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Mongabay Series: Amazon Conservation, Amazon Illegal Deforestation

Experts blame Bolsonaro for surge in def orestation, warn of worse to come

by Liz Kimbrough on 25 November 2019

- Between August 2018 and July 2019, an area of 9,762 square kilometers (3,769 square miles) of primary forest was cleared, according to data released by the Brazilian National Institute of Space Research (INPE) last week.
- The area, roughly the size of Hawaii's Big Island, represents the highest deforestation rate in 11 years.
- Experts contacted for this story told Mongabay that the 30 percent surge of forest loss over the past year could be even higher for the coming months amid lack of enforcement and large cleared areas preceding fires in August and September 2019.
- The spike in deforestation is a direct result of the actions of President Jair Bolsonaro, who has been dismantling environmental agencies and environmental legislation to pave the way to open up Amazon protected areas to agribusiness and mining, experts said.

The highest rate of destruction of the Brazilian Amazon in over a decade is likely to worsen through the term of President Jair Bolsonaro if effective measures to halt deforestation don't come into force, experts warn.

Between August 2018 and July 2019, a combined area of 9,762 square kilometers (3,769 square miles) of primary forest, roughly the size of Hawaii's Big Island, was razed, according to data <u>disclosed</u> by the Brazilian National Institute of Space Research (INPE) last week.

Experts contacted for this story told Mongabay that the <u>30 percent</u> surge of forest loss over the past year could be even higher for the coming months amid lack of enforcement and large cleared areas <u>preceding the massive fires</u> of August and September 2019.

"We are now in the new deforestation season which started in August 2019. In the first months of the new season, we are seeing even more deforestation than in the same period of the last season," Carlos Souza Jr., a senior researcher at Imazon, a conservation nonprofit, told Mongabay. "If the federal government continues in the same way, there will be even more deforestation in this current season."

Deforestation in the Brazilian Amazon, 1988-2019 35000 30000 15000 10000 5000

Official PRODES data showing annual deforestation (Aug 1-Jul 31 year) in the Brazilian Amazon since 1988.

The Bolsonaro government has been highly criticized for its role in deforestation and forest destruction. While annual deforestation has increased over the past 11 years, the spike seen in 2019 is, according to many experts, a direct result of the government's actions.

"The surge [in deforestation] is definitely a result of both President Bolsonaro's rhetoric and his concrete actions in dismantling IBAMA [Brazil's environment agency]," Philip Fearnside, an ecologist at the National Institute for Research in Amazonia (INPA), told Mongabay. Fearnside has dubbed this "the Bolsonaro effect."

The damaging actions of the current government have been examined both by <u>academics</u> and the <u>media</u>. Some of these actions include weakening Brazil's forest codes and environmental agencies, reducing protected areas, approving dangerous agrochemicals, overlooking and pardoning deforestation offenses, and denying climate change.

"What's so disheartening about Bolsonaro is that he's tearing apart laws and environmental safeguards that have taken many years to create," said William Laurance, a tropical ecologist at Australia's James Cook University and a member of Mongabay's advisory board. "The damage Bolsonaro is doing will last long beyond his tenure as president, as the demons he's releasing are notoriously hard to control."

The Ministry of Environment did not reply to requests for comment.



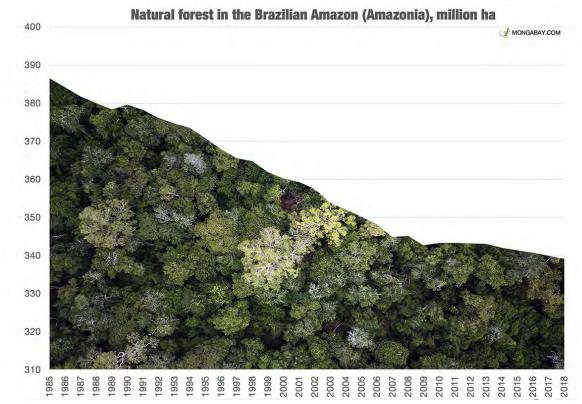
President Jair Bolsonaro has been criticized for dismantling IBAMA, Brazil's environment agency. In this photo IBAMA agents remove deforestation machinery from the forest. Image by Vinícius Mendonça/Ibama [CC BY 2.0.]

Why is deforestation increasing?

Deforestation rates had been higher in the past — 27,000 square kilometers (10,400 square miles) in 2004, and 29,000 square kilometers (11,200 square miles) in 1995 — but these peaks of deforestation were closely linked to an expansion of the economy driven by a commodity boom, said Cláudio Almeida, a senior technologist at INPE.

"The current increase has much lower absolute values. However, it is concerning that even in an economically difficult environment deforestation is on a steady upward trend for about seven years," Almeida said.

The increased pace of deforestation, said Souza, is alarming because soon more than 20 percent of the forest will be lost: "If we continue to lose forest at this pace, we may reach the forest <u>dieback tipping</u> <u>point</u> faster."



Natural forest covering in the Brazilian Amazon according to data aggregated by MapBiomas.

Carlos Nobre, a senior researcher at the University of São Paulo's Institute for Advanced Studies and a noted expert on the Amazon and climate change, expressed similar concerns.

"The implications [of this data] are far reaching," Nobre said. "Most worrying is the fact that a synergistic combination of deforestation, global warming and increased vulnerability of the forest to fires may drive 50 percent to 60 percent of the forest past a tipping point of savannization."

In this scenario, large areas of the Amazon would dry out and change from tropical rainforest to savanna. There is already evidence that the Amazon Basin is <u>drying out</u> faster than climate models have predicted. In the southern and eastern Amazon, the dry season is becoming longer, drier and warmer.

"If duration of the dry season exceeds four months," Nobre said, "[the Amazon] will turn into a dry tropical savanna. The impact will be huge, resulting in the release of over 200 billion tons of CO2, tremendous loss of biodiversity and impacts on rainfall systems in distant locations in South America."

Nobre said that areas such as river floodplains, where trees can access groundwater year-round, may retain forests, creating <u>forest fragments</u>. However, these fragments may be insufficient to support the wildlife

that live in the Amazon, including animals such as jaguars and primates, which need large areas of connected land to thrive.

What can be done?

The biggest obstacle to reducing deforestation, according to Souza, is the lack of actions to implement measures to control deforestation. "Brazil knows how to do that, and had successfully reduced deforestation," Souza said, referring to an action plan for the prevention and control of deforestation in the Legal Amazon, the region encompassing Brazil's nine Amazonian states. Known as PPCDAM, this plan addressed land tenure and territorial planning, environmental monitoring and control, and fostering sustainable production, according to Souza.

"What I believe," Almeida said, "is that making deforestation rates fall again will require strong enforcement and oversight with the presence of the state, while society needs to renegotiate sustainable production measures, such as the moratorium on production only in areas deforested before the forest code."



A male jaguar (Panthera onca palustris) rests along the Rio Negro, in Brazil. The animal is fitted with a tracker device around its neck which allows researchers to study its movements. Though riparian areas may retain forests fragments, animals such and the jaguar require large areas of connected land to thrive. Photo by Charles J Sharp [CC BY-SA 4.0]

<u>Brazilian beef</u>, <u>soy</u> and <u>mineral</u> imports by countries and companies also continue to drive deforestation. If companies rigorously worked toward a deforestation-free supply, Nobre said, deforestation could be drastically reduced in as little as five years.

However, unless there are rapid and systemic changes in supply chains and effective law enforcement action, Nobre said, "it is likely that deforestation in 2019-2020 will be out of control."

Banner image caption: Dead tree in a pasture area in Novo Progresso, Pará state. Image by Vinícius Mendonça/IBAMA [CC BY 2.0]