

Current status of operations of RCOF RA IV: Central America Climate Outlook Forum (CACOF)

Berta A. Olmedo V.
Secretaría Ejecutiva

Comité Regional de Recursos Hidráulicos



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World Meteorological Organization
Organisation météorologique mondiale

**WMO International Workshop on Global
Review of Regional Climate Outlook
Forums, Ecuador, 5 – 7 September 2017**

What is the Regional Committee on Hydraulic Resources CRRH-SICA,,

The CRRH, for its acronym in Spanish, is a Technical Secretariat of SICA, specialized in fields of meteorology, climate, climate change, hydrology and water resources.

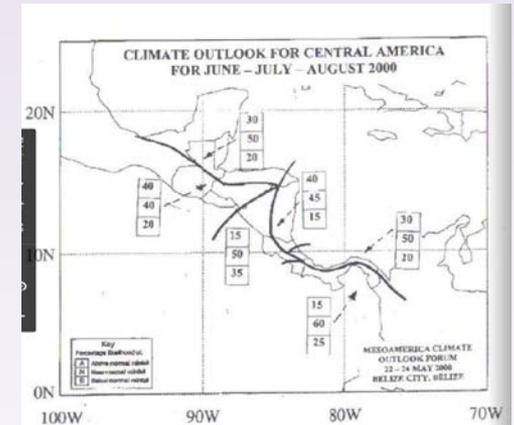
Its members are the Meteorological Services of: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama



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CACOF-coordinated by the CRRH-SICA

- The first CACOF is held on May 22, 2000, in Belize City.
- Coordinated by the Regional Committee of Hydraulic Resources (CRRH-SICA)
- With financial and expert support from the Office of Global Ocean and Atmospheric Administration Programs (NOAA / OGP)
- The last Forum was the LIII, held on the 18th and 19th in the city of Managua, Nicaragua. During this period, the seasonal forecast for the August-October 2017 trimester, coordinated by (CRRH-SICA) and financed by WMO and PROGRESAN-SICA. El primer CACOF se realiza el 22 de mayo de 2000, en la ciudad de Belice.



Methodologie of CACOF

CACOF members meet 3 times a year for two days. The Forum has previous activities and others that take place during the meeting.

Activities prior to the meeting:

- Calculation of the similar years, using the indicators of the ocean and the atmosphere, based on the correlation coefficient and the mean square deviation.
- Validation and verification of the Outlook of the previous quarter, with data from SMN stations and the BDCAC
- Running of the models:
- Statistical, CPT (with data from stations of the SMN's and BDCAC)
- Dynamic, SAMRE 3

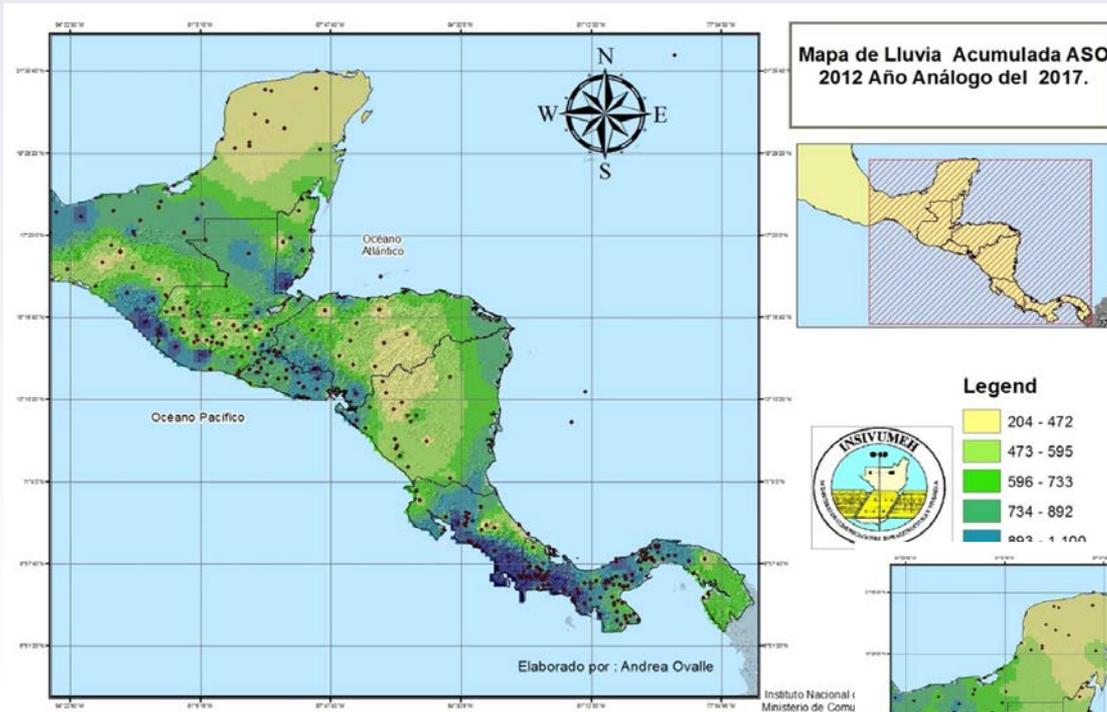
Activities during the meeting:

- Analysis of the current state and forecast of the indicators of the ocean and the atmosphere and their implication in the rain pattern of the region.
- Review and discussion on seasonal climate predictions derived from global and regional dynamic models.
- Discussion and analysis on the output of the statistical model and the dynamic model.
- Update activity is usually the presentation of the results of a research related to the seasonal forecast.

Database provided by NMS's



Similar years as an input for CACOF



Analysis of similar years using the Central American Climate Database (BDCAC), created with IDB funds.

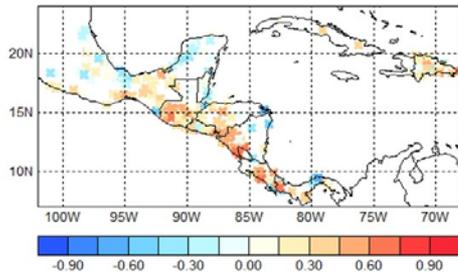


Tools used by CACOF

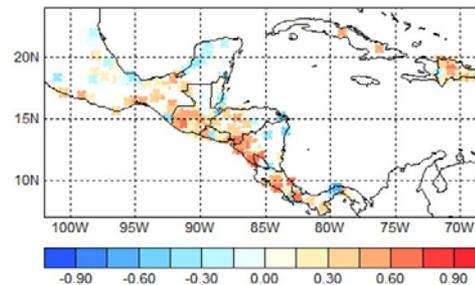
Use of CPT/IRI

1. Rain forecast
2. Forecats of SPI

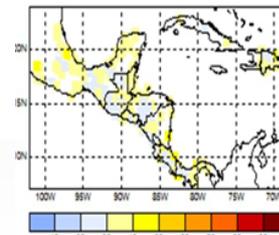
Correlation de Pearson



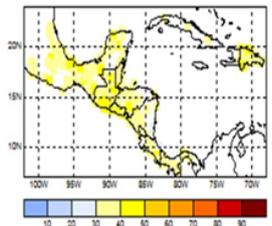
Correlation de Spearman



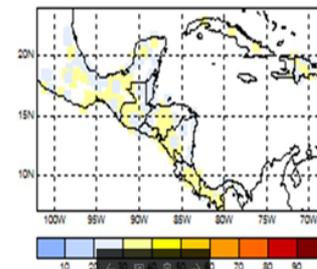
Bajo



Sobre



Normal



SAMRE 3, is a new dynamic modeling tool, appropriate to the region.

**SAUTOMATED NUMERICAL
MODELING SYSTEM BASED ON
THE MODEL WRF V 3.6 FED
WITH DATA OF CFS V.2 V.2**

- *Designed and managed by staff in the region*
- *6 Monthly simulations with a 3-month forecast.*



Prueba de rendimiento 7

Numero de dominios: 1
Resolución espacial: 15 km
Tiempo estimado de simulación para 1 mes: 1.5 días.
Tiempo estimado total de simulación: 15 días.
Area simulada:



This tool is run in a country of the region and is placed on the Centro Clima portal and is used as an input for CACOF.

It has been introduced in the region in support of USAID's Regional Climate Change Project, we have validated 3 perspectives and continue to validate other variables such as temperature and wind. It is only used as an input for the Perspective, not as a tool for making an objective forecast.

Home Centro Clima.



An interactive portal through which information is collected, published, shared and distributed to support decision making.

This portal was realized with the support of the Regional Program of Climatic Change, with funds of USAID, and is hosted in the CRRH.



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Rain forecast using CPT-IRI

Centro Clima

geonode.centroclima.org/layers/geonode%3Acpn1

INFO@CENTROCLIMA.ORG | f | t

INICIO | ACERCA DE NOSOTROS | HERRAMIENTAS | EXPLORAR | INVOLÚCRESE | ESCRITORIOS DE INFORMACIÓN

CAPAS | MAPAS | DOCUMENTOS | PERSONAS | GRUPOS | REGISTRARSE | INGRESAR

Pronóstico de Precipitación (CPT) Agosto-Octubre (ASO) 2017 NMME

Descargar Capa

Descargar metadatos

Legenda

- Sin datos
- 166.7 - 300.0 mm
- 300.1 - 500.0 mm
- 500.1 - 700.0 mm
- 700.1 a 900.0 mm
- 900.1 a 1,100.0 mm
- 1,100.1 a 1,300.0 mm
- 1,300.1 a 1,500.0 mm
- 1,500.1 a 1,700.0 mm
- 1,700.1 a 2,000.0 mm

Mapas que utilizan esta Capa

Esta capa no esta siendo usada en ningún mapa.

Título Pronóstico de Precipitación (CPT) Agosto-Octubre (ASO) 2017 NMME

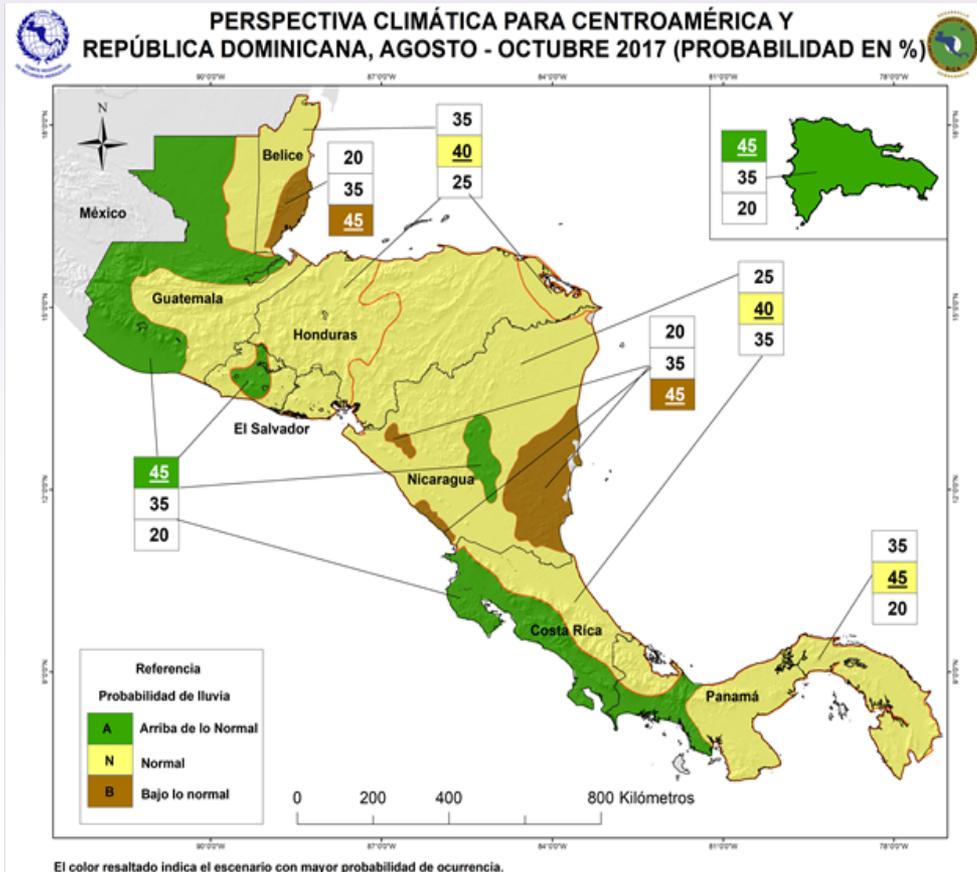
1:04 a. m. 4/9/2017

Forecast SPI, using CPT-IRI

The screenshot shows the 'Centro Clima' website interface. The main content area displays a map titled 'Pronóstico del Índice Estandarizado de Precipitación (SPI) Julio-Octubre (JA...)' with a legend on the right. A red circle highlights the 'Descargar Capa' button. The legend includes categories such as 'Sin datos', 'Excepcionalmente Seco', 'Extremadamente Seco', 'Severamente Seco', 'Moderadamente Seco', 'Anormalmente Seco', 'Normal', 'Anormalmente Humedo', 'Moderadamente Humedo', 'Muy Humedo', 'Extremadamente Humedo', and 'Excepcionalmente Humedo'. The website header includes navigation links like 'INICIO', 'ACERCA DE NOSOTROS', 'HERRAMIENTAS', 'EXPLORAR', 'INVOLÚCRESE', and 'ESCRITORIOS DE INFORMACIÓN'. The footer shows the Windows taskbar with the date 4/9/2017 and time 1:05 a. m.

It is placed to Centro Clima, where you can download the map in raster format.

Climate Outlook for Central America and the Dominican Republic



Finally, after analyzing all the information discussed above, a consensus perspective is generated. This is the image that accompanies the documents with the special considerations by country. The same is uploaded to the Centro Clima portal.

Climate Outlook, is placed in Climate Center in raster format.

The screenshot shows a web browser window displaying the 'Centro Clima' website. The URL is 'geonode.centroclima.org/layers/geonode%3Aperpectiva_aso_2017'. The page title is 'Perspectiva climática de Centroamérica ASO 2017'. The main content is a map of Central America and the Caribbean region, overlaid with a climate outlook map. The map shows three categories: 'Arriba de lo normal' (green), 'Bajo lo normal' (orange), and 'Normal' (yellow). The map is displayed on a Bing map interface. To the right of the map, there are buttons for 'Descargar Capa' and 'Descargar metadatos'. Below the map, there is a legend and a section titled 'Mapas que utilizan esta Capa' which lists 'Perspectiva Climática para Centroamérica, Cuba y República Dominicana ASO 2017'. At the bottom of the page, there is a section titled 'Crear un Mapa usando esta Capa' with instructions to click a button to generate a new map.

The Climate Outlook map is geo-referenced so it is also placed in raster format so it can be downloaded by users. This allows specialized users to generate other applications.

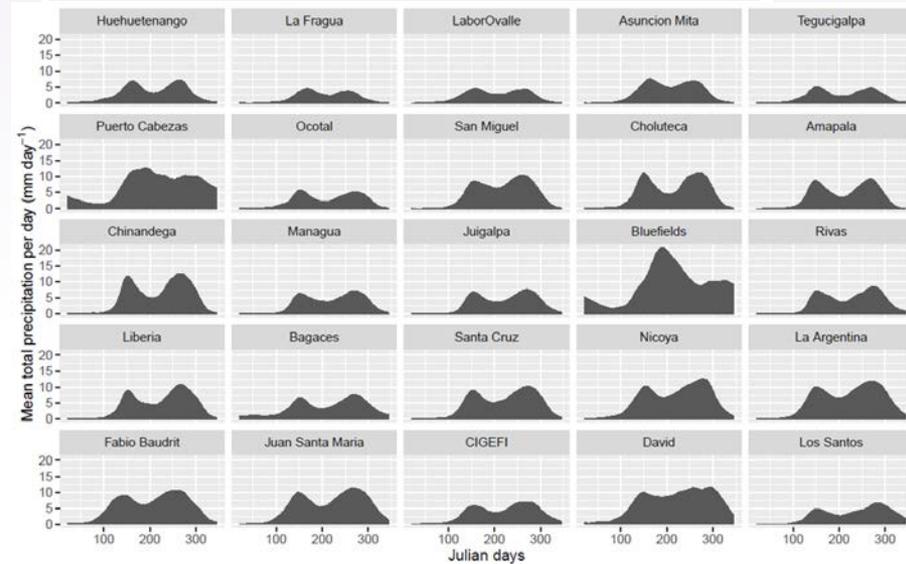
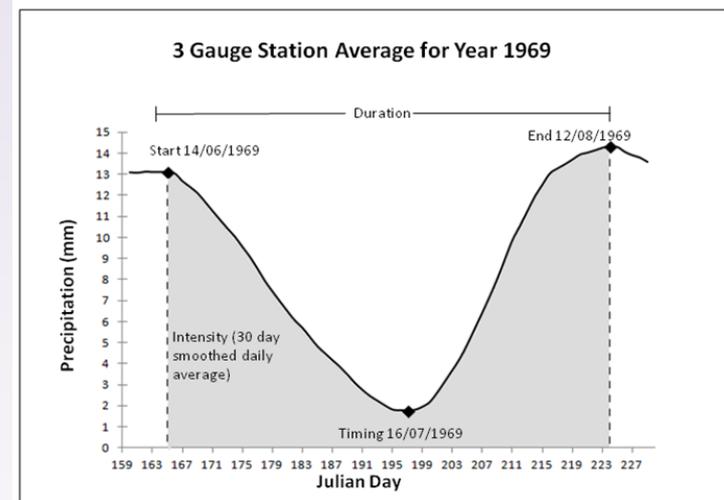
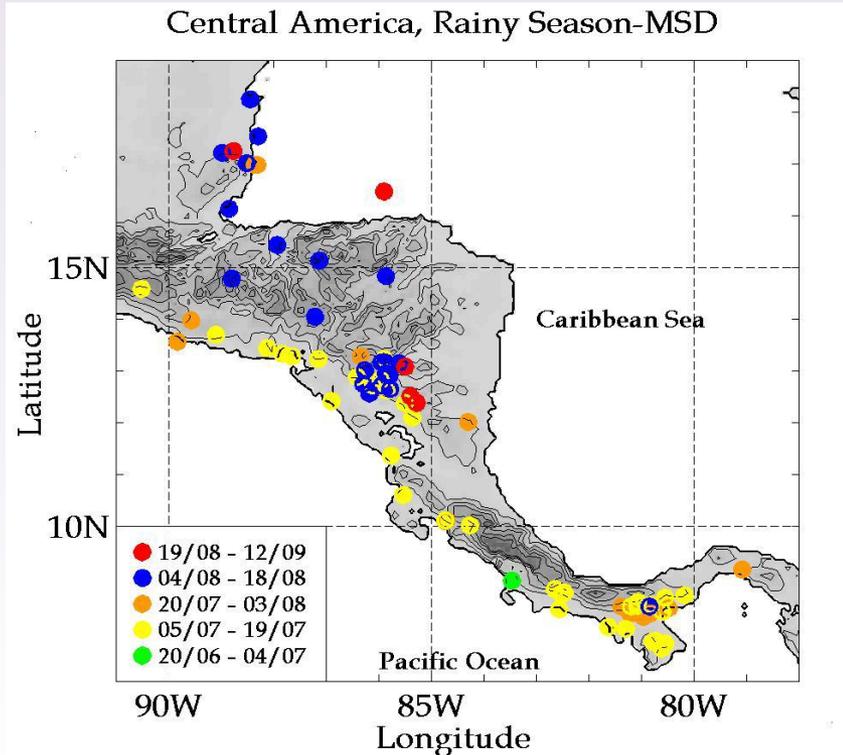
Group of experts supporting CACOF

The Climate Forum has a valuable network of organizations that with funding the realization of the face-to-face meetings, this has allowed the realization of 53 Perspectives in a consecutive way.

During these years, there have been many regional, extra-regional and cooperating organizations that have relied on information to be critical to reducing poverty in our region.

Universities have played an important role in generating new knowledge about the behavior of climate forcientists in America

Collaboration of Research Centers



Taking into account the need to generate new knowledge, the University of Costa Rica, has become a collaborator committed to issues of interest.

Forum Actions Foro de Aplicaciones

In 2007, the organization in charge of Food and Nutrition Security of the Central American Integration System (SICA), decided to add value to the Climate Outlook and start the Application Forums, this activity is done the day after the Climate Outlook.

The Forum of Applications brings together specialists in various sectors: agriculture, health and water for human consumption, Fisheries and Aquaculture, Plant Health, risk, among others.

At present, it has been possible to connect users in all countries in a virtual way, and an information exchange is carried out covering the behavior of the climate, effects on the different activities and recommendations to reduce the risk of losses in the sector.



XXXII FORO REGIONAL DE APLICACIÓN DE LOS PRONÓSTICOS CLIMÁTICOS A LA SEGURIDAD ALIMENTARIA Y NUTRICIONAL: PERSPECTIVAS PARA EL PERÍODO AGOSTO – OCTUBRE 2017

Informe preparado por:

Miembros del Foro Aplicaciones y expertos de los organismos especializados del Sistema de la Integración Centroamericana (SICA) vinculados con los diferentes sectores de la Seguridad Alimentaria y Nutricional, y por Miembros del Foro del Clima de América Central, meteorólogos e hidrólogos de la región.

Fortalezas y Retos del CACOF

Strengths

- Experts with knowledge of the climate of the region.
- Strong support from SMN's.
- Product expected by users.

Challenges

- Improve Perspective Accuracy
- Include other variables in the seasonal forecast
- Reach a greater number of usersRetos



Thanks for your attention

Gracias



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