

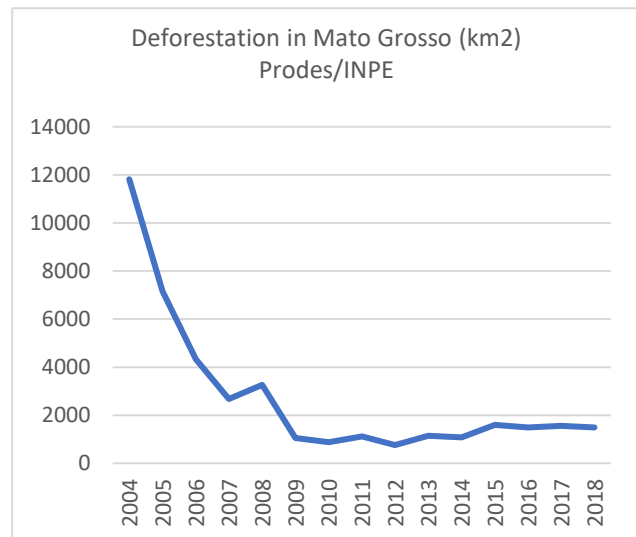
## Relevant Facts about Deforestation and Forest Fires in Mato Grosso

### 1. Data

The PRODES [1] project of the National Institute for Space Research (INPE) monitors satellite clearing of clear-cut deforestation in the Legal Amazon. Since 1988, it has produced annual deforestation rates in the region, which are used by the Brazilian government to establish policies and measure their effectiveness. PRODES data are also used to monitor socio-environmental commitments in soy and livestock production chains, intergovernmental agreements and the National Inventory of GHG Emissions, as well as results-based payment mechanisms.

Deforestation Rates by PRODES - 2004 a 2018 (Km<sup>2</sup>)

Year	Mato Grosso	Legal Amazon
2004	11814	27772
2005	7145	19014
2006	4333	14286
2007	2678	11651
2008	3258	12911
2009	1049	7464
2010	871	7000
2011	1120	6418
2012	757	4571
2013	1139	5891
2014	1075	5012
2015	1601	6207
2016	1489	7893
2017	1561	6947
2018	1490	7536
Var. 2018-2017*	-5%	8%
Var. 2018-2004*	-87%	-73%



(\* Updated on July 03rd 2019)

A preliminary estimate of the 2019 deforestation rate measured by Prodes will be available in December, and confirmed in early 2020.

INPE, through DETER [2], also makes a quick survey of evidence of changes in forest cover in the Amazon. DETER is not used to measure deforestation, it is an alert system to support deforestation control.

DETER data from July 2018 to August 2019 compared to the same period of 2018 indicate a 17% increase in alerts in Mato Grosso.

Another independent warning system with a different methodology than DETER is the SAD [3], released annually by the NGO Imazon. The SAD points out that from August 2017 to 2018 and from the same months 2018 to 2019, there was a reduction of deforestation in Mato Grosso by 17%.

INPE also monitors the occurrence of forest fires [4]. Data for South and Central America, Africa and Europe are updated every three hours, every day of the year.

The graph below depicts the history of fire alerts in Mato Grosso.

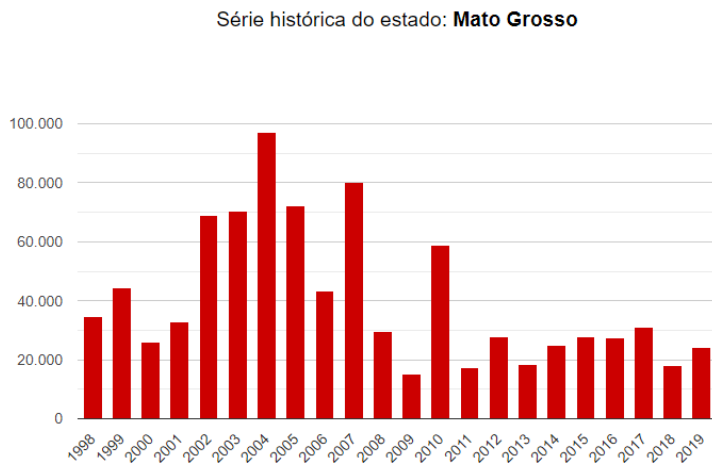


Figura 1 - Série histórica do total de focos ativos detectados pelo satélite de referência, no período de 1998 até 15/09/2019.

This graph shows a seasonal comparison between 2019 and historical rates of forest fire alerts:

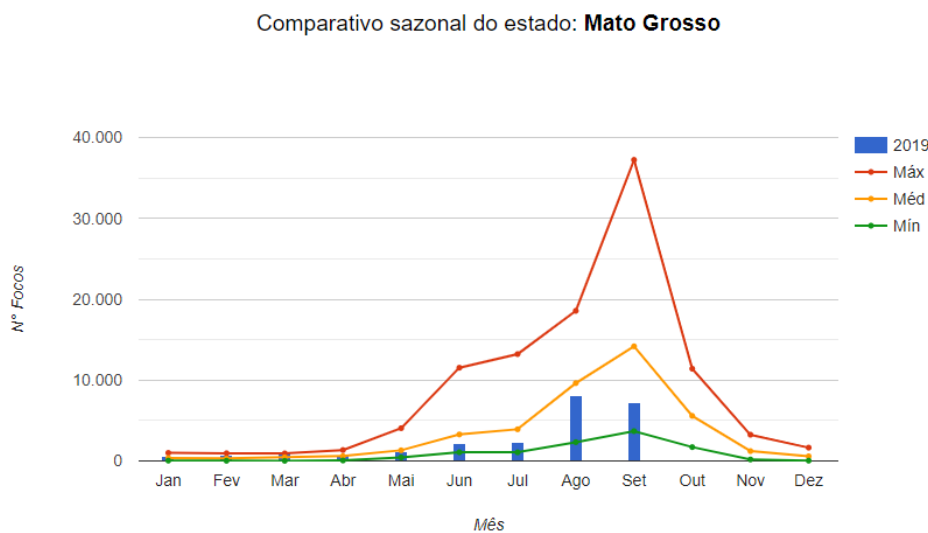


Figura 2 - Comparativo dos dados do ano corrente com os valores máximos, médios e mínimos, no período de 1998 até 15/09/2019.

Data for 2019 are not yet complete, but we anticipate a reduction in the number of hotspots over the coming months due to increased rainfall in the region.

In 2018, 85% of all deforested areas were converted without authorization, according to an analysis by the Instituto Centro de Vida (ICV). The concentration of deforestation detected in 10 of the 141 municipalities of Mato Grosso has characterized active deforestation frontiers, especially in the Northwest and Middle North regions. In 2018, 55% of all deforested area in the state was concentrated in 10 municipalities.

Regarding fires, the prohibitive period of fires in Mato Grosso began on July 15 and continues until September 15. During this period, the use of fire in rural areas for cleaning and management is prohibited, taking into account the risk of large forest fires. In the urban perimeter, burning is prohibited throughout the year. On August 30, the end of the prohibitive burning period was extended to November 30. Likewise, the authorization for legal deforestation in the state was suspended.

## 2. Action

Among the states of the Legal Amazon, Mato Grosso has the best response to illegal deforestation and forest fires, being one of the first to activate an Integrated multi-agency committee (Ciman-MT).

Established by Decree No. 174/2019, Ciman brings together the various agencies that work in the forest fire response season, such as the Fire Department of Mato Grosso, Prevfogo / Ibama and ICMBio, with the purpose of strengthening monitoring, prevention, readiness and rapid response to forest fires and burns in an integrated manner with the various levels of government.

Since August 2019, Mato Grosso has been using a Planet Satellite Image Monitoring Platform [5], acquired by the REM program, as a preventive environmental control tool. Featuring high spatial resolution images and alerts generated by daily real-time monitoring, the platform is powered by images from more than 120 Planet satellites, available with 3-meter spatial resolution covering the entire territory of the state. The large number of daily images enables efficient monitoring of critical areas and will serve as the foundation for strategic decision making.

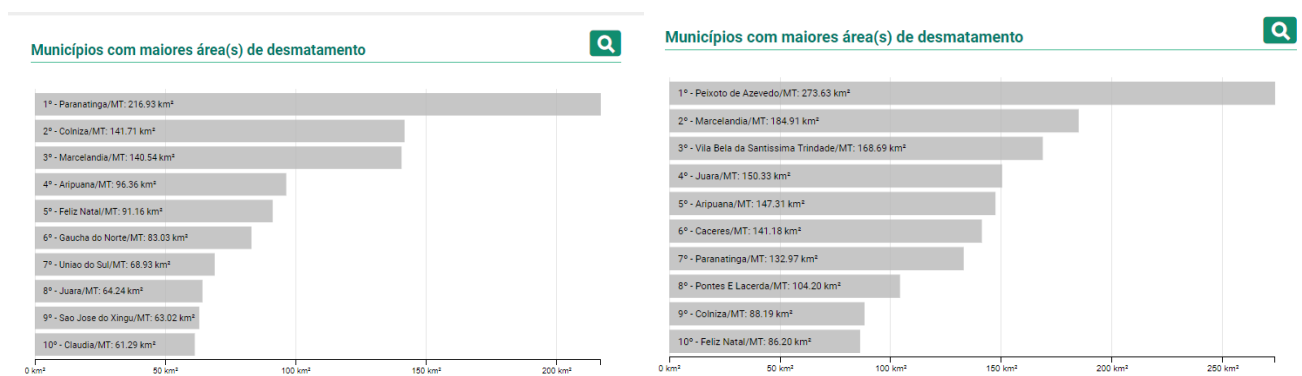
The Platform subsidized an Integrated Action to Contain Deforestation and Burning between the State Secretariat of the Environment, the Secretariat of Public Security and IBAMA, with 16 teams distributed in 7 regions of the Amazon.

From 08/25/2019 to 09/16/2019, 121 alerts were monitored. A total of 33,161.69 hectares were assessed, and 42 notices regarding deforestation were issued, 24 for forest fires, 50 for deforestation and forest fires and 4 for other reasons. The fines applied amount to R\$ 157,329.83. During the period, 15 tractors and 13 chainsaws and other assets used to commit environmental crimes were also seized.

In comparison, during the first half of 2019, Sema applied 561 notices of infraction (which corresponds to 74% of all notices issued in 2018) that generated R \$ 286 million in fines.

The immediate effect of task force action can be seen in practice in the graph below, which shows how Colniza, a municipality in northwestern Mato Grosso and one of the main focal points of deforestation in the state, moved from 2nd to 9th position after the start of Planet's use and enforcement activities:

Municipalities with the largest deforestation (July-August 2019 and August-September 2019)



The State Secretariat of Public Security (Sesp-MT) and the State Secretariat of the Environment (Sema) also work together on the “Abafa Amazônia” operation, which began in August for the qualified confrontation of environmental crimes and fires.

The operation joins federal and state fire fighting efforts, and is operating in 48 municipalities with the support of 400 people, 87 vehicles, 3 aircraft and 2 trucks. The Operation is integrated with the Environmental Crime Police Station to hold violators accountable.

### 3. Policies and Programs

Since 2009, Amazon states have been preparing their respective Deforestation and Forest Fires Prevention and Control Plans, such as the Federal Action Plan (PPCDAM), which has been underway since 2004. The plan relates to a broad set of initiatives aimed at coping with deforestation and forest degradation.

The current Mato Grosso Plan – PPCDIF [6] set the goal of maintaining an 80% (eighty per cent) reduction in deforestation in the period from 2016 to 2020. It should substantially contribute to the state government's zero illegal deforestation target by 2020, part of Produce, Conserve, Include (PCI) Strategy goals.

In 2013, the State of Mato Grosso passed Law 9,878, which creates the State REDD + System, built in a participatory manner under the Mato Grosso Climate Change Forum, through the GT-REDD+. This Law created the State REDD + Council and the Safeguards Standards Committee, composed of representatives of different segments of society.

In order to reinforce the actions to reduce global warming and to give greater political force to the deforestation reduction goals, Mato Grosso launched in 2015 the Produce, Conserve, Include Strategy – PCI [7], and signed a document “Commitment to Zero Illegal Deforestation”, aiming to eliminate illegal deforestation by 2020. The Produce, Conserve, Include Strategy joins public and private efforts for sustainable development through the efficient use of its territory.

In 2017, during the COP in Bonn, Mato Grosso agreed with the governments of Germany and the United Kingdom to implement in the state the REDD for Early Movers Program, which will directly support the PCI targets by supporting populations who are contributing to keeping the forest standing and the strengthening of environmental management in the state.

In 2017, the State also implemented the State Rural Environmental Registry System and regulated the Environmental Regularization Program provided for in the Forest Code. The Rural Environmental Registry (CAR) is a key instrument for territorial management in the state, for the implementation of the Brazilian Forest Code law and for the regularization of state agricultural production.

In 2019, a task force was set up at the State Secretariat for the Environment to expedite the analysis of some 60,000 CAR registrations so that producers can begin the process of regularization and restoration.

As of July 2019, 3,787 registers were analyzed. In comparison throughout the year 2018 only 3,000 registers had been analyzed.

Also in progress in the states are the Terra a Limpo Program, whose objective is the land tenure regularization of rural settlements in the Amazon, and the PAGE Program to promote the green economy.

#### 4. References:

[1] Prodes

<http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/prodes>

[2] DETER

<http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/deter>

<http://terrabrasilis.dpi.inpe.br/>

[3] SAD

<https://imazon.org.br/publicacoes/boletim-do-desmatamento-da-amazonia-legal-julho-2019-sad/>

<https://imazon.org.br/publicacoes/faq-sad/>

[4] Forest Fires

<http://queimadas.dgi.inpe.br/queimadas/>

[5] Planet

<http://www.mt.gov.br/-/12410640-nova-ferramenta-da-sema-permite-a-deteccao-imediata-do-desmatamento-illegal>

[6] PPCDIF, SIMCAR, SISREDD

<http://www.sema.mt.gov.br/>

[7] PCI

<http://pci.mt.gov.br/>

<http://pcimonitor.org/>