

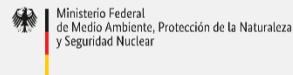
7th Weekly Report of the 2019 Fire Season in the Selva Maya

April 06th 2019

Developed by:



With the support of:



Scope

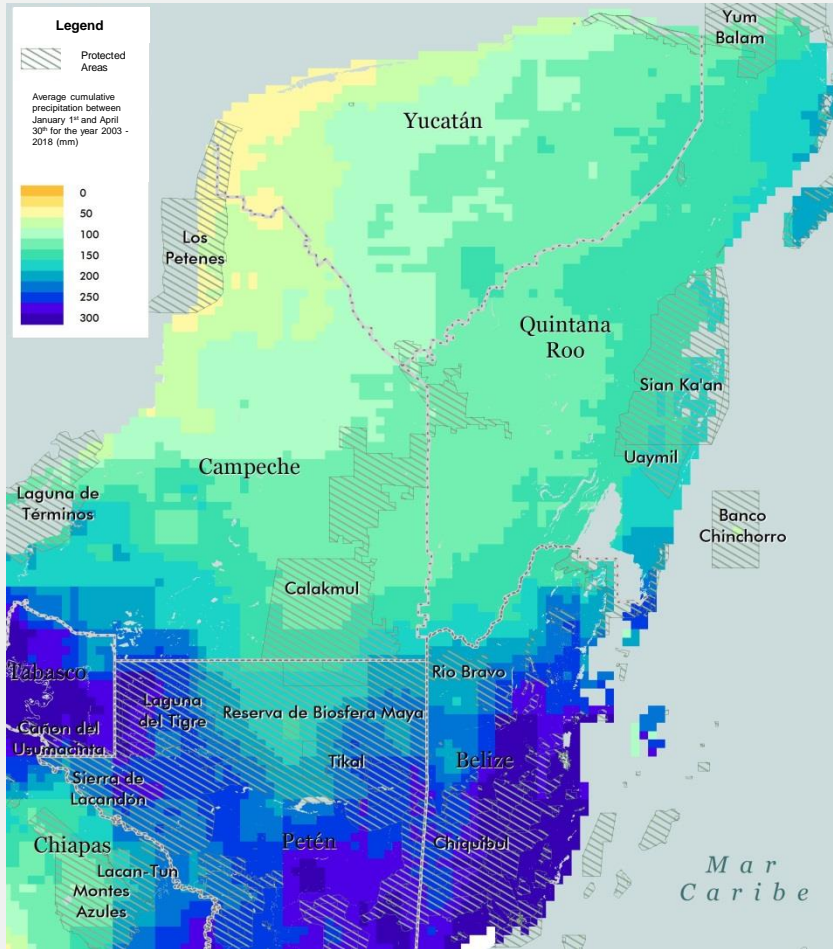
This report aims to support professionals in charge of prevention, mitigation and the fighting of wildfires during the 2019 fire season in the Selva Maya.

Content

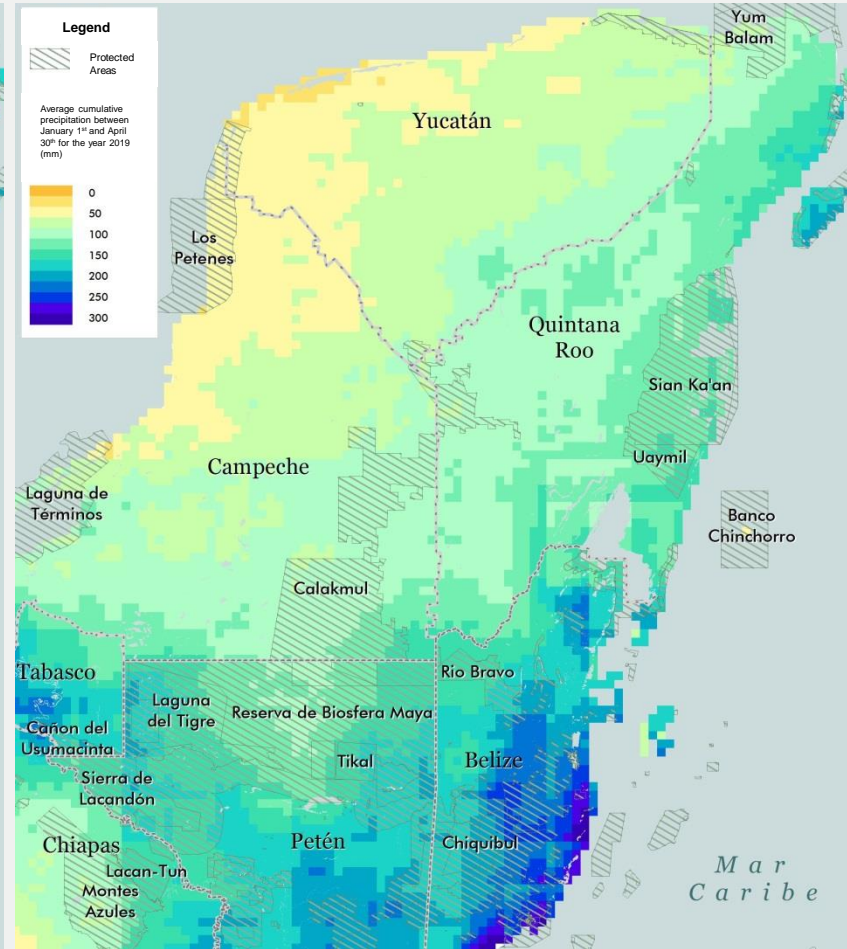
- Cumulative precipitation
- Precipitation forecast
- MODIS Hot Spots
- VIIRS Hot Spots
- Conclusions

Cumulative Precipitation: 2019 Values versus Historic Average

Average cumulative precipitation **2003-2018**
between January 1st and April 30th



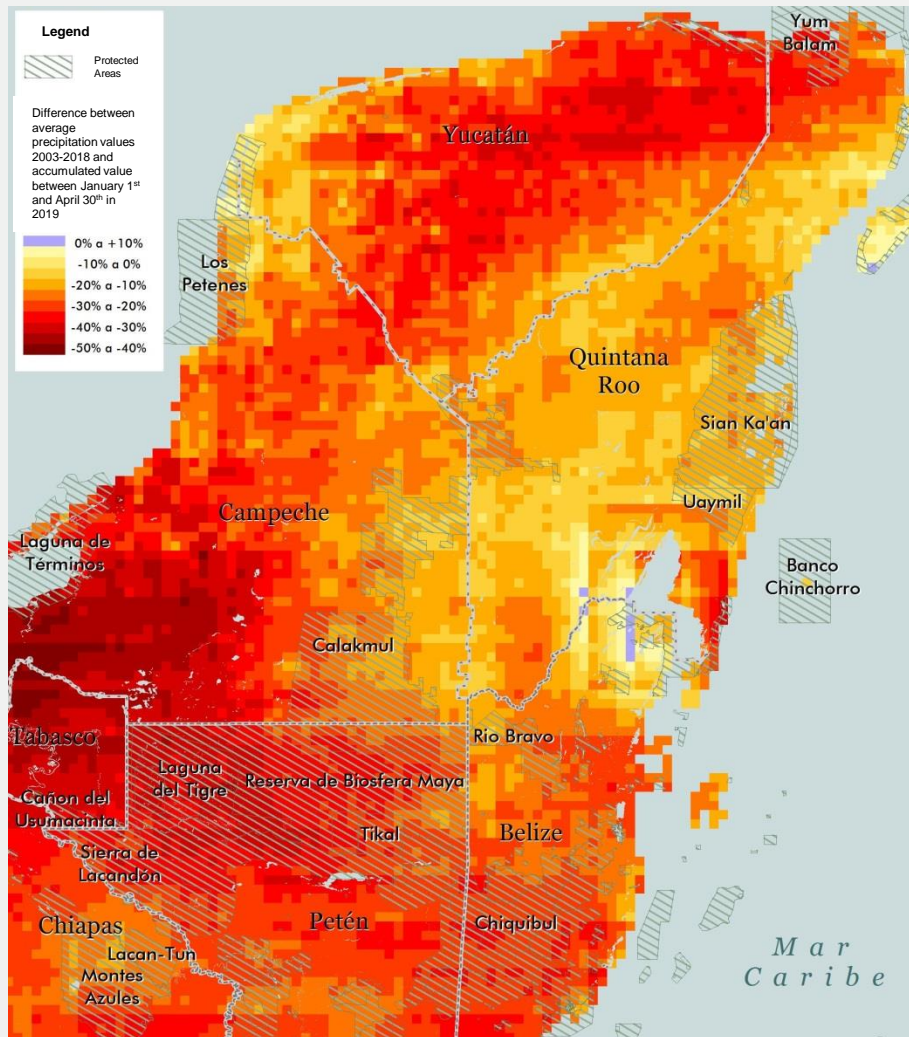
Cumulative precipitation between January 1st and
April 30th, **2019**



Data source: Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) , [<http://chg.geog.ucsb.edu/data/chirps/>]

The comparison between the average cumulative precipitation (January 1st and April 30th) of 2003 - 2018 and the cumulative of the same time range for 2019 shows an **overall reduction in the amount of precipitation throughout the Selva Maya.**

Cumulative Precipitation: 2019 Values versus Average Value

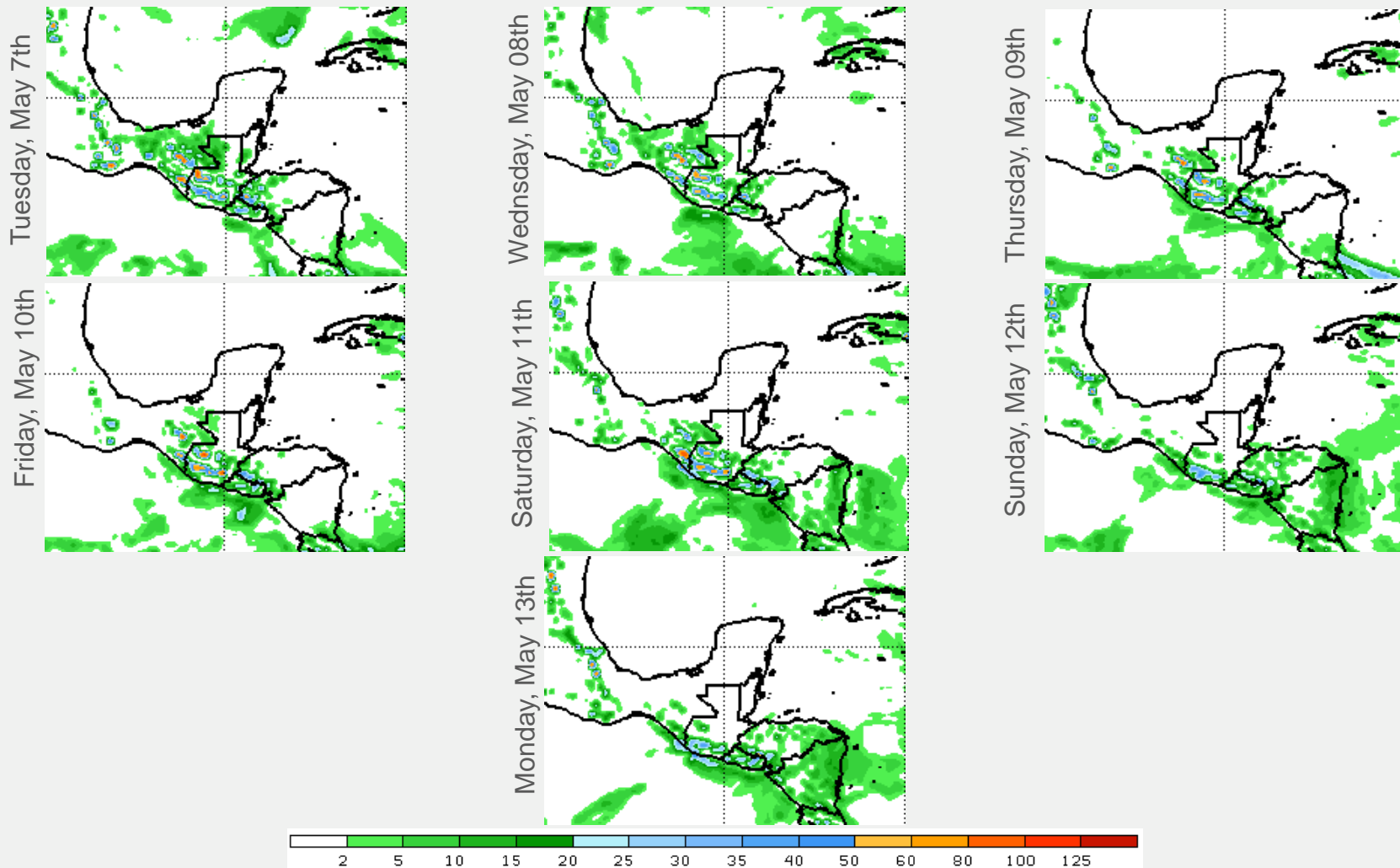


Accumulated rainfall between January 1st and April 30th, 2019

Campeche	-28%
Chiapas	-27%
Quintana Roo	-18%
Tabasco	-40%
Yucatán	-27%
Belize	-24%
Petén	-30%
Selva Maya	-26%

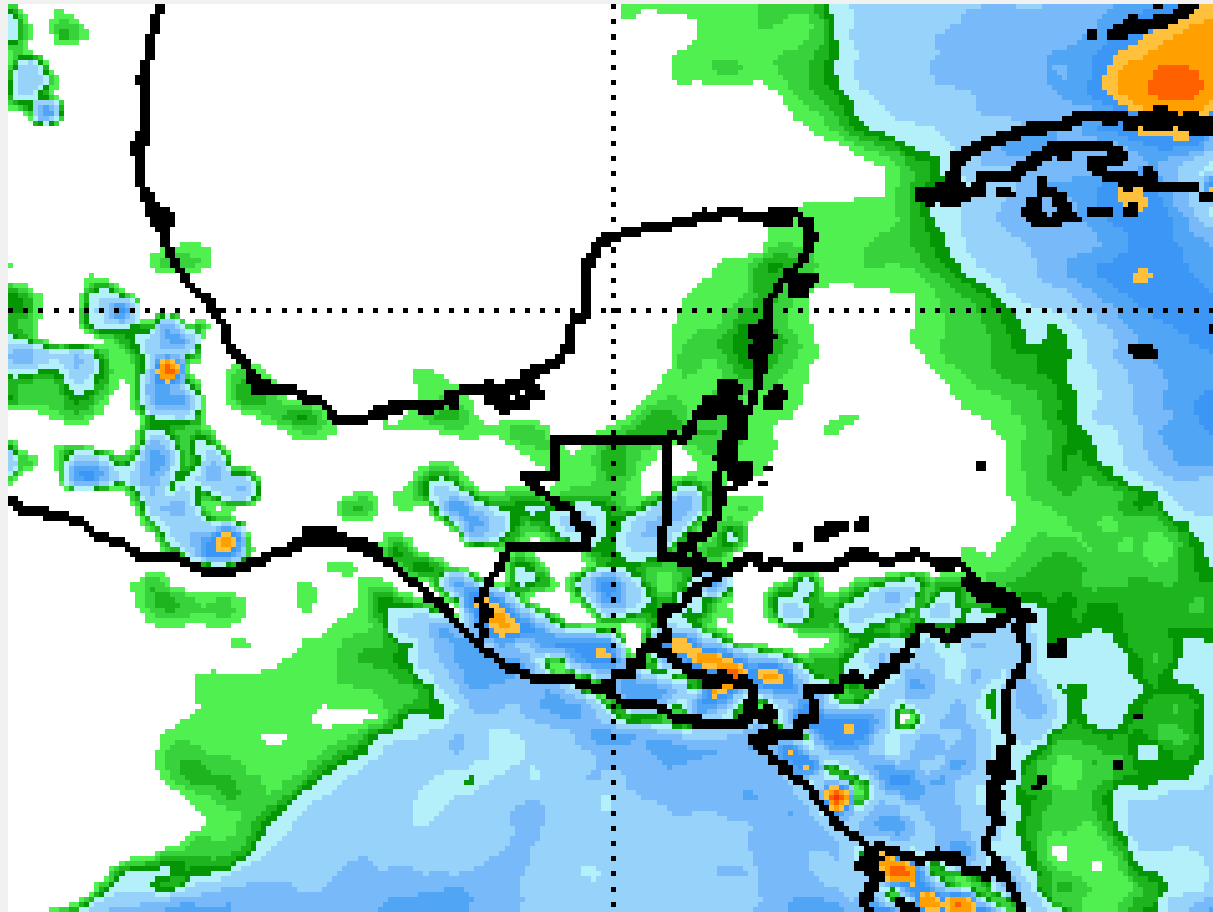
The difference between the cumulative precipitation in early 2019 (Jan. 1st – Apr. 30th) against the average from 2003 – 2018 is **negative throughout the Selva Maya**. The strongest deviations from average rainfalls are found in Tabasco (-40%), Campeche (-28%) and Petén (-30%).

Precipitation Forecast



The precipitation forecast for the next seven days indicates that the Lacandonia Region (both in Chiapas and Petén) and Tabasco should receive light rainfall. Forecasts are fairly reliable up to 3 or 4 days. For this reason it is worth visiting up to date forecast sites every few days. The forecast presented above can be accessed [HERE](#)

Precipitacion Forecast



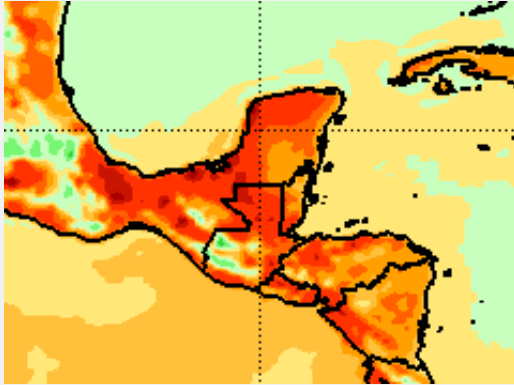
Tuesday, May 14th – Monday, May 20th



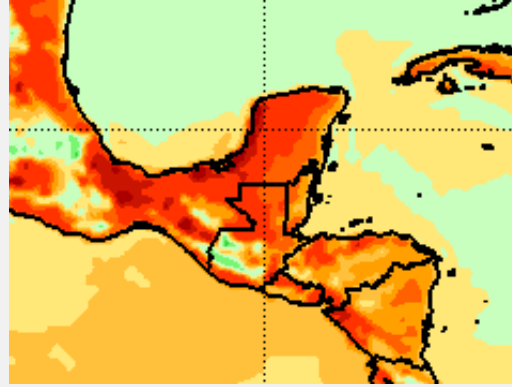
The forecast for May 14th – 20th shows light to heavy rainfall in Chiapas, Quintana Roo, Petén and Belize. In order to always be up to date with the latest values – enter [HERE](#) for the update of the image above.

Maximum Temperature Forecast

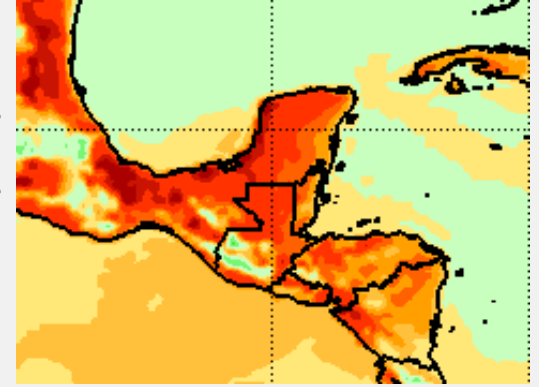
Tuesday, May 07th



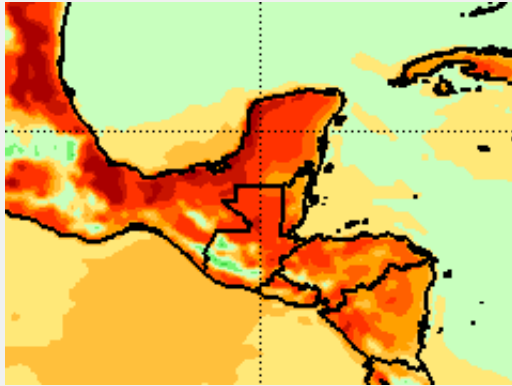
Wednesday, May 08th



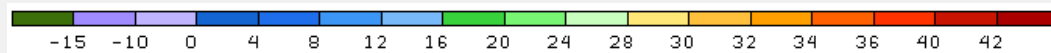
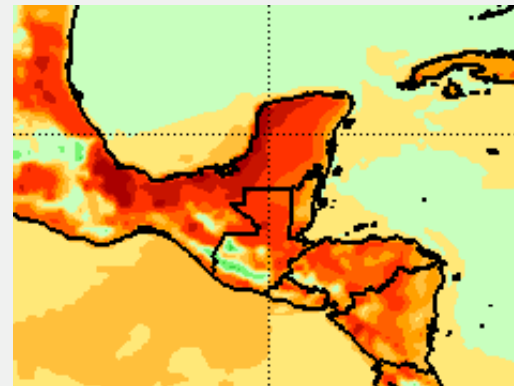
Thursday, May 09th



Friday, May 10th



Saturday, May 11th



The maximum temperature forecast for the next five days shows stable values around 34°C with somewhat cooler temperatures in the east of the region, mainly on the Caribbean coast.

2019 Hot Spots

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

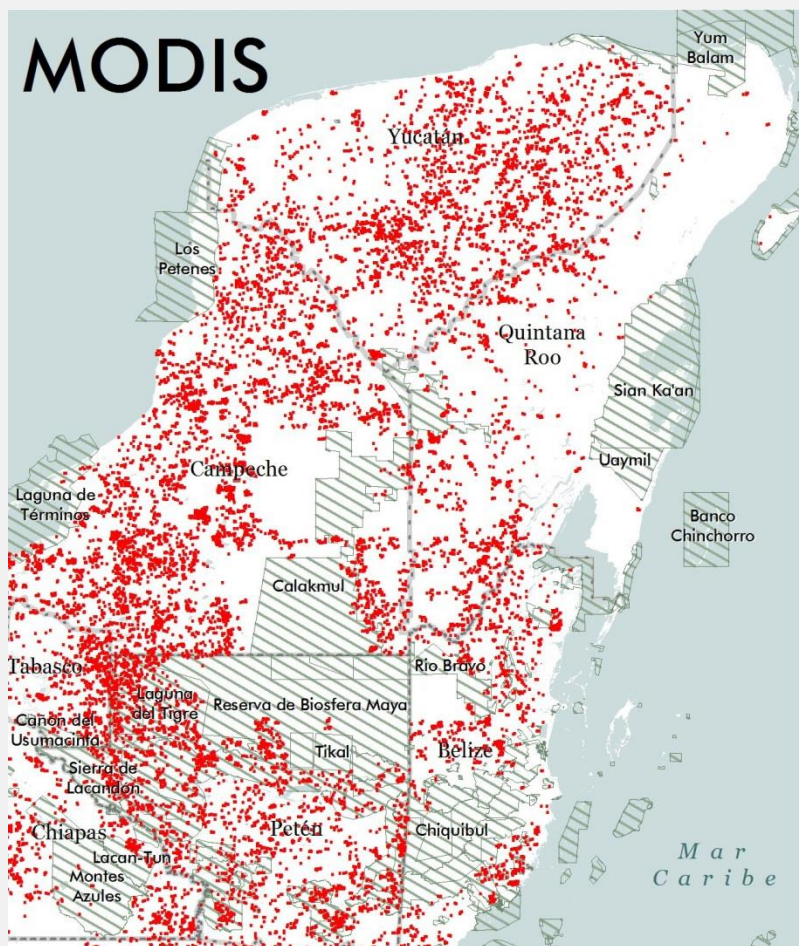
- MODIS refers to a set of sensors on board of two satellites (Terra and Aqua) launched in 1999 and 2002. The operation of both sensors allows global coverage of the Earth every 1-2 days and up to 4 overflights in any area near the Equator.
- The MODIS product used for near-real-time fire monitoring 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.

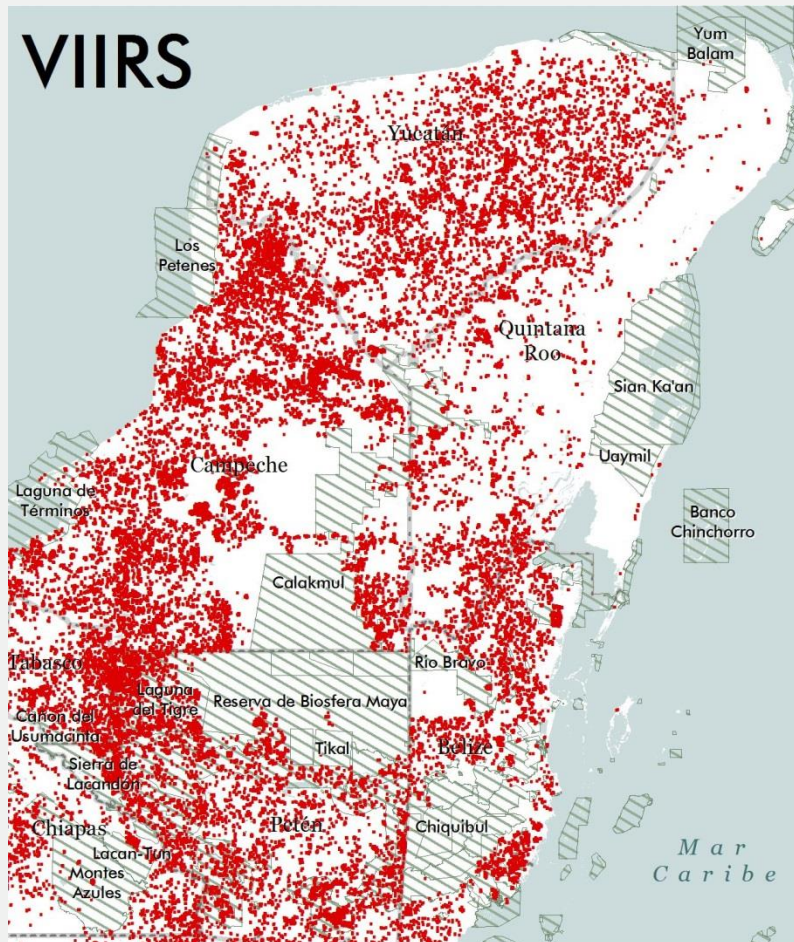


Total number of MODIS hot spots registered until May, 05th

Campeche	5614
Chiapas	751
Quintana Roo	1259
Tabasco	779
Yucatán	3210
Belize	1227
Petén	3157
Selva Maya	15997

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 May 05th

Campeche	20255
Chiapas	2225
Quintana Roo	4283
Tabasco	2807
Yucatán	9528
Belize	5243
Petén	11342
Selva Maya	55683

Conclusions

- The accumulated precipitation in 2019 between January 1st and April 30th is 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 (-40%), Campeche (-28%) and Petén (-26%).
- Precipitation forecasts for the next two weeks indicate that light to heavy rainfall is possible in Chiapas, Tabasco, Quintana Roo, Petén and Belize, but not for Campeche and Yucatán.
- On the basis of the available information, it is recommended to maintain **a very high level** of alertness for the upcoming week.

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](#).

