



## **SEASONAL FORECAST SELVA MAYA REGION**

Mexico, Guatemala and Belize

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

### **CLIMATOLOGY OF SELVA MAYA REGION**

The climatology of the accumulated precipitation for the period of May, June and July, refers to the average from 1981 to 2010, of the accumulated precipitation recorded in the *Rainfall Estimates from Rain Gauge and Satellite Observations* (CHIRPS) database, which consists of a hybrid database that includes data from a satellite hydrostainer combined with data from surface rainfall stations.

Figure 1 shows the map of average accumulated precipitation for the 3 months (May, June, and July), in which can be seen that the greatest accumulated rainfall during this period occurs in southern Belize and central Guatemala, with values between 900 and 1200 mm, while the amount of rain is decreasing to the north, that is, in the Yucatan Peninsula, where accumulated precipitation between 375 to 450 mm is recorded on average during this quarter.

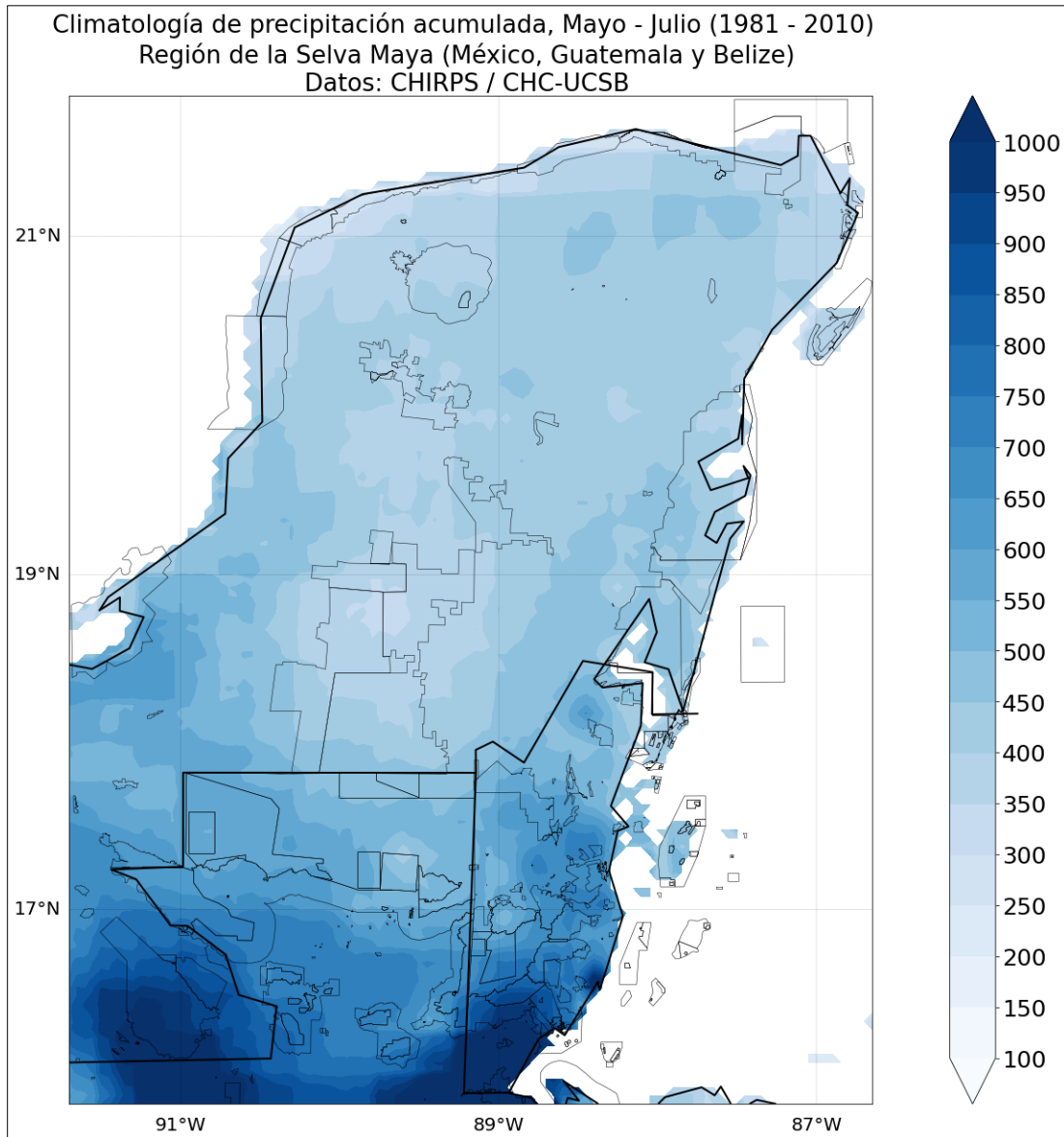
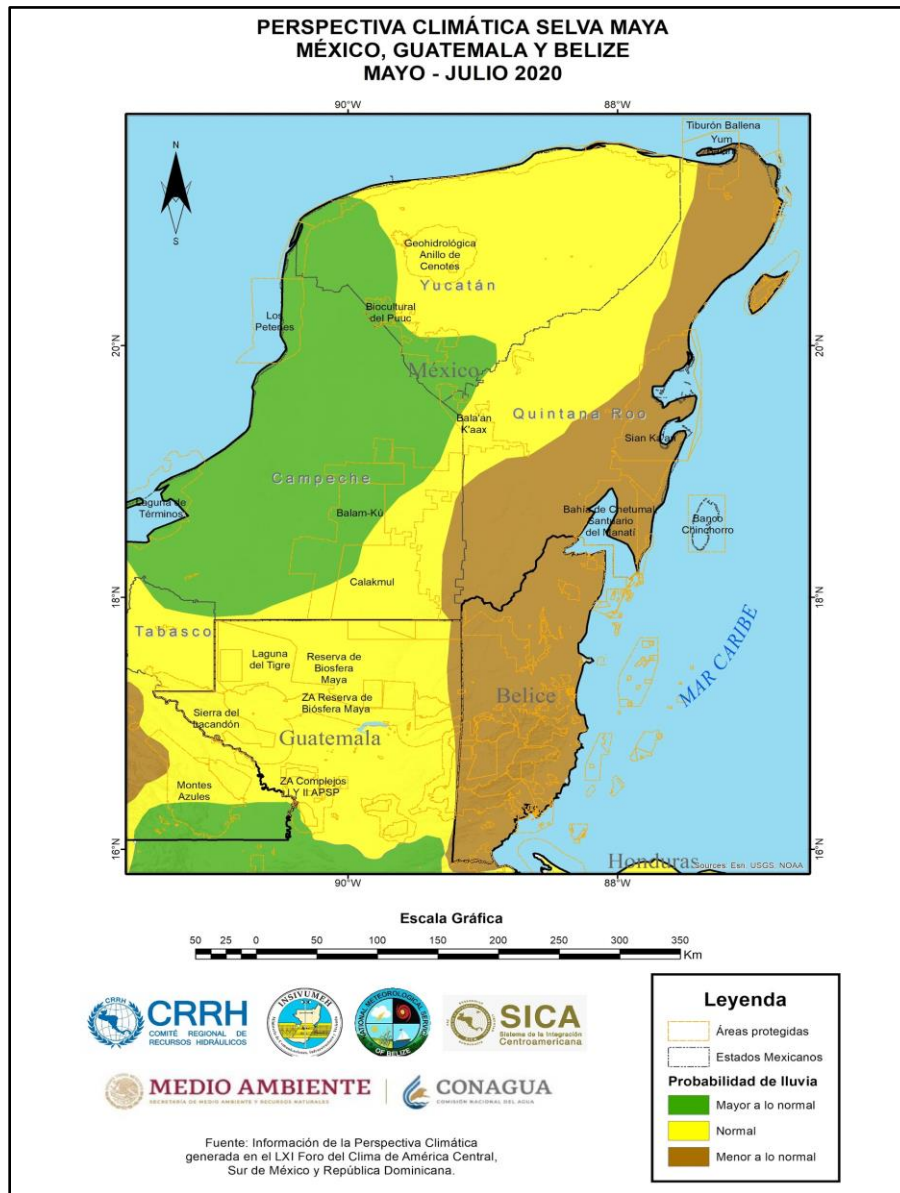


Figure 1. Precipitation Climatology Map at Selva Maya region

### CLIMATE OUTLOOK FOR SELVA MAYA

Through the LXI Central America Climate Forum a consensus was obtained on the "LXI Regional Climate Outlook" 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 May to July.



**Figura 2.** Climate perspective Map for Selva Maya region.

Seasonal Forecast elaborated in May 2020

**Chart 1.** Accumulated rainfall probability during period of May through July 2020.

	<b>Above normal (Green)</b>
	<b>Normal (Yellow)</b>
	<b>Below normal (brown)</b>

As seen in chart 1, for this particular perspective is important to highlight that zones marked in green have a 40% probability that the rainfall accumulated the quarter from May through July 2020 occur in the above normal scenario.

Meanwhile, for the zones indicated in brown there is a 40% chance, that the rainfall Will occur below normal.

At the yellow zones there is a 45% probability that rainfall will occur in the normal scenario.

**Chart 2.** Most probable rainfall scenarios for the Selva Maya region, period from May to July 2020.

Country	Most probable scenario		
	Above normal (A)	Normal (N)	Below Normal (B)
<b>Mexico</b>	Campeche	Franja Central of the Yucatan Peninsula and western Quintana Roo, eastern Chiapas and Tabasco	East of Quintana Roo.
<b>Belize</b>			All country.
<b>Guatemala</b>	Franja Transerval del Norte	Peten	



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

### Mexico

Typically, the rainy season begins around the third week of May in southeastern Mexico, where a large part of the region called “Selva Maya” is found. For the months of this year, the delay of the rains is expected, especially in the Quintana Roo region, while the Campeche region and northern Chiapas may have a start of rains as expected climatologically. The forecast of rains for these three months, from May to July, indicates rains within the normal values for wide areas of the central region of the Yucatan Peninsula, from northern Yucatan to eastern Chiapas and Tabasco, while the Most of Campeche may receive above-average rainfall, while the region with the highest risk of receiving deficit rainfall will be the state of Quintana Roo.

### Guatemala

The Selva Maya region in Guatemala corresponds to the department of Petén and Franja Transversal del Norte (north of the departments of Alta Verapaz, Quiché and Huehuetenango), the behavior of the beginning of the rainy season occurs from the fourth week of May (May 25 to June 05). For the present year a start of rains is expected according to the climatology. The forecast of rains for the following quarter, May to July, in the department of Petén has a probability of 45% that the rain occurs in the normal scenario, while the Franja Transversal del Norte has a probability of 40% that the accumulated rain occurs in the above normal scenario. According to the analysis carried out, the following considerations are given: in the month of May it is considered that they will continue registering high temperatures, as well as local convective rains, severe local storms in high places and strong wind; For the month of June, it is expected that accumulated significant rains will appear for most of the national territory, without ruling out any deficit in terms of rains in this month; in July it is expected that the canicula will be from the 10th through the 20th of the month and that it will not be very long, and may be interrupted by some isolated rain events.

### Belize

The tools used to create this perspective were: climatology, global and regional models, the Climate Predictability Tool (CPT) used through CARICOF Perspective Generator (CAROGEN), global climatic oscillations such as El Niño Southern Oscillation (ENSO), North Atlantic Oscillation (NAO) and the analysis of local climate experts. Taking these inputs into account, the outlook for the next three months indicates that rainfall will be below normal for the entire country with a probability of 40%. There is still a 35% chance that rain will be normal, while rain is not likely to be above normal during this period. This corresponds to a range from approximately 250 mm of rain in the Corozal and Orange Walk districts to approximately 1000 mm in the Toledo district. There is likely to be a slight delay in the start of the rainy season.

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

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