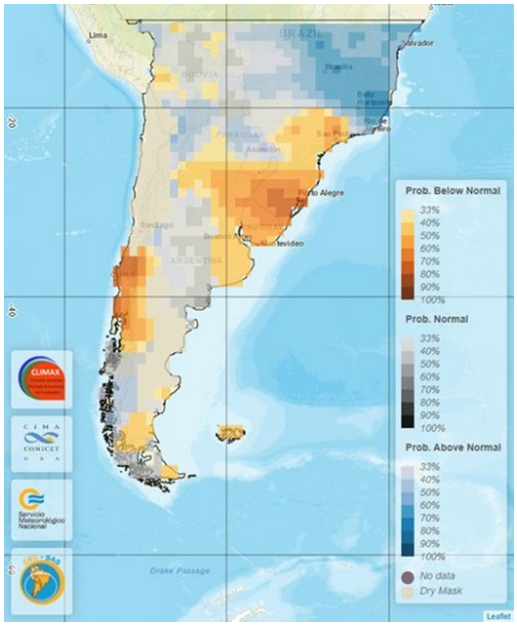
Climate features

The region is characterized by diverse geographical features, namely the Andes mountain range that stretches along the west coast of South America, the Amazon rainforest and desert regions such as the Atacama Desert in northern Chile.

The regional atmospheric circulation over South America is governed by the Bolivian high, the Chaco low and the South Atlantic Convergence Zone (SACZ).

The main drivers of the rainfall pattern in the region are the El Niño Southern Oscillation (ENSO), the Madden-Julian Oscillation (MJO) and the Indian Ocean Dipole.

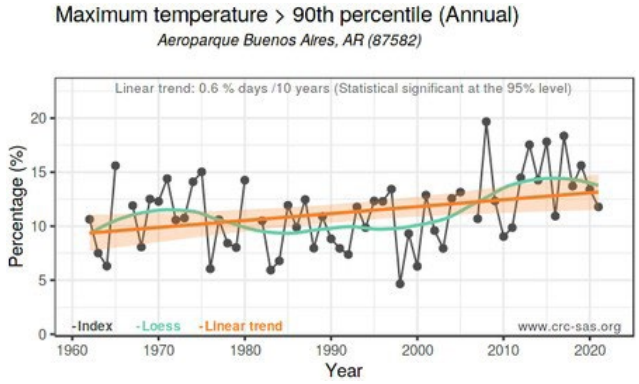
Social media



Probabilistic precipitation prediction for October to December 2022 issued in September 2022

Climate monitoring

- Daily and monthly precipitation totals and anomaly
- Monthly and seasonal mean, minimum and maximum temperature
- Highest and lowest observed temperature
- Daily rainfall amount and temperature for selected cities
- Climate extreme indices for selected stations
- El Niño/La Niña information
- Vegetation indices
- Special reports and bulletins



Annual percentage of days when maximum temperature is greater than the 90th percentile, in Buenos Aires airport, Argentina

Data services

- Weather station data with related metadata
- Daily records of in situ observations of different meteorological variables
- Drought indices
- Normalized Difference Vegetation Index (NDVI) and Enhanced Vegetation Index (EDI)
- Precipitation estimates by combining satellite and in situ data
- 15-day precipitation and drought forecasts
- Evaporative Stress Index and derived percentiles

Training

- Workshop on techniques for the homogenization of climate data and use of indices for drought monitoring
- Workshop on quality control, validation and manual correction of daily climate records and calculation of various drought indices
- Workshop on seasonal prediction products for the RCC Network SSA
- Workshop on sub-seasonal prediction
- Regional workshop on climate services in Latin America
- Workshop on developing a drought monitoring, early warning and mitigation system for South America
- Training workshop on climate forecasts using multivariate regression and verification

Success story

The Drought Information System for Southern South America provides data and information on droughts to allow governments, non-governmental agencies, private institutions, and individuals to mitigate and reduce related impacts through preparation and planning, improved monitoring and better prediction.