SEASONAL FORECAST
SELVA MAYA REGION

Mexico, Guatemala and Belize

According to the results of the LXII Regional Climate Outlook for Central America in coordination with the Meteorological Services of Mexico, Guatemala and Belize, with the support of the Project "Promotion of monitoring of biodiversity and climate change in the Selva Maya region" of the German Cooperation Agency (GIZ), the probabilistic precipitation perspective for the Selva Maya region was prepared for the months of **August, September and October 2020**. Serving decision makers at different levels to have information on the seasonal climate perspective of the region.

SELVA MAYA REGION CLIMATOLOGY

The Climatology of accumulated precipitation for the period of August, September and October (ASO) refers to the accumulated average of precipitation from 1981 to 2010 during these months, recorded in the hybrid database Rainfall Estimates from Rain Graue and Satellite Observations (CHIRPS), which includes data from the satellite hydrosimulator combined with data from surface rainfall stations.

Figure 1 shows the average accumulated precipitation map of the 3 months (August, September and October), in which it can be observed that the highest accumulated rainfall during this period occurs in southern Belize, eastern Chiapas and north of Huehuetenango and Quiché, with values of more than 1000 mm, however this pattern of rainfall is decreasing to the north, that is, towards Yucatan where on average during this quarter the accumulated recorded precipitation is between 400 to 600 mm.

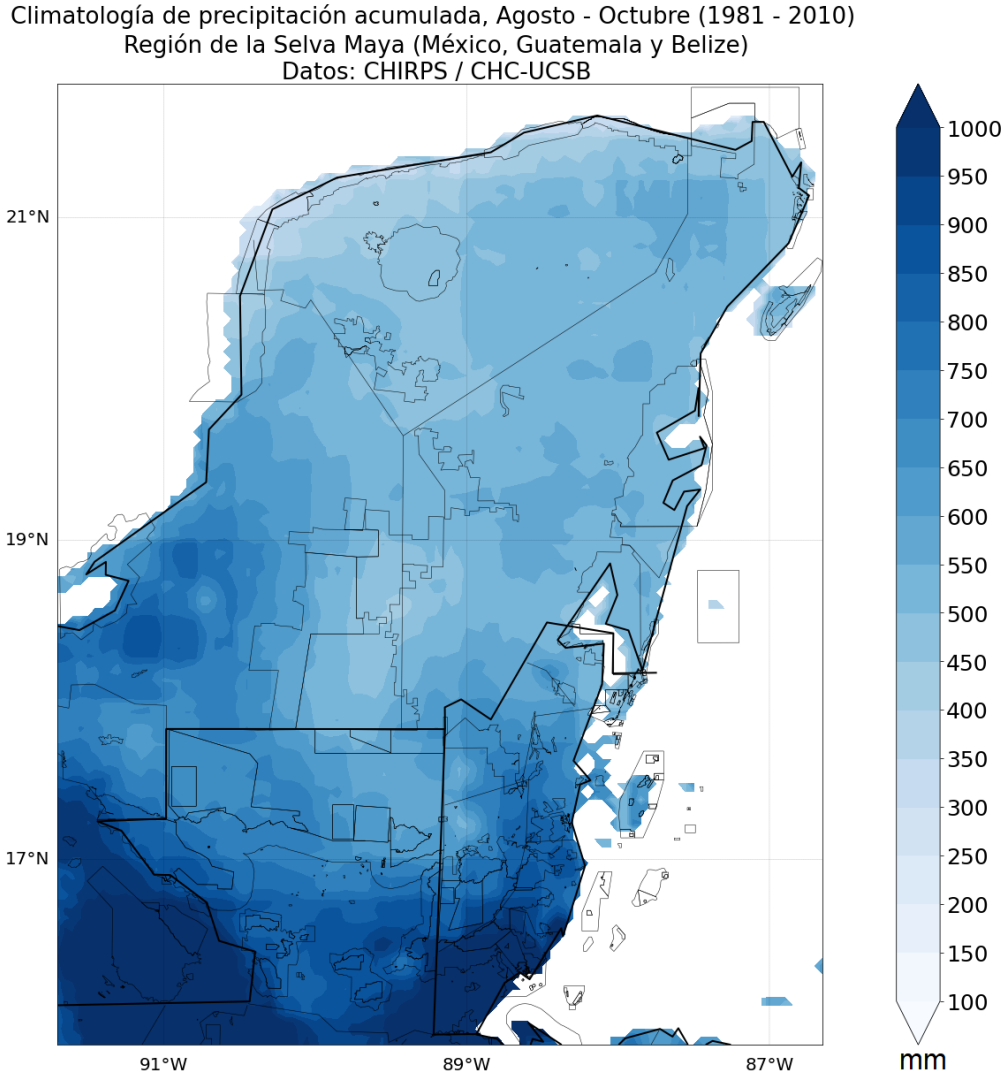

Figure 1. Map of Precipitation Climatology of Selva Maya Region

SELVA MAYA CLIMATE OUTLOOK

Through the LXII Central America Climate Forum, a consensus was obtained on the "LXI Regional Climate Perspective" for Central America, including this time the South of Mexico, which was validated by the Meteorological Services of Mexico, Guatemala and Belize for the Selva Maya region from August to October.

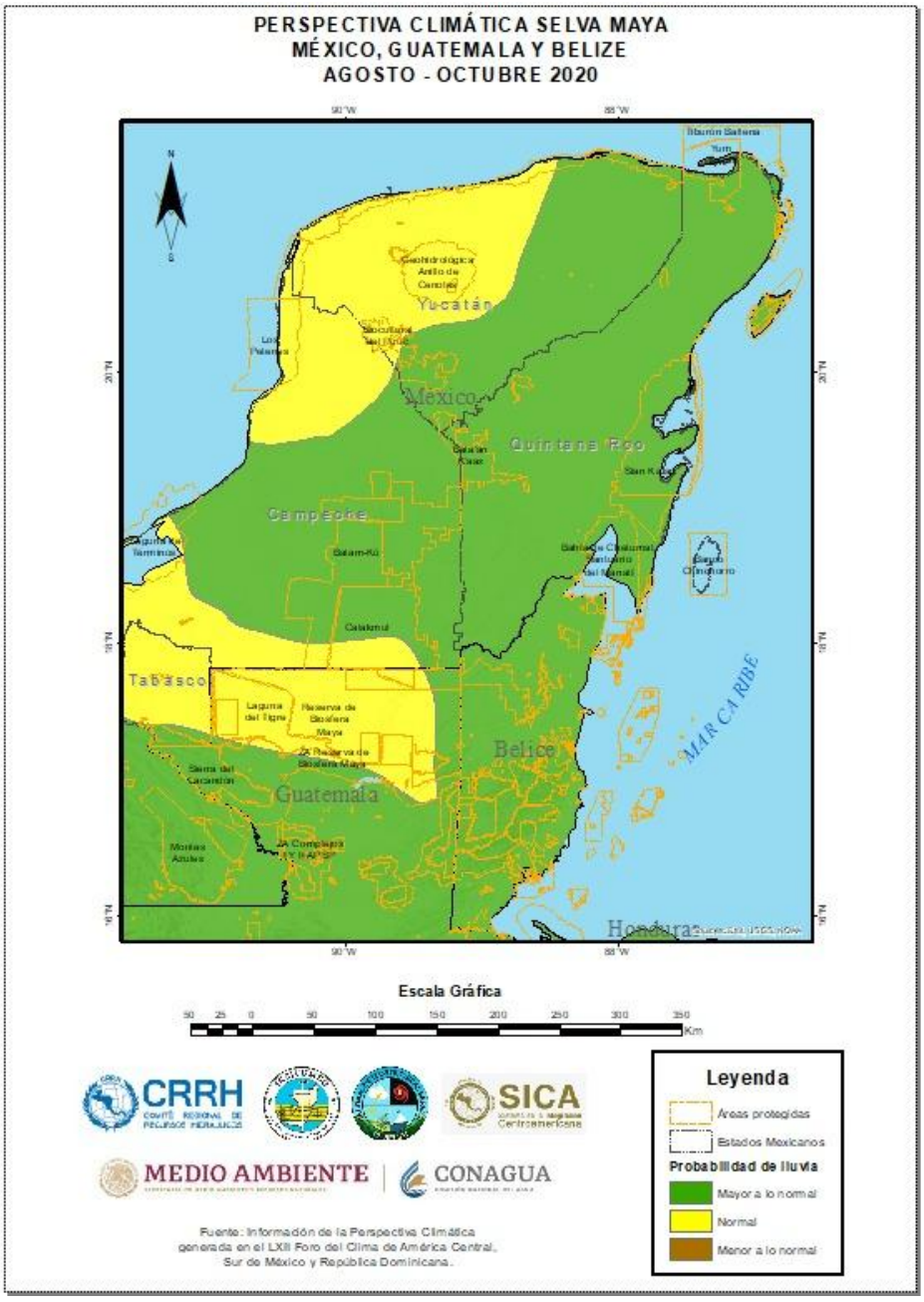

Figure 2. Selva Maya Region Climate Outlook Map.

Chart 1. Accumulated rain Probability of period from August to October 2020

	Above normal (Green)
	Normal (Yellow)
	Below Normal (Brown)

Chart 2. Most probable rainfall scenarios for the Selva Maya region, period from August to October 2020.

Country	**Most probable Scenario**		
	Above Normal (A)	**Normal (N)**	**Below Normal (B)**
Mexico	Quintana Roo, eastern Yucatan, central Chiapas, as well as central and eastern Campeche.	West of Yucatan, north and south of Campeche, southeast of Tabasco and northeast of Chiapas.	
Belize	Whole Country		
Guatemala	Northwest of Petén, Franja Transversal del Norte, Caribbean Region, Boca Costa, Volcanic Chain, West and Southwest.	Petén, Central Plateau, East, Southeast and Pacific coast	

DESCRIPTION OF THE CLIMATE PERSPECTIVE OF THE SELVA MAYA REGION BY COUNTRY

Mexico

During the months of August, September and October (ASO), accumulated monthly precipitation of 68.6 mm, 135.5 mm and 134.7 mm, respectively, at the national level are usually recorded, considering September as the rainiest month of the year. During this quarter, the main accumulated precipitation is observed in the southern and southeastern region of the national territory. These rains are normally associated with the continuation of the rainy season in the country, the activity and entry of tropical waves, the dynamics of semi-permanent high pressure systems of the Atlantic and North Pacific Oceans, the intensity of the current of low-level winds in the Caribbean, the development, trajectory or impact of tropical cyclones on the coasts of Mexico and the decrease in polar air masses at mid-latitudes as of September. According to the results obtained, of the five statistical models of quarterly precipitation forecast elaborated with the IRI climate prediction tool (CPT), the forecast for the quarter estimates accumulated precipitation above the average in Quintana Roo, Campeche, Chiapas , southeast of Yucatán, Veracruz and Oaxaca. In the rest of the region, rains are expected to be within the normal range.

Guatemala

The region of the Selva Maya in Guatemala corresponds to the department of Petén and Franja Transversal del Norte (north of the departments of Alta Verapaz, Quiche and Huehuetenango), the rain forecast for these three months, from August to October, indicates rains within the normal values at north of Peten while the north of Huehuetenango, Quiche and Alta Verapaz, as well as the south of Peten may receive rains above normal. For the first fortnight of August, the rains can be deficient in northern regions, coinciding with the second part of the heatwave, which statistically occurs between August 5th and 15th, which can be interrupted by rains. In the second fortnight the rains will increase. In September the conditions will favor days with abundant cloudiness, drizzle and / or intermittent rains (temporarily), the second maximum of rain may be reached. Although a rainy October is expected, it is not ruled out that the rainy season ends between October 15th and 25th, in the second half of October the incursion of North winds is expected, associated with the displacement of mid-latitude systems (Cold Fronts) . Regarding hurricanes considering a normal season above normal, there is a probability of direct or indirect influence on Guatemala from approximately two tropical systems.

Belize

The tools used to create this perspective were: climatology, global and regional models, the Climate Predictability Tool (CPT) used through the CARICOF Outlook Generator (CAROGEN), global climate oscillations such as El Niño Southern Oscillation (ENSO).), North Atlantic Oscillation (NAO) and analysis by local climate experts. Taking these inputs into account, the outlook for the next three months indicates that rainfall will be above normal for the entire country with a probability of 55%. There is still a 35% chance that rain will be normal, while rain is unlikely to be less than normal

during this period. This corresponds to a range from approximately 650 - 750 mm of rainfall in the Corozal and Orange Walk districts to approximately 1800 - 2200 mm in the Toledo district.

The following climate perspective for the Selva Maya region will be prepared according to the results of the next Climate Forum.

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