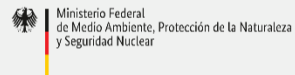


4th Weekly report of the 2019 fire season in the Selva Maya

15th April, 2019

Prepared by: Supported by:



Scope

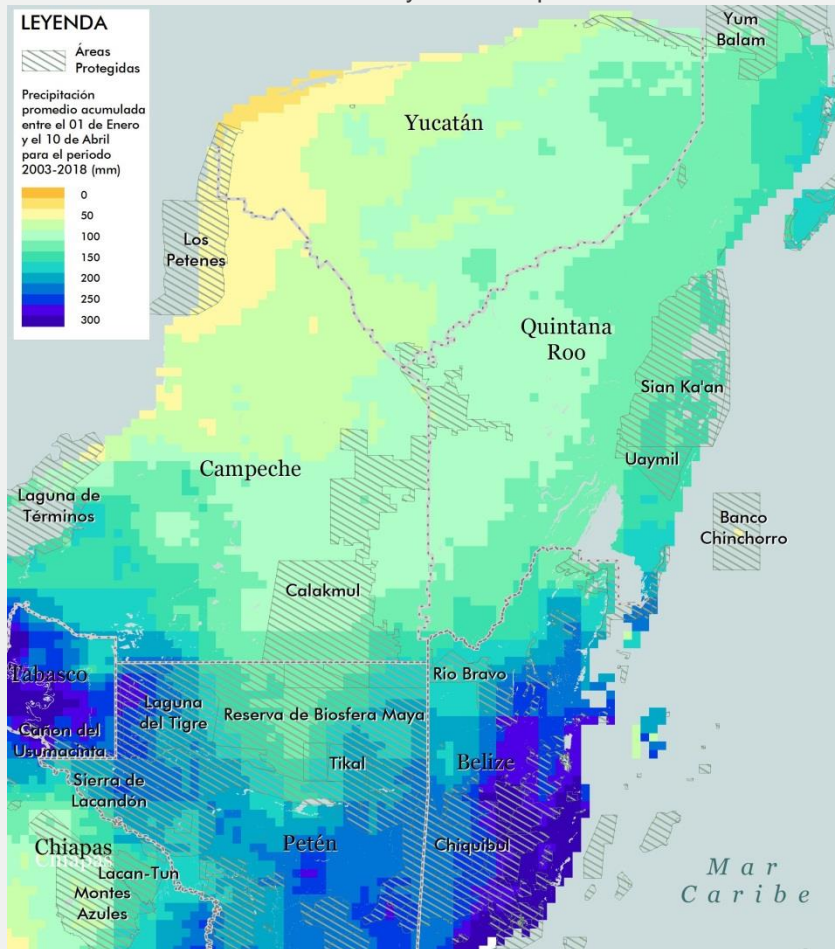
This report aims to support professionals in charge of prevention, mitigation and the fighting of wildfires during the 2019 fire season in the Selva Maya.

Contents

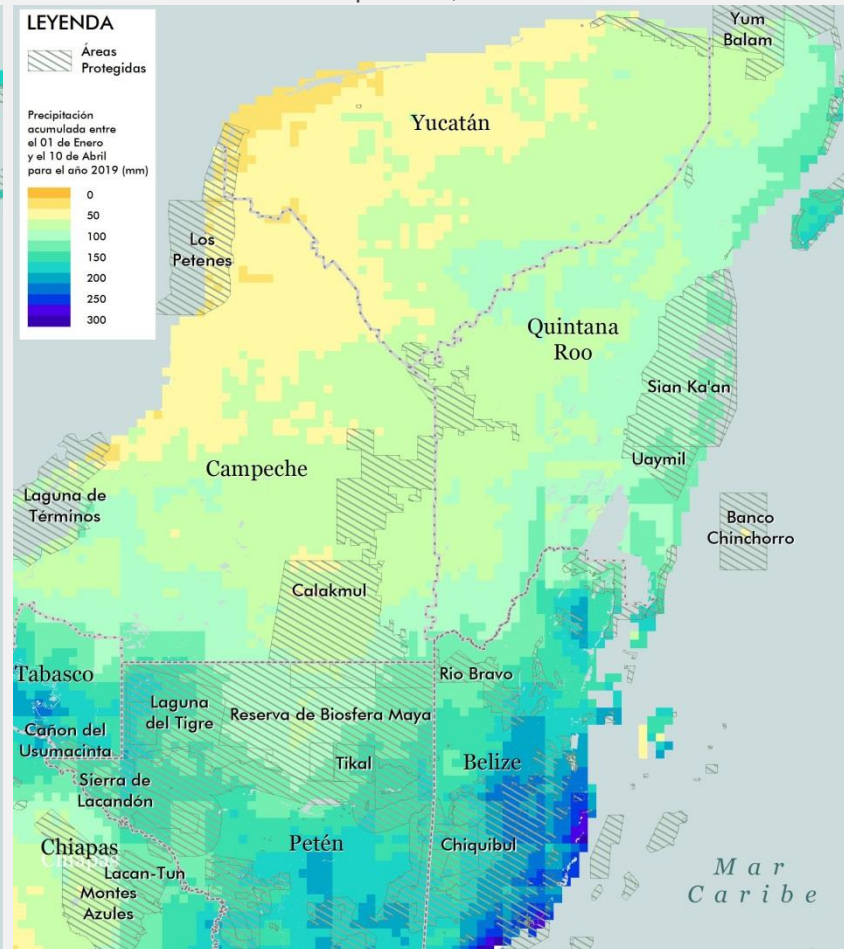
- Cumulative precipitation
- Precipitation forecast
- MODIS Hot spots
- VIIRS Hot spots
- Conclusions

Cumulative precipitation: value 2019 versus Historical average

Cumulative average precipitation 2003-2018
between January 1st and April 10th

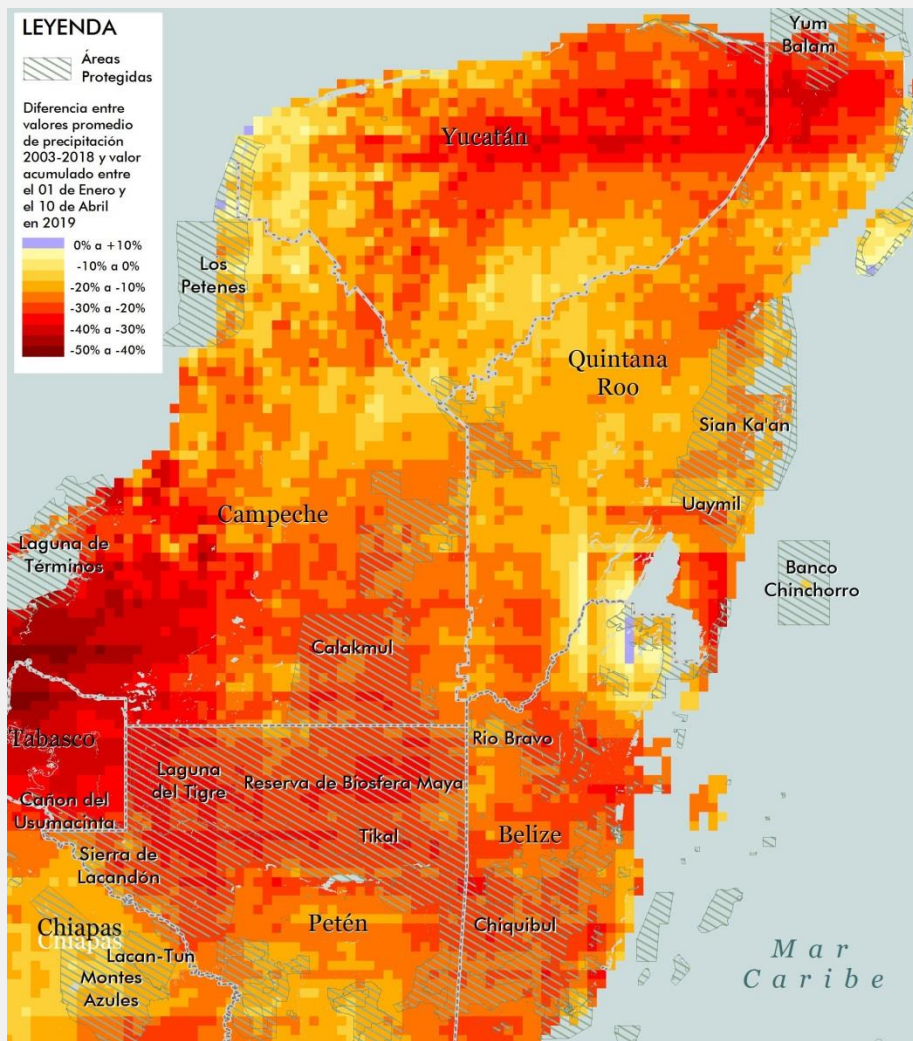


Cumulative precipitation between January 1st and
April 10th, 2019



The comparison between the average cumulative precipitation (January 1th and April 10th) of 2003 to 2018 and cumulative in the same time range 2019 shows an overall reduction of the amount of precipitation throughout the Maya Forest.

Cumulative Precipitation : 2019 value versus Average Value

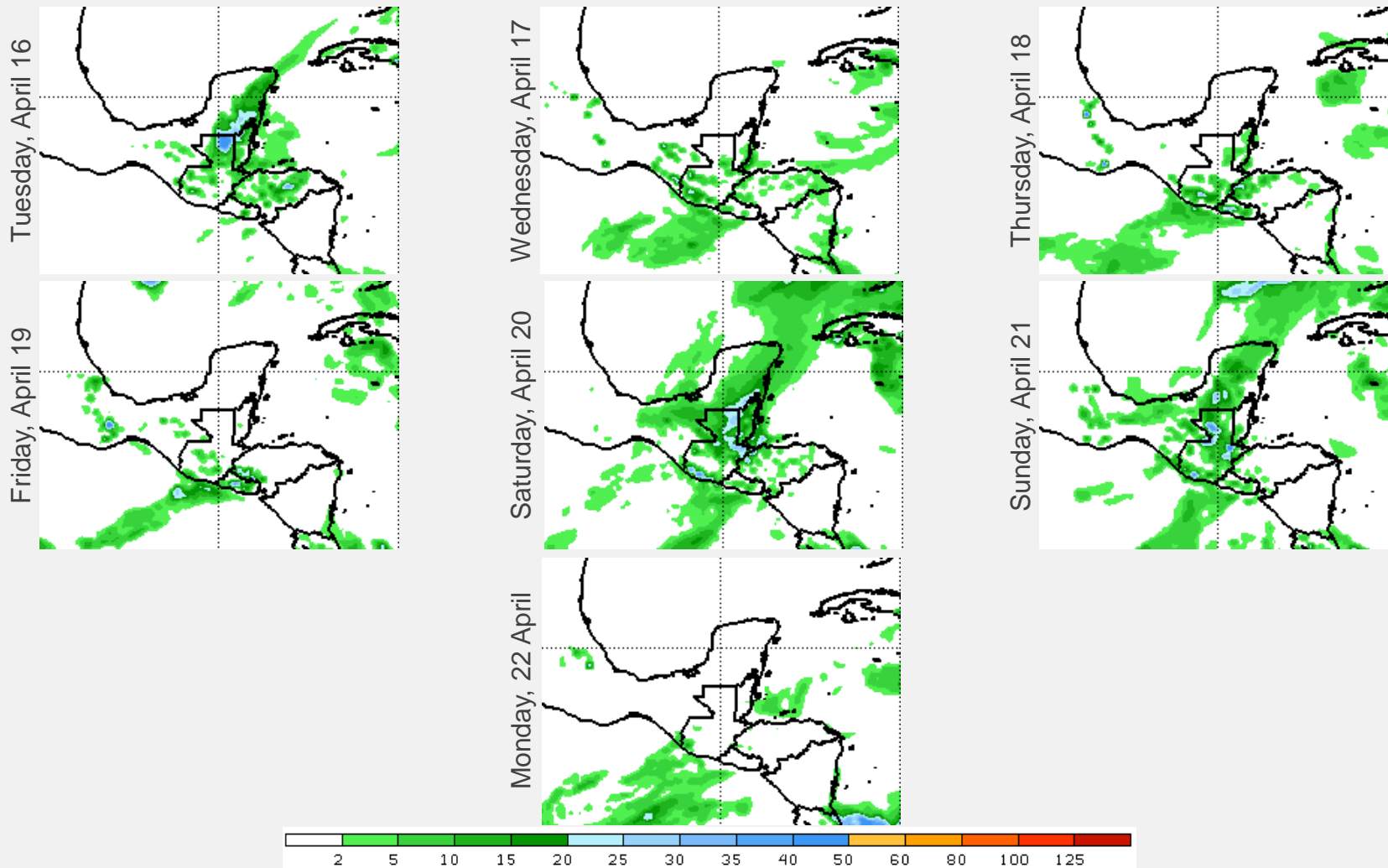


Cumulative precipitation between 1st January and 10th April, 2019

Campeche	-25%
Chiapas	-19%
Quintana Roo	-21%
Tabasco	-37%
Yucatán	-23%
Belize	-23%
Petén	-26%
Selva Maya	-24%

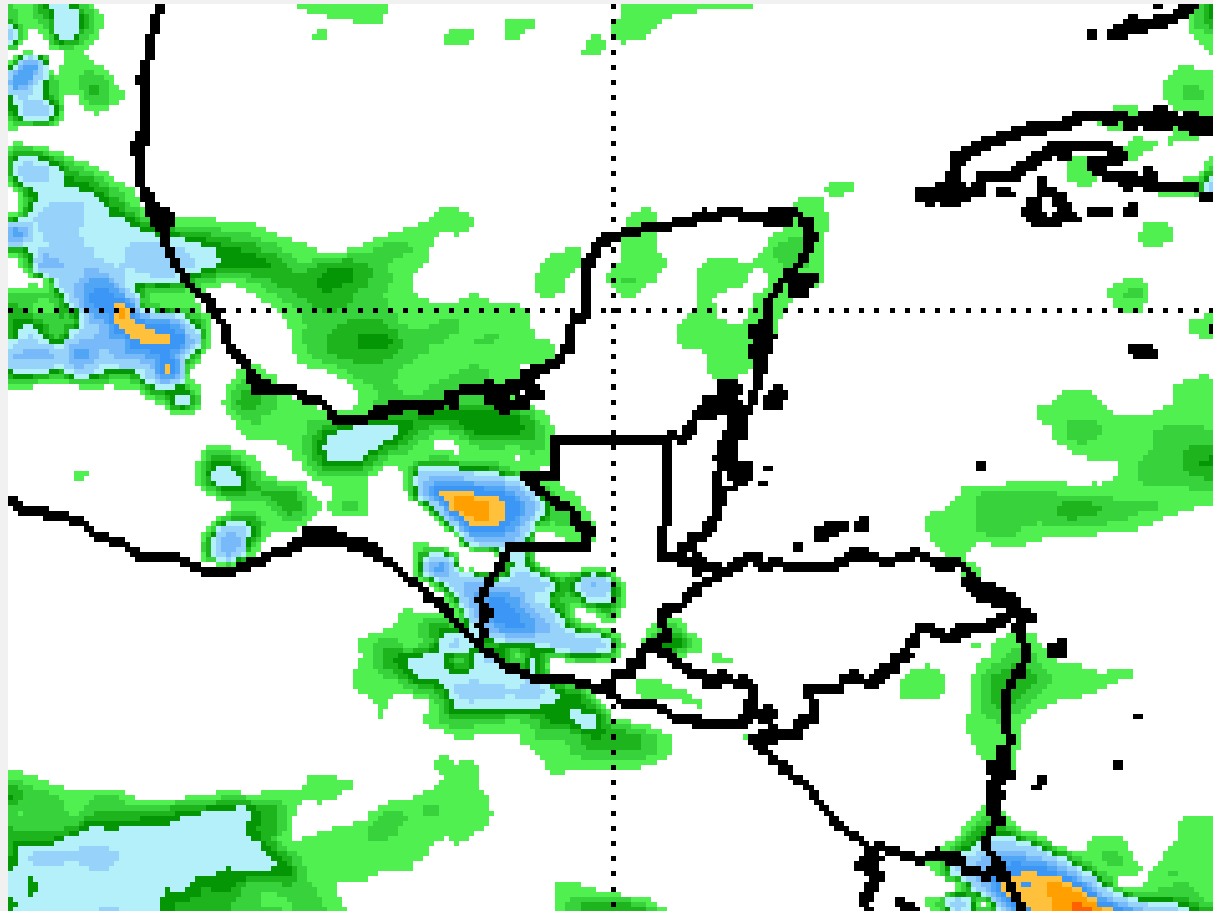
The difference between the cumulative precipitation in 2019 between January 1 and April 10 against the 2003-2018 average is in virtually the entire negative Maya Forest. The values where the difference is further are given in Tabasco (-37%) and Petén (-26%)

Precipitation forecast

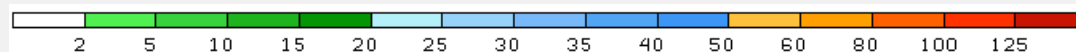


The precipitation forecast for the next seven days shows intense rainfall in Petén and Quintana Roo, southeast of Campeche on April 16th and more extended on April 20th and 21st. If the forecast is fulfilled, only the west coast of Campeche and Yucatan and the interior of Chiapas will not receive significant rainfall.

Precipitation forecast



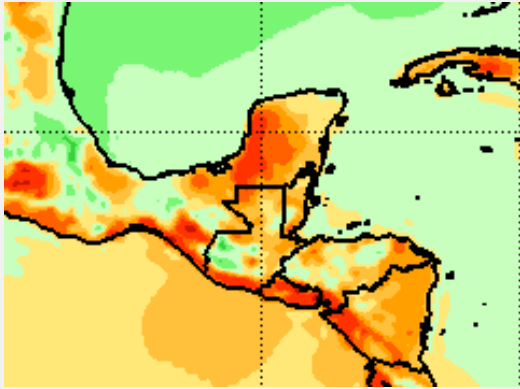
Martes 23 – Lunes 29 de Abril



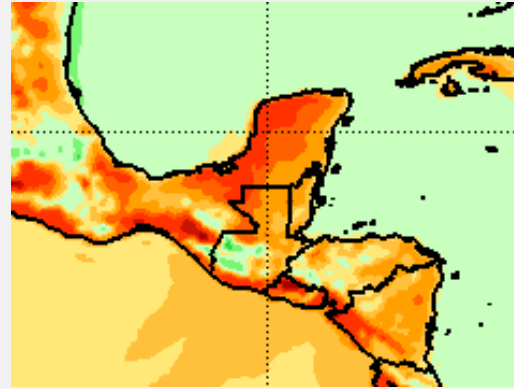
The forecast for the period from April 23rd to 29th shows potentially torrential rainfall in the Lacantún-Usumacinta region in Chiapas and less intense in Tabasco.

Maximum temperature forecast

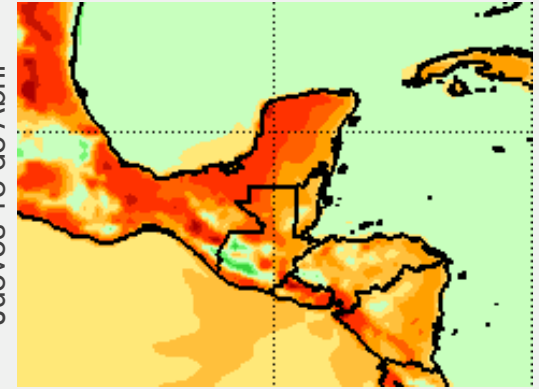
Martes 16 de Abril



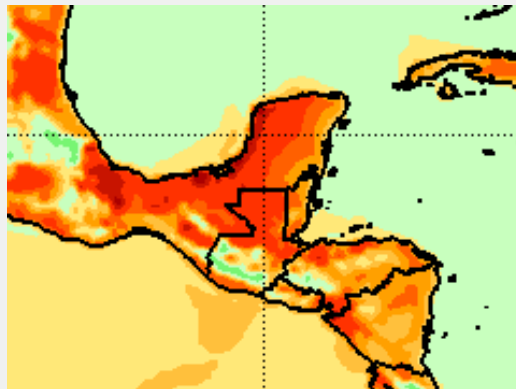
Miércoles 17 de Abril



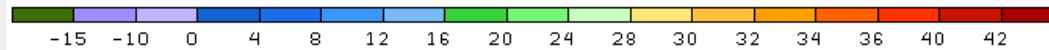
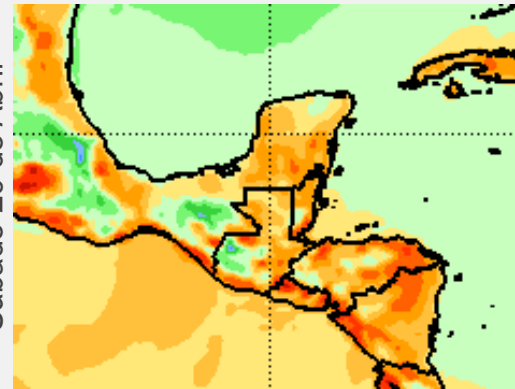
Jueves 18 de Abril



Viernes 19 de Abril



Sábado 20 de Abril



The maximum temperature forecast for the next five days shows values between 32 °C - 34 °C for four days of the period, while on Friday 19th we expect values up to 40 °C in practically the entire region.

Hot spots 2019

Two sources of hot spot data are presented in the weekly report. The first source being MODIS (Moderate Resolution Imaging Spectroradiometer) and the second VIIRS (Visible Infrared Imaging Radiometer Suite). Described below are some of the characteristics of both data sources and their differences regarding fire monitoring.

MODIS

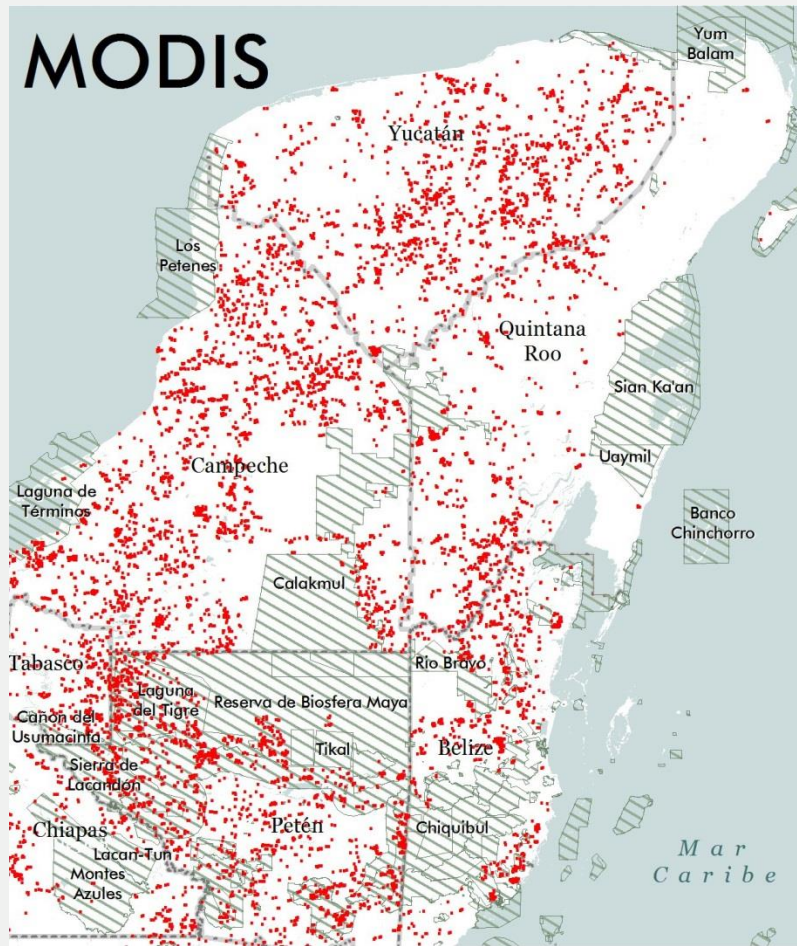
- MODIS refers to a set of sensors on board of two satellites (Terra and Aqua) launched in 1999 and 2002. The operation of both sensors allows global coverage of the Earth every 1-2 days and up to 4 overflights in any area near the Equator.
- The MODIS product used for near-real-time fire monitoring has a spatial resolution (pixel size) of approximately 1000 m
- The MODIS fire database line extends from 2003 to the present and is a valuable tool for the inter-annual comparison of the intensity of fire burning seasons. For this reason, all the information products that make this comparison will be based on MODIS in all future reports.

VIIRS

- VIIRS is a set of sensors on board of the Suomi-NPP polar orbit satellite, a joint initiative of NASA and NOAA. In theory there is global data coverage every 12 hours, hence, 2 daily passes.
- The VIIRS product used for near real-time fire monitoring (VNP14IMGTDL_NRT) has a spatial resolution (pixel size) of approximately 375 m.
- VIIRS and MODIS complement each other in the detection of fires and both satellites compare well with each other, but the higher spatial resolution of VIIRS improves the detection of small fires.
- VIIRS provides data since 2012. However, complete hot spot data are available only since 2015, so that the historical baseline provided by the MODIS data is of great importance, mainly to allow inter-annual comparison.

MODIS Hot spots

The MODIS satellite sensors allow the detection of "hot spots" in the landscape, which mostly reflect fires.

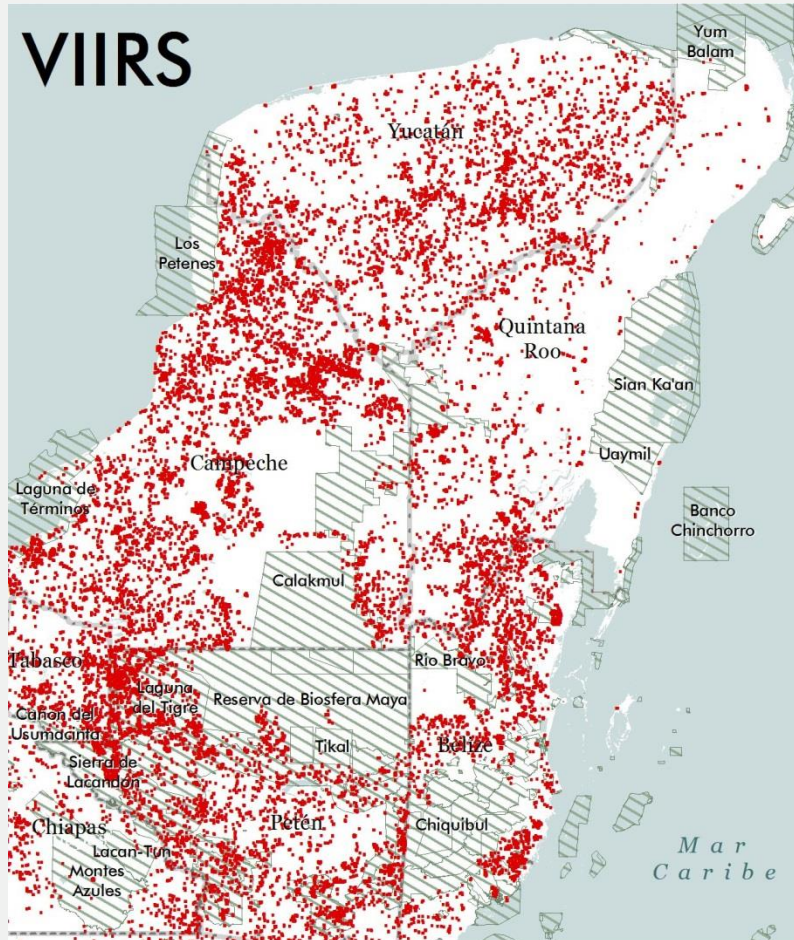


Total number of MODIS hot spots registered until April 14th

Campeche	2461
Chiapas	287
Quintana Roo	761
Tabasco	310
Yucatán	1635
Belize	782
Petén	1728
Selva Maya	7964

VIIRS Hot spots

The VIIRS satellite sensors allow the detection of "hot spots" in the landscape, which mostly reflect fires.



Total number of VIIRS hot spots registered until April 14th

Campeche	9330
Chiapas	741
Quintana Roo	2705
Tabasco	1270
Yucatán	4852
Belize	3430
Petén	5678
Selva Maya	28006

Conclusiones

- The cumulative precipitation in 2019 between January 1st and April 10th, is almost generally lower than the average value for the same period between 2003 and 2018. The largest reductions in the amount of precipitation for this period are recorded in Tabasco (- 37%) and Petén (-26%).
- Precipitation forecasts for the next two weeks indicate that generalized and locally torrential rains may occur in some cases.
- With the information available it is recommended to maintain a **high** alert level in the short term and lower it to **half** in case the precipitation forecast is fulfilled.

TodosSomosSelvaMaya # WeAreSelvaMaya

This report was elaborated within the framework of the project "Support for the Monitoring of Biodiversity and Climate Change in the Selva Maya". For more information please visit <http://selvamaya.info/es/proyecto-monitoreo/> or contact giz.selvamaya@giz.de

If you would like to receive further information on wildfires and related conservation issues in the Selva Maya, please register [HERE](#).

