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The rainforest burns in Pará, the state in Brazil with the highest deforestation rate. © Victor Moriyama/Greenpeace

## Brazil's deforestation is exploding—and 2020 will be worse

By [Herton Escobar](#) Nov. 22, 2019 , 4:40 PM

Development, most of it illegal, destroyed more than 9700 square kilometers of Brazilian Amazon rainforest in the year ending in July, according to a government estimate released on Monday—an increase of 30% from the previous year and the highest rate of deforestation since 2007–08.

The number is based on analysis of high-resolution Landsat satellite images by the Program for Monitoring Deforestation of the Amazon by Satellite (PRODES), run by Brazil's National Institute for Space Research. The estimate confirms **indications of increased forest loss reported earlier this year** by a different system, the Real-Time Deforestation Detection System (DETER), which uses lower resolution satellite images for real-time monitoring of illegal activities in the forest.

Many scientists and environmentalists blame the deforestation spike on President Jair Bolsonaro's aggressive policies to support mining and ranching

and to dismantle environmental protections. But Minister of the Environment Ricardo Salles has said the increased deforestation continues a trend that began in 2012, before Bolsonaro was elected. *Science* asked Philip Fearnside, a scientist at Brazil's National Institute of Amazonian Research in Manaus, who's right. This interview has been edited for clarity and brevity.

**The Brazilian government argues we're looking at the continuation of a rising trend that began in 2012—not a deviation that can be blamed on the current administration. How do you see this?**

**A:** The deforestation surge in 2019 can definitely be blamed on the Bolsonaro administration, despite the fact that twice since 2012 [in 2013 and 2016], the deforestation rate approached this year's growth percentage. It should be remembered that the PRODES data only cover the year through July 31. The deforestation rate in the following months exploded to levels far above those for the same months in the previous year [according to DETER data], reaching 222% above the 2018 value in August. This part of the Bolsonaro effect will only be reflected in the PRODES numbers that will be released a year from now.

**Q: What particular actions and/or words from the Bolsonaro administration have contributed most to this rise in deforestation, in your view?**

**A:** The change results both from the constant anti-environment rhetoric and from concrete actions in dismantling the country's environmental agencies and effectively halting fines for illegal clearing. The rhetoric and institutional setbacks are documented in detail in a [recent paper that I co-authored](#). The discourse of the president and his minister of environment sends a clear message that there will be no consequences for violating environmental laws. When the ministers of environment and agriculture visited an illegal soy plantation in an indigenous area in Mato Grosso, they posed for photographs with the machinery and praised the operation. Those at the deforestation frontier do not follow the publication of decrees and laws in the government's official gazette or read the details of legal changes reported in major newspapers. Instead, their information comes from social media that rapidly spreads the news of each tirade by the president and his ministers against environmental agencies and NGOs [nongovernmental organizations].

**Q: Why was deforestation on the rise since 2012? What was happening before Bolsonaro came along?**

**A:** Deforestation has risen since 2012 due the continual increase in forces driving forest loss, such as more roads giving access to the forest, an increasing population, and more investment. The indirect effect of soy expansion has undoubtedly played an important role, with soy planters purchasing many cattle ranches in the state of Mato Grosso—not only in former Amazon forest, but also in the Cerrado savanna area. These ranchers use the money from the land sales to buy much cheaper land in the Amazon forest further north, especially in the state of Pará, where they clear forest on a large scale to establish new ranches. Pará has been the biggest contributor to deforestation since 2006, when it surpassed Mato Grosso.

**Q: What are your perspectives for 2020?**

**A:** They're grim. The PRODES data for next year will include deforestation that has occurred since August, which now totals at least 3929 square kilometers, based on the DETER monitoring system. Nothing has changed in the presidential administration's discourse, and the dismantling of the country's environmental institutions continues. Various planned roads, dams, and other projects in Amazonia will lead to more deforestation.

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