

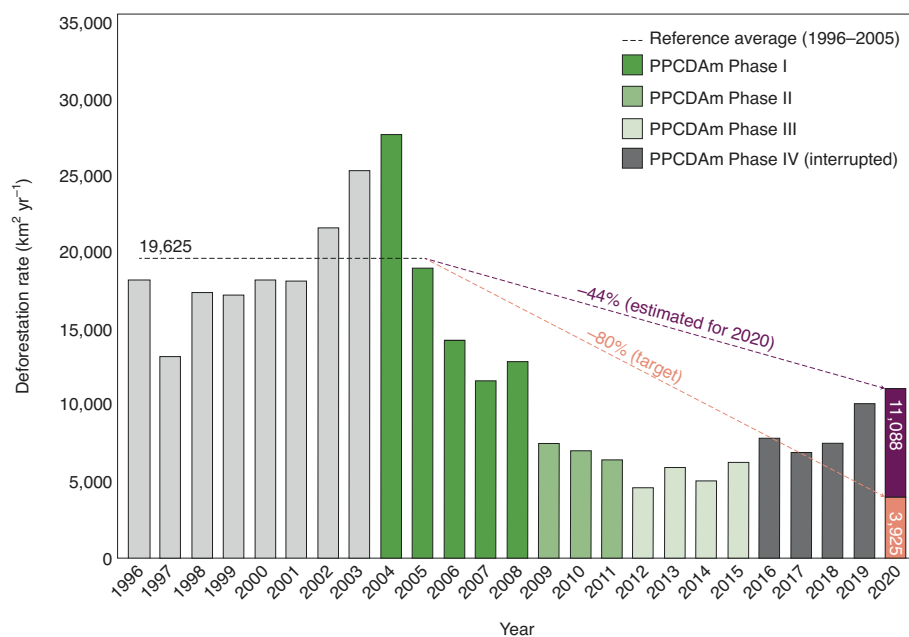
# The Brazilian Amazon deforestation rate in 2020 is the greatest of the decade

**To the Editor** — In 2012, Brazil achieved an unprecedented feat among tropical countries by reducing deforestation rates in Amazonia by 84% (4,571 km<sup>2</sup>) compared to the historical peak of 2004, when 27,772 km<sup>2</sup> of forests were clear-cut<sup>1</sup> (Fig. 1). This achievement resulted from multiple government initiatives, particularly the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm)<sup>2,3</sup> and international pressure, such as the soy and beef moratoria<sup>4</sup>.

As part of Brazil's measures to achieve targets set for reducing greenhouse gas emissions, the National Policy on Climate Change, established in 2009, committed to reducing the deforestation rate in Amazonia by 80% by 2020 (refs. <sup>3,5</sup>). This would have meant a maximum forest loss this year of 3,925 km<sup>2</sup> compared to the baseline of 19,625 km<sup>2</sup> (the average of the 1996–2005 period)<sup>3,5</sup>. However, since 2013, official deforestation rates have been on an upward trend, worsening in the last two years<sup>1</sup>. In 2019, 10,129 km<sup>2</sup> of forest was clear-cut, an increase of 34% compared to 2018 (7,536 km<sup>2</sup>).

In 2020, the Brazilian Amazon Deforestation Monitoring Program (PRODES; see Supplementary Information) estimated deforestation of 11,088 km<sup>2</sup> based on 45% of the monitored area. This represents an increase of 47% and 9.5% compared to 2018 and 2019, respectively, and is the highest rate in the decade<sup>1</sup>. Although this is not the final number, previous years indicate an average difference of  $58 \pm 303$  km<sup>2</sup> between the first estimate and the final consolidated rate<sup>1</sup>, which will be presented in the first half of 2021.

The 2020 deforestation rate is 182% higher than the established target of 3,925 km<sup>2</sup> and represents a reduction of only 44% instead of the 80% established in law<sup>3</sup>. It equates to 648 TgCO<sub>2</sub> (or 648 million tons of CO<sub>2</sub>) emitted to the atmosphere related to gross deforestation<sup>6</sup>. In addition to compromising the greenhouse gas reduction targets, the rise in deforestation has intensified fires<sup>7</sup>. Fires promote large amounts of smoke emission, which can affect the population's respiratory health, exacerbating the vulnerability of indigenous, traditional and rural people<sup>8</sup>. Brazil has



**Fig. 1 | Deforestation on the rise.** Official deforestation rates for the Brazilian Amazon, taken from PRODES<sup>1</sup>. The target 80% reduction from the 1996–2005 average is also shown. Bar colours represent phases of the Brazilian government's Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm).


clearly failed in its bold intention to reduce deforestation rates.







The upward trend in deforestation has been catalysed by a series of environmental setbacks that started with controversial changes in the Brazilian Forest Code in 2012 (ref. <sup>9</sup>), and have been intensified by recent weakening of the Ministry of the Environment's deforestation enforcement actions, disregard of related climate change policies, and law bills that may regularize illegally grabbed public lands<sup>7,10</sup>.

Brazil is under national and international pressure to re-establish control of illegal activities in Amazonia. At the national level, former environment ministers, environmentalists, business entities and non-governmental organizations<sup>10</sup> have been pressing authorities to curb deforestation in Amazonia. At the international level, the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU) — under the EU–Mercosur Trade Agreement — have expressed their concerns with the climbing

of deforestation in the region<sup>10</sup>. Failing to heed these calls will aggravate the current economic crisis and challenge Brazil's post-COVID-19 recovery.

The successful actions that curbed deforestation in the Brazilian Amazon in the past must be urgently resumed, returning Brazil to its former position as a global protagonist for sustainable development. Brazilians must work alongside international pressure to foster public civil actions that hold to account those actors working against Brazil's environmental and social obligations. A Portuguese version of this Correspondence is provided in the Supplementary Information. Brazil, along with most other countries, is currently concerned with emergency measures to tackle the COVID-19 pandemic, but long-term planning is essential. The most strongly indicated actions encompass an urgent deforestation moratorium, supported by financial and human-resources investment in environmental monitoring and law enforcement, revision and strengthening of the PPCDAm, and a

coherent plan for regularization and protection of public and indigenous lands. We urgently call for actions that are truly committed with local social, environmental and economic development in Amazonia. 

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### Competing interests

The authors declare no competing interests.

### Additional information

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