

RAD 2021

ANNUAL REPORT ON DEFORESTATION IN BRAZIL

FACT SHEET

HIGHLIGHTS OF THE MAPBIOMAS INITIATIVE'S REPORT PRESENTING DEFORESTATION DATA IN ALL OF BRAZIL'S BIOMES IN 2021.

This is the third consecutive year that MapBiomas' Alerta Project publishes an overview of deforestation in all Brazilian biomes. It is produced based on the validation, refinement and generation of reports for each deforestation alert detected over the year in the country.

The report presents data on deforestation alerts in different territories (e.g. states, municipalities, biomes) and land tenure categories (ex. rural properties, rural settlements, protected areas, indigenous lands). It also assesses evidences of illegality, as well as the main drivers of deforestation and the actions taken by both federal and the states' public agencies to handle the problem.

1,655,700 ha

TOTAL DEFORESTATION IN BRAZIL

20% increase in the deforested area when compared to 2020

69,796

**ALERTS IDENTIFIED, VALIDATED
AND REFINED IN 2021**

4,251,700 ha

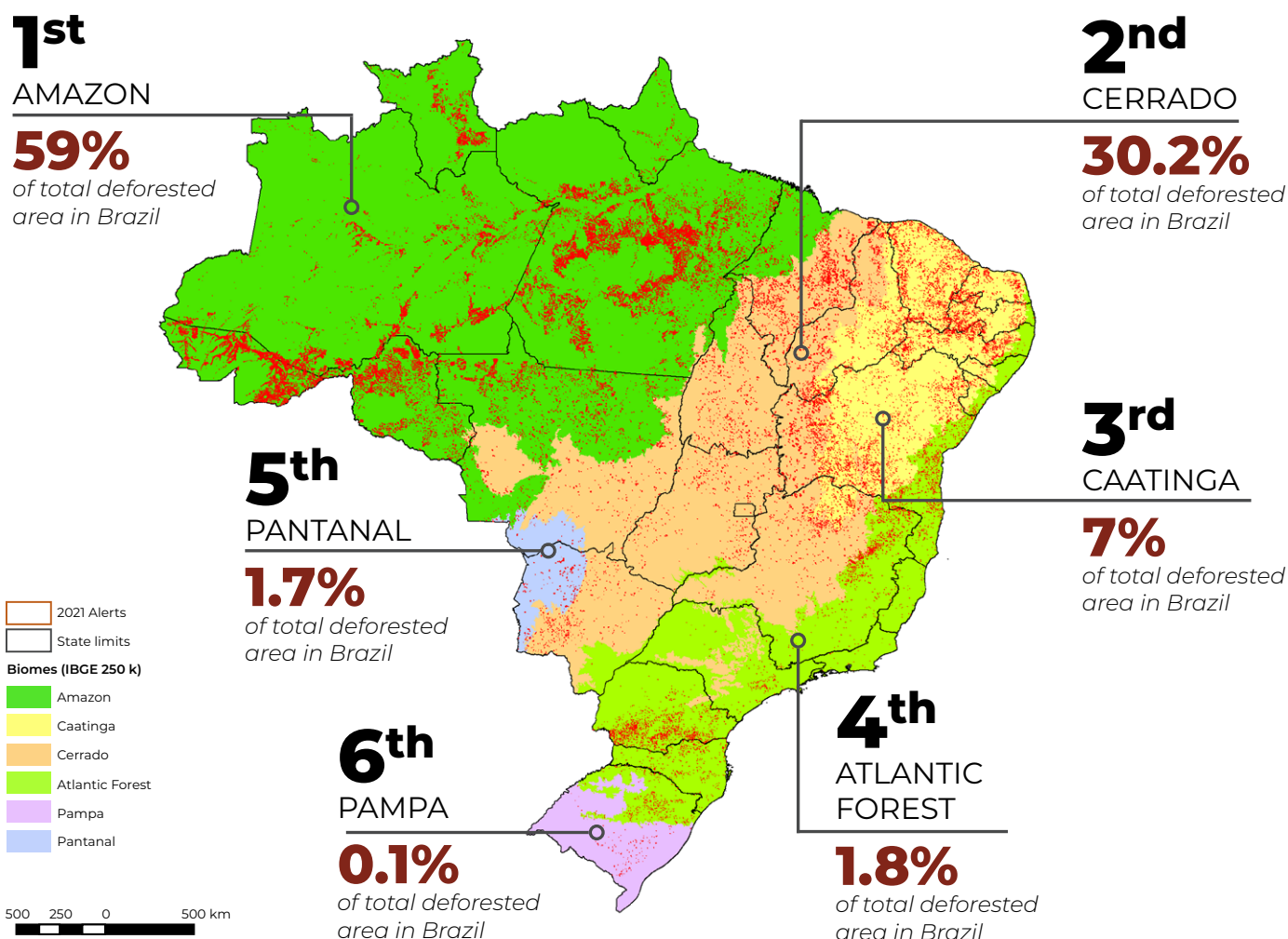
TOTAL DEFORESTED AREA ACROSS THE COUNTRY

OVER THREE YEARS (2019, 2020 AND 2021)

THE COMPLETE REPORT WITH FULL DATA IS AVAILABLE ON THE
MAPBIOMAS' ALERTA PROJECT WEBSITE AT <http://alerta.mapbiomas.org>

MOST DEFORESTED BIOMES

Deforestation Increased in all six Brazilian biomes last year when compared to 2020



Biomes	Amazon	Caatinga	Cerrado	Atlantic Forest	Pampa	Pantanal
Deforested Area 2021 (ha)	977,733	116,260	500,537	30,155	2,426	28,671

89.2%

OF THE DEFORESTED AREA IN 2021 was detected in the Amazon and Cerrado (**1,478.2 ha**).

30.2%

Although the Cerrado alerts accounts for only 9.9% of the total number, its deforested area represents roughly **ONE THIRD OF BRAZIL'S DEFORESTED AREA**.

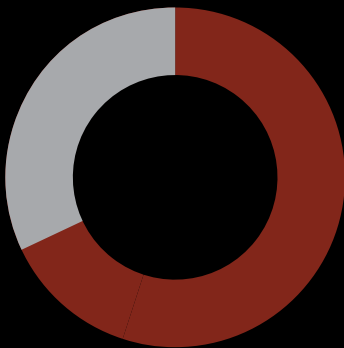
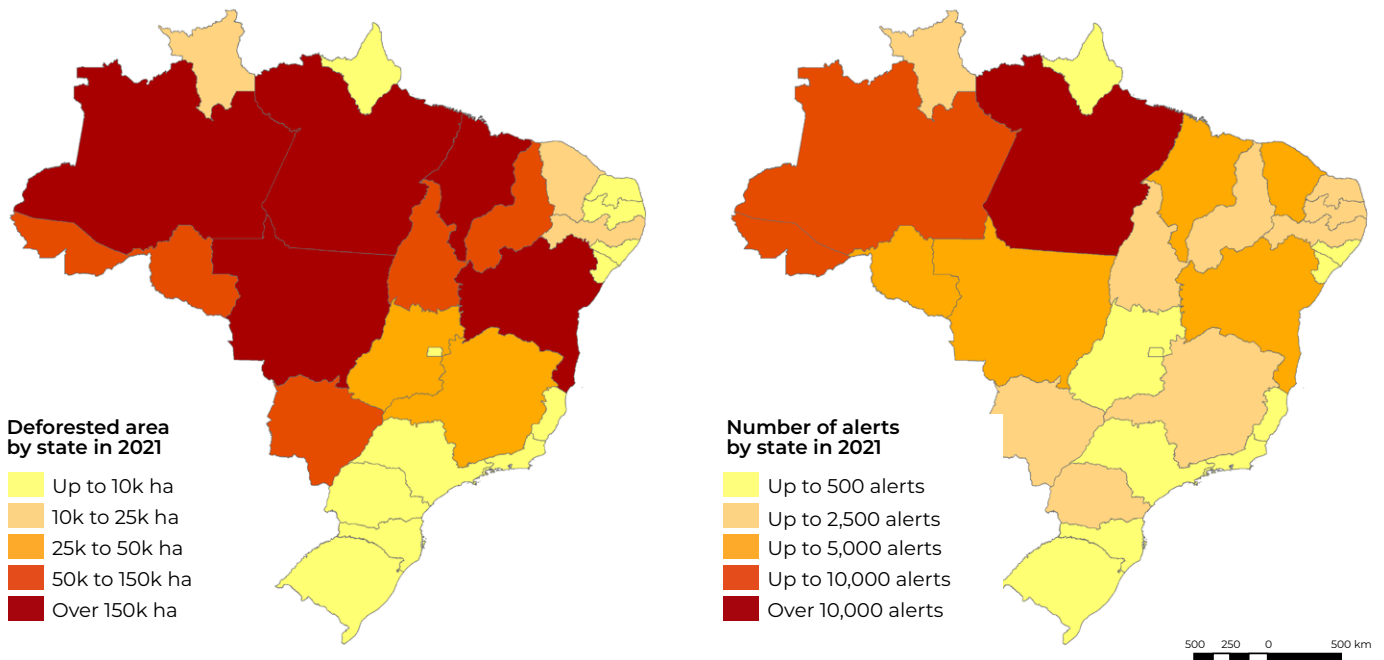
The highest **PROPORTIONAL INCREASES IN DEFORESTATION** were in the **Caatinga (88.9%)** and the **Pampa (92%)**. In the Caatinga, the increase came, in part, from the improvement of the alert detection system.



MAPBIOMAS
ALERTA

RAD 2021

FIVE BRAZILIAN STATES (PA, AM, MT, MA AND BA) ACCOUNTED ALONE FOR AROUND HALF OF THE DEFORESTATION IN THE COUNTRY IN 2021



67% OF ALL DEFORESTATION WAS DETECTED IN 5 STATES:

Pará, Amazonas, Mato Grosso, Maranhão and Bahia.



PA

Pará was the state with the largest deforested area in 2021, as well in 2020. The state lost **402,492 ha** – **24.3%** of the total deforested area in the country.



AM

Amazonas state, 4th in the 2020 ranking, came second in 2021, with **194,485 ha DEFORESTED (11.8% of Brazil's total)**.

This is the first time that **Amazonas** overtook both Mato Grosso and Maranhão and came **SECOND**. Amazonas' deforested area grew 50% in 2021 when compared to 2020, mainly due to the increased deforestation in the state's southern region, in municipalities such as **Humaitá**, with a 95.8% increase, **Lábrea** (37.4 %) and **Apuí** (61%).

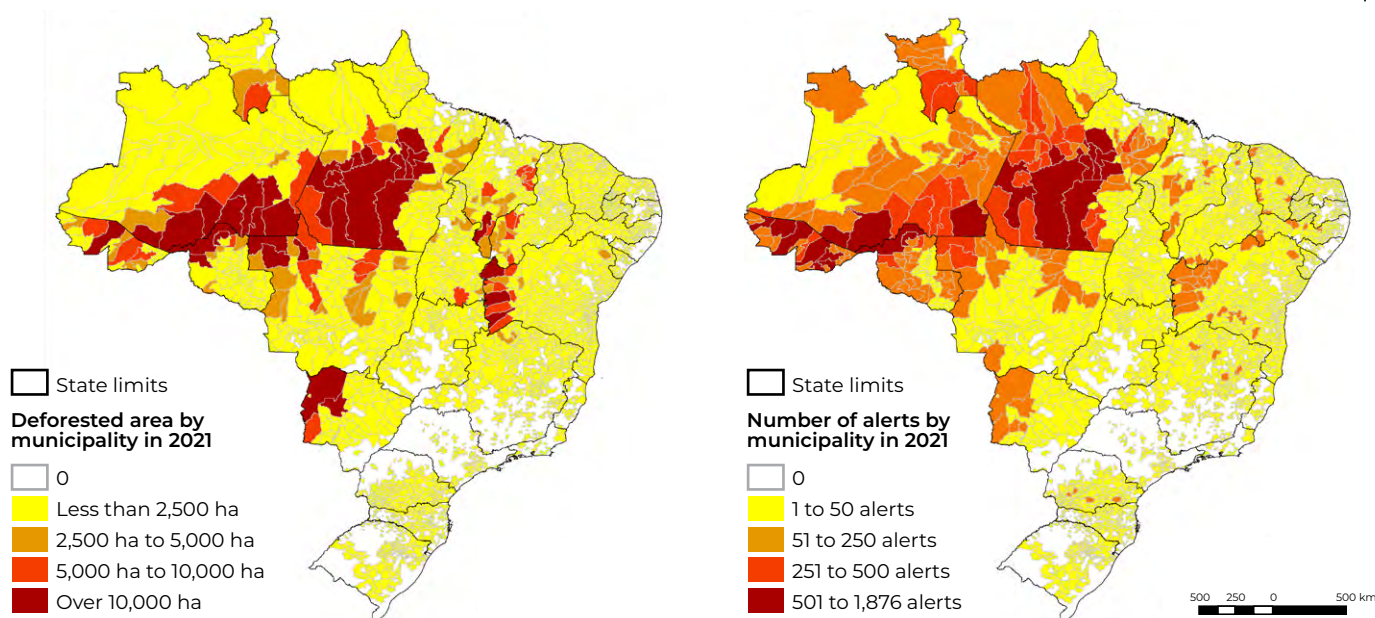
DEFORESTATION LEADERS

Ranking of deforested area in each Brazilian states in both 2020 and 2021

State	2020 Deforested Area (ha)	2020 Ranking	2021 Deforested Area (ha)	2021 Ranking	2020-2021 Increase
PARÁ	369,221	1	402,487	1 ●	9%
AMAZONAS	129,537	4	194,498	2 ↑	50%
MATO GROSSO	179,294	2	189,880	3 ↓	6%
MARANHÃO	159,801	3	166,923	4 ↓	4%
BAHIA	107,265	6	152,203	5 ↑	42%
RONDÔNIA	114,657	5	130,263	6 ↓	14%
PIAUÍ	54,219	9	69,136	7 ↑	28%
TOCANTINS	65,271	7	64,442	8 ↓	-1%
ACRE	56,577	8	64,147	9 ↓	13%
MATO GROSSO DO SUL	39,149	10	55,626	10 ●	42%
MINAS GERAIS	25,177	11	47,425	11 ●	88%
GOIÁS	23,206	12	31,472	12 ●	36%
RORAIMA	22,013	13	21,689	13 ●	-1%
CEARÁ	8,934	14	20,830	14 ●	133%
PERNAMBUCO	3,863	17	14,655	15 ↑	279%
PARANÁ	5,688	15	7,158	16 ↓	26%
PARAÍBA	2,761	18	6,827	17 ↑	147%
RIO GRANDE DO NORTE	3,972	16	6,760	18 ↓	70%
RIO GRANDE DO SUL	2,165	19	3,759	19 ●	74%
SANTA CATARINA	1,747	20	1,489	20 ●	-15%
SERGIPE	828	23	1,489	21 ↑	80%
ALAGOAS	951	22	925	22 ●	-3%
AMAPÁ	1,653	21	780	23 ↓	-53%
SÃO PAULO	406	24	469	24 ●	16%
ESPÍRITO SANTO	242	26	161	25 ↑	-33%
RIO DE JANEIRO	317	25	160	26 ↓	-50%
DISTRITO FEDERAL	16	27	127	27 ●	687%

TEN MUNICIPALITIES ACCOUNTED ALONE FOR 23% OF BRAZIL'S TOTAL DEFORESTATION IN 2021

They are all located in the Amazon biome
(5 in Pará, 3 in Amazonas state, 1 in Rondônia and 1 in Mato Grosso)



Ranking	State	Municipality	2019 Deforested Area (ha)	2020 Deforested Area (ha)	2021 Deforested Area (ha)	2020 - 2021 Variation (ha)	2020 - 2021 Variation (%)	Average daily defor- estation (ha/day)
1	PA	Altamira	54,290	59,248	63,840	4,591	7.7%	174,9
2	PA	São Félix do Xingu	40,054	46,458	52,701	6,243	13.4%	144,4
3	AM	Lábrea	32,311	35,921	49,345	13,424	37.4%	135,2
4	RO	Porto Velho	35,243	43,330	49,173	5,843	13.5%	134,7
5	PA	Novo Progresso	21,114	24,421	37,229	12,809	52.5%	102,0
6	AM	Apuí	22,046	22,019	35,448	13,429	61.0%	97,1
7	PA	Itaituba	18,725	21,030	30,174	9,144	43.5%	82,7
8	MT	Colniza	18,295	19,726	22,656	2,929	14.9%	62,1
9	PA	Portel	11,531	18,351	21,565	3,214	17.5%	59,1
10	AM	Humaitá	8,398	9,352	18,309	8,957	95.8%	50,2

ALTAMIRA (Pará)

For the 3rd consecutive year, Altamira was the municipality with the most deforestation in the country. This is where the Belo Monte Hydroelectric Power Plant is located. Altamira deforested

174 ha per day

HUMAITÁ (Amazonas)

This Amazonas' municipality had the highest proportional increase among the top 10. The deforested area there grew 95.8% in 2021 when compared to 2020.

95.8%

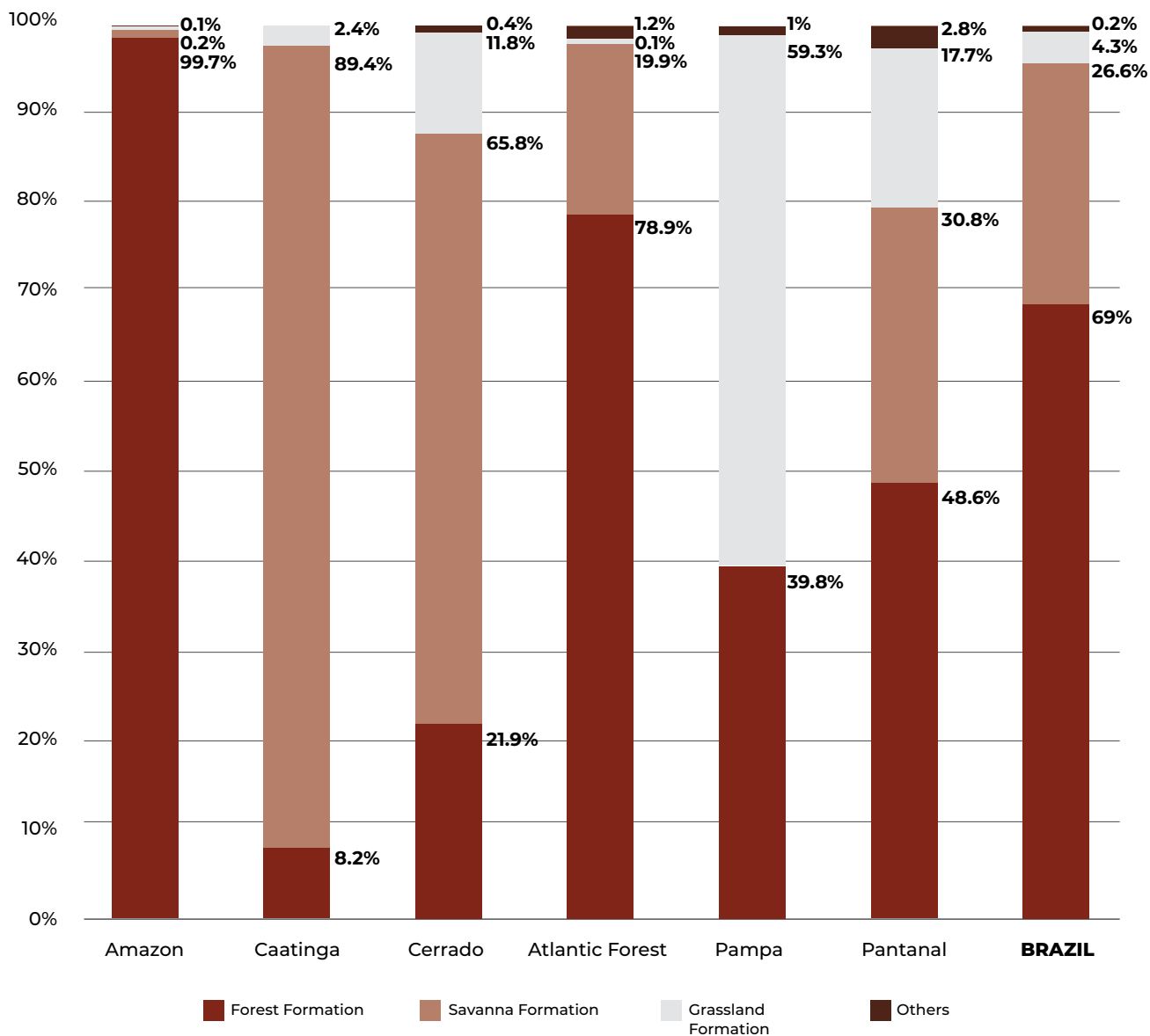
50 MUNICIPALITIES ACCOUNT FOR 49.4% OF THE TOTAL DEFORESTATION DETECTED IN BRAZIL

They are located within the Amazon deforestation arc (15 of them in Pará), as well as in western Bahia and in the Matopiba region

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11	RO	Candeias do Jamari	10,077	9,581	18,010	8,429	88.0%	49,3
12	BA	São Desidério	2,508	12,965	17,839	4,874	37.6%	48,9
13	PA	Pacajá	13,532	21,736	16,698	-5,037	-23.2%	45,7
14	AM	Novo Aripuanã	18,128	10,459	16,253	5,795	55.4%	44,5
15	BA	Formosa do Rio Preto	20,515	14,327	15,114	787	5.5%	41,4
16	AM	Boca do Acre	13,148	12,780	14,774	1,994	15.6%	40,5
17	PA	Uruará	11,785	9,890	13,708	3,818	38.6%	37,6
18	MT	Aripuanã	14,843	13,909	13,569	-340	-2.4%	37,2
19	BA	Jaborandi	7,801	6,402	13,534	7,132	111.4%	37,1
20	AM	Manicoré	6,413	7,020	13,327	6,307	89.8%	36,5
21	MA	Balsas	8,690	17,178	13,147	-4,031	-23.5%	36,0
22	MT	Nova Bandeirantes	10,259	6,465	12,970	6,505	100.6%	35,5
23	AC	Feijó	8,858	8,738	12,044	3,305	37.8%	33,0
24	PA	Rurópolis	9,124	11,417	11,664	247	2.2%	32,0
25	MS	Aquidauana	2,261	3,937	11,474	7,537	191.4%	31,4
26	PA	Anapu	7,583	11,933	11,456	-477	-4.0%	31.4
27	PA	Novo Repartimento	8,893	14,246	11,416	-2,830	-19.9%	31,3
28	AM	Canutama	5,650	5,341	11,317	5,975	111.9%	31,0
29	PA	Senador José Porfírio	9,394	14,311	10,771	-3,540	-24.7%	29,5
30	MS	Corumbá	4,136	13,671	10,695	-2,976	-21.8%	29,3
31	PA	Trairão	7,915	7,959	10,639	2,681	33.7%	29,1
32	RO	Nova Mamoré	12,476	8,315	10,311	1,996	24.0%	28,3
33	PA	Placas	8,586	11,177	10,021	-1,157	-10.3%	27,5
34	RO	Cujubim	8,309	8,590	9,816	1,226	14.3%	26,9
35	PI	Uruçuí	7,645	7,842	9,583	1,741	22.2%	26,3
36	MA	Caxias	1,373	5,566	9,507	3,940	70.8%	26,0
37	PA	Medicilândia	4,684	7,203	9,258	2,055	28.5%	25,4
38	BA	Cocos	3,779	1,181	9,022	7,841	663.8%	24,7
39	BA	Correntina	3,719	3,680	8,691	5,011	136.1%	23,8
40	MT	Marcelândia	5,232	3,453	8,257	4,803	139.1%	22,6
41	AC	Sena Madureira	8,627	7,561	8,228	667	8.8%	22,5
42	MT	Apiacás	6,858	5,541	8,001	2,460	44.4%	21,9
43	MA	Aldeias Altas	33	1,611	7,477	5,866	364.1%	20,5
44	MA	Parnarama	1,993	4,551	7,191	2,640	58.0%	19,7
45	BA	Santa Rita de Cássia	3,674	5,076	7,170	2,094	41.3%	19,6
46	AC	Tarauacá	5,695	4,830	6,964	2,134	44.2%	19,1
47	BA	Baianópolis	931	3,533	6,871	3,338	94.5%	18,8
48	PA	Jacareacanga	9,390	7,185	6,807	-379	-5.3%	18,6
49	MA	Codó	1,828	2,430	6,635	4,206	173.1%	18,2
50	MS	Porto Murtinho	5,367	3,669	6,583	2,914	79.4%	18,0

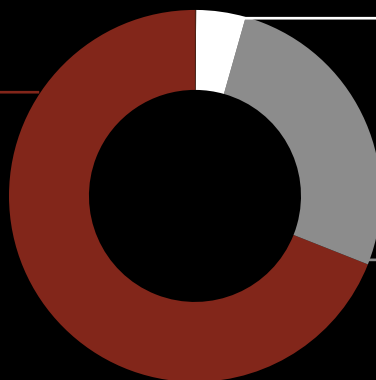
DEFORESTATION PREVAILED IN BRAZILIAN FORESTS, ALSO AFFECTING SAVANNA AND GRASSLAND FORMATIONS

Proportion of deforested area by type of native vegetation in different biomes and in Brazil, 2021



69%

of deforestation took place within areas of forest formation



4,3%

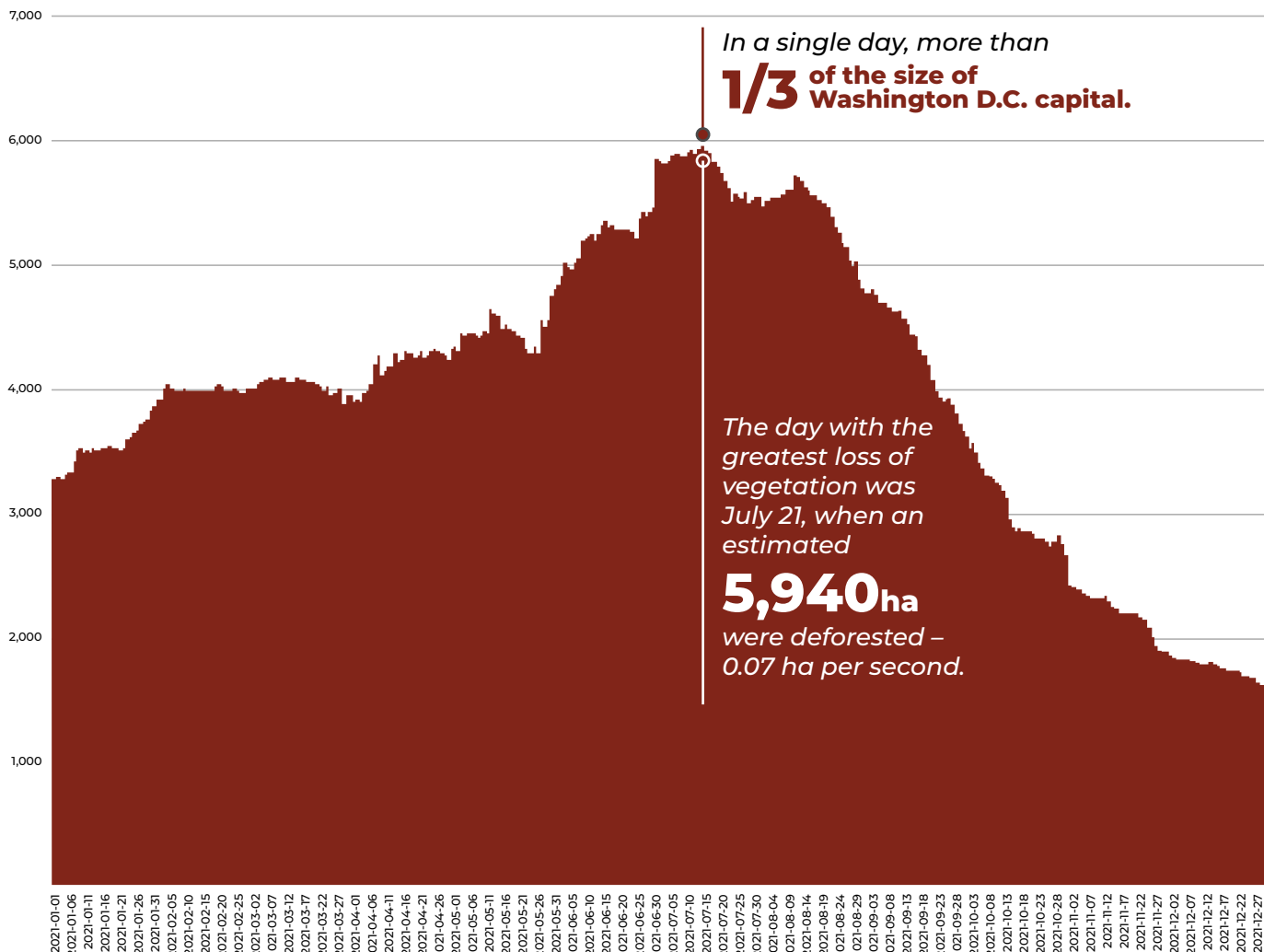
in grassland formation

26,6%

in savanna formation

DEFORESTATION IS A FAST PROCESS

Deforestation distribution throughout the year (2021)



Brazil lost 189 ha per hour in 2021 to deforestation

WHICH CORRESPONDS TO:



4.3 times the area of the Vatican



Every

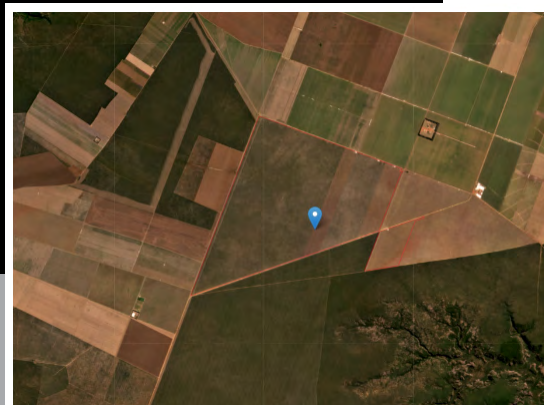


Two minutes

IN THE AMAZON ALONE, 111.6 ha were deforested per hour – or 1.9 hectares per minute, which is equivalent to roughly 18 trees cut out every second.

THE FASTEST DEFORESTATION IN 2021 took place in Currais municipality (Piauí). Between July 31 and August 29, 2,203 ha were deforested, or 76 ha per day on average.

In the **Pantanal** – the biome in which devastation was the fastest for the 2nd time – each deforestation event advanced **1.12 ha per day on average**.



Highest average speed of advance in Brazil in 2021 – Currais (PI)



DEFORESTATION ALERTS WITH MORE THAN 100 ha ARE MORE FREQUENT

Most of the deforestation alerts (82.8%) in Brazil are less than 25 ha, although they account for

only **22.8%** of the total deforested area.

Alerts related to large areas, with over 100 ha, account for 4.4% of alerts, **whilst they represent 51.7% of the total deforested area the country.**

Throughout last year, there were

3,040
deforestation events
of over 100 hectares

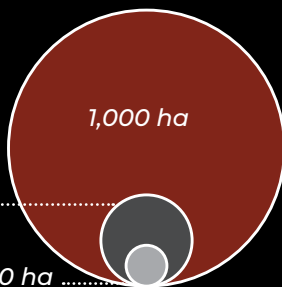
In 2021, there was a 37.8% increase in the number of alerts of **over 100 ha** when compared to 2020.

107 out of them exceeded 1,000 hectares.

FOR COMPARISON:

New York's Central Park
341 ha

São Paulo's Ibirapuera Park 160 ha

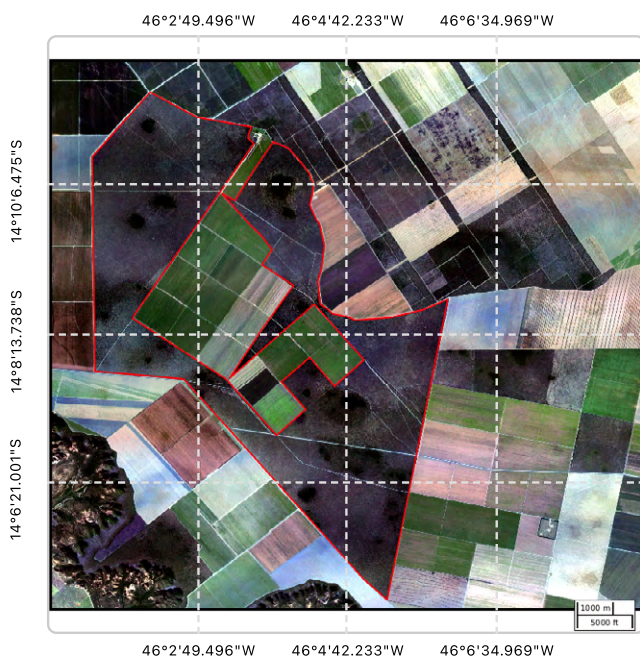


JABORANDI (BAHIA)

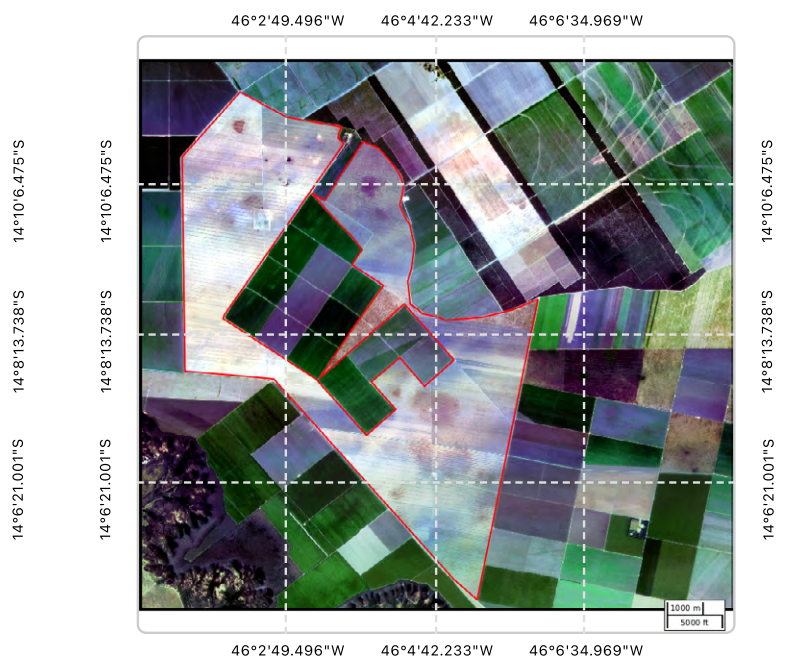
Jaborandi, a municipality located in Bahia's Cerrado, had the largest single deforestation event detected in Brazil last year, with 4,977 ha devastated. The deforested area in this 8,277-inhabitants city more than doubled in 2021 (an increase of 111%), when compared to 2020. The total deforestation area was 13,534 ha.



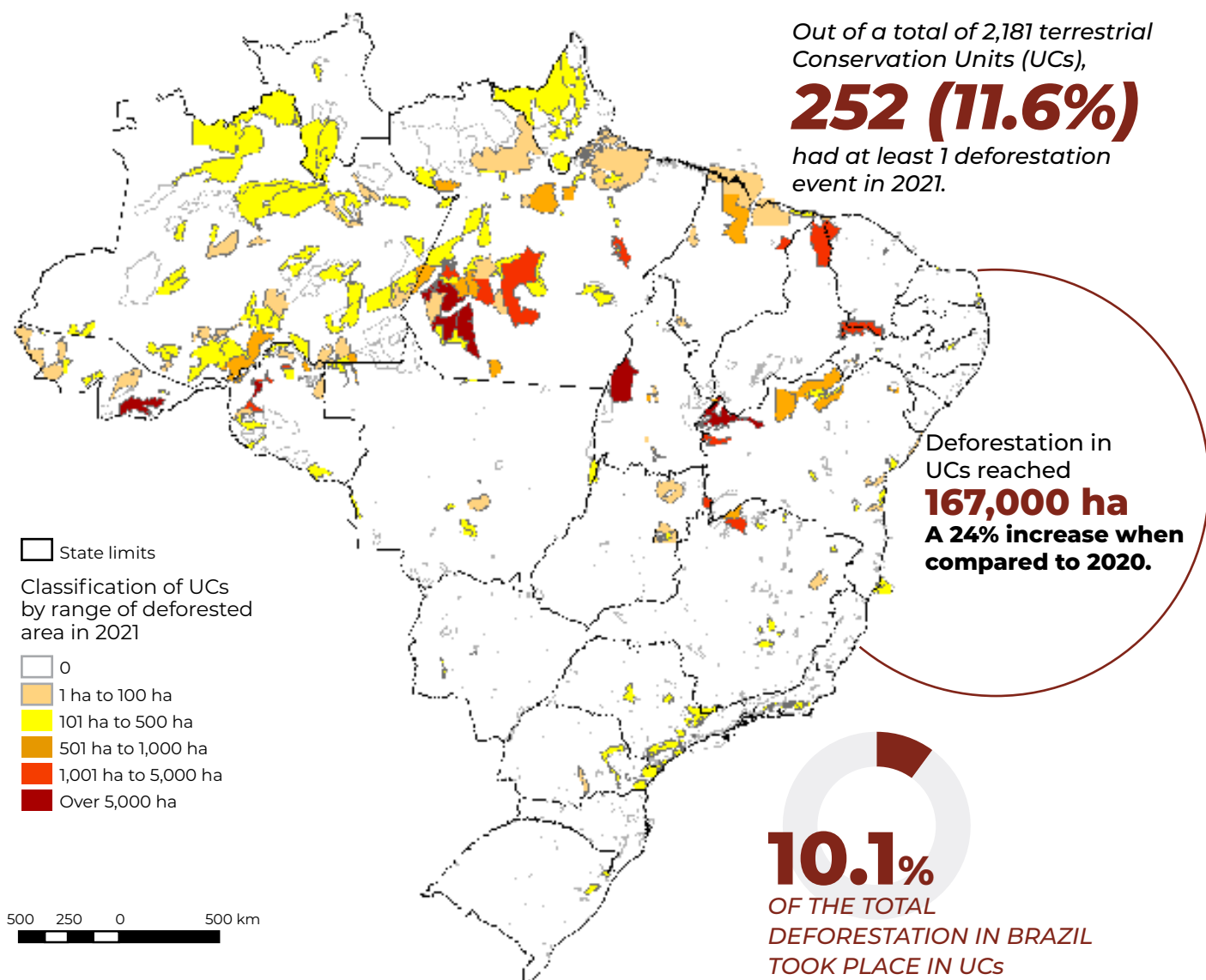
Before (Jun 20, 2020)



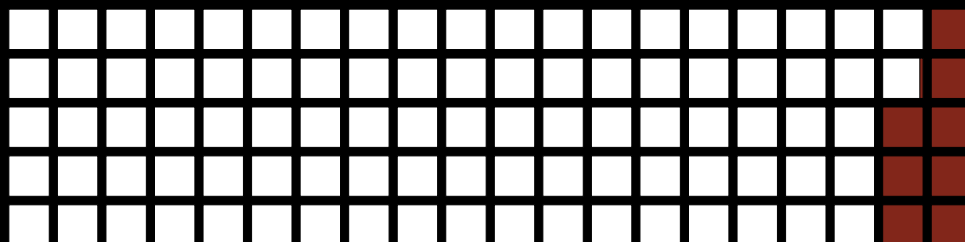
After (Mar 31, 2021)



DEFORESTATION INSIDE CONSERVATION UNITS HAS INCREASED



Although deforestation in **FULL PROTECTION CONSERVATION UNITS** accounted for

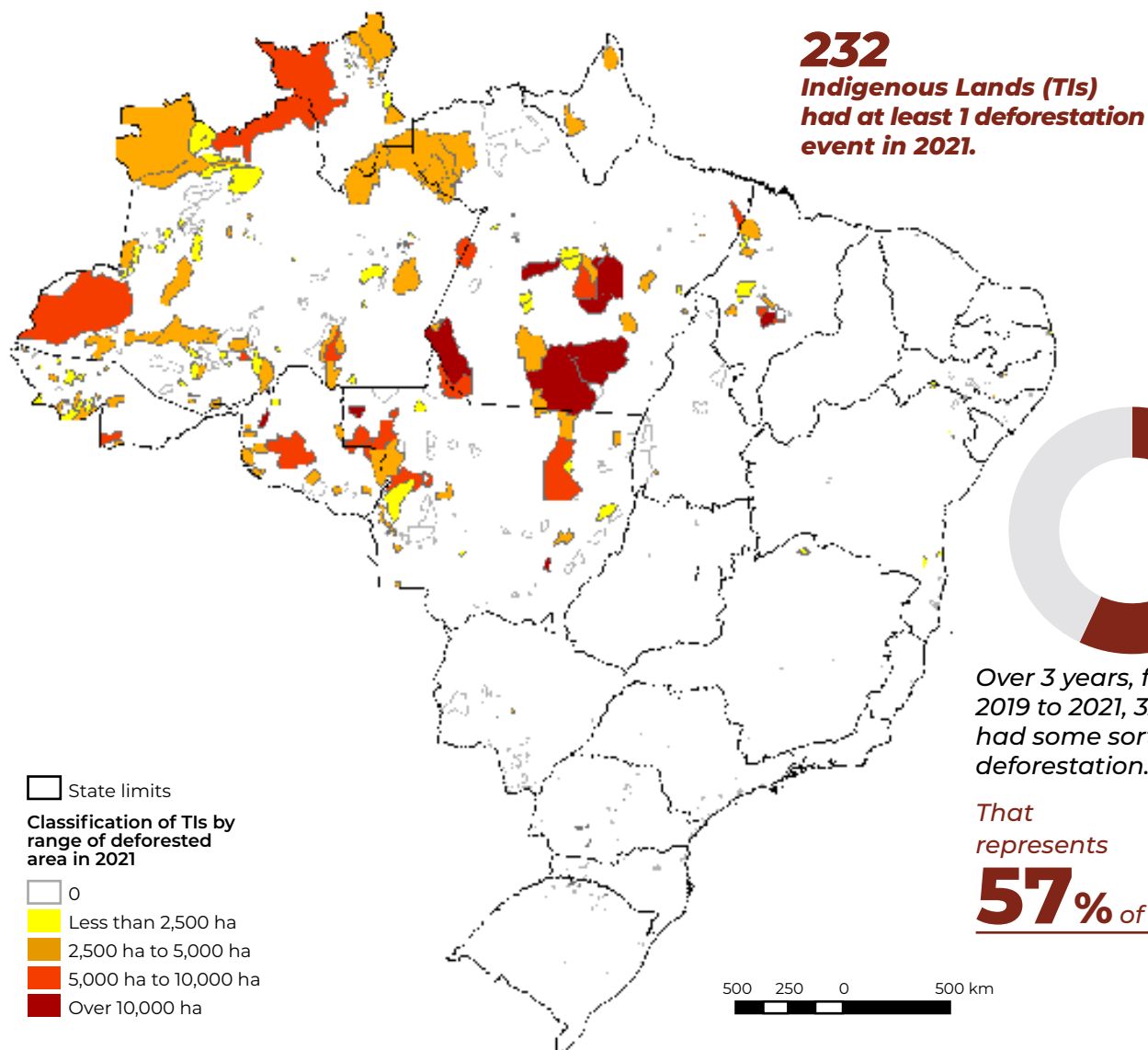


8.1% of the total observed, in these units the problem advanced the most.

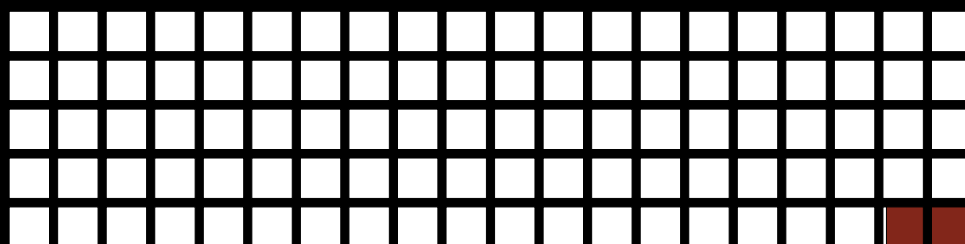
The deforested area in full protection UCs had a **69% increase in 2021** when compared to 2020, from 8,046 ha to

13,591 ha.

DEFORESTATION WAS DETECTED IN 40% OF BRAZILIAN INDIGENOUS LANDS



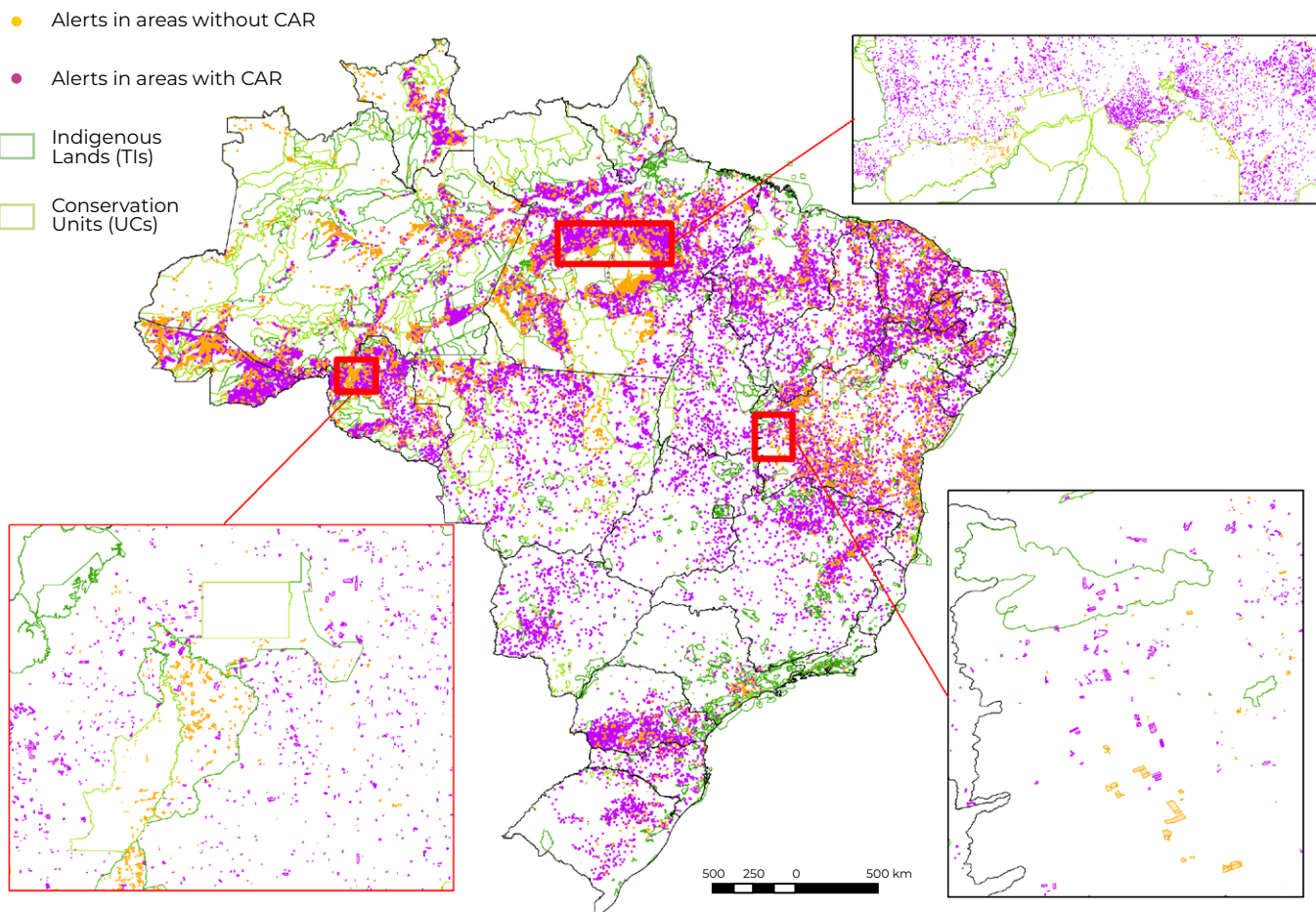
Deforestation in **INDIGENOUS LANDS** in 2021 accounted for 1.9% of the total deforested area in Brazil. **Most of the alerts and the majority of the deforested area in TIs were detected in the Amazon biome.**



1.9%
of the total
deforested area
in Brazil in 2021.

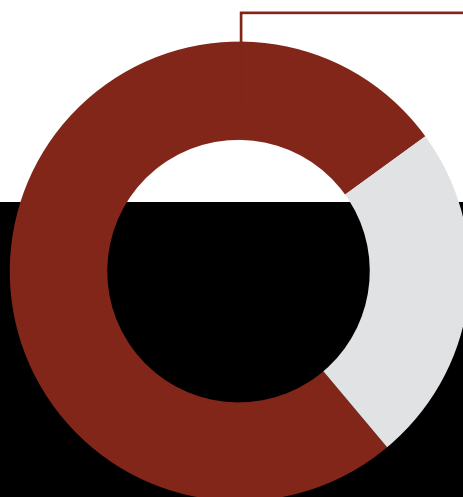
The largest deforestation events took place in the following TIs: **Apyterewa (8,247 ha)**, **Trincheira Bacajá (2,620 ha)** and **Cachoeira Seca (2,034 ha)**, all in Pará state.

THE MAJORITY OF DEFORESTATION EVENTS TOOK PLACE IN AREAS UNDER THE RURAL ENVIRONMENTAL REGISTRY (CAR)



59,181 properties registered under the Rural Environmental Registry (CAR) had deforestation events detected in 2021. This represents 0.9% of the total (6,503,840) of properties under the CAR (up to Feb 2022).

76% of all the deforestation events detected in 2021 took place in such properties.



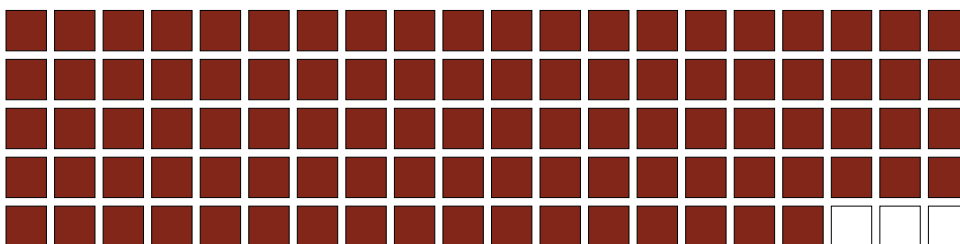
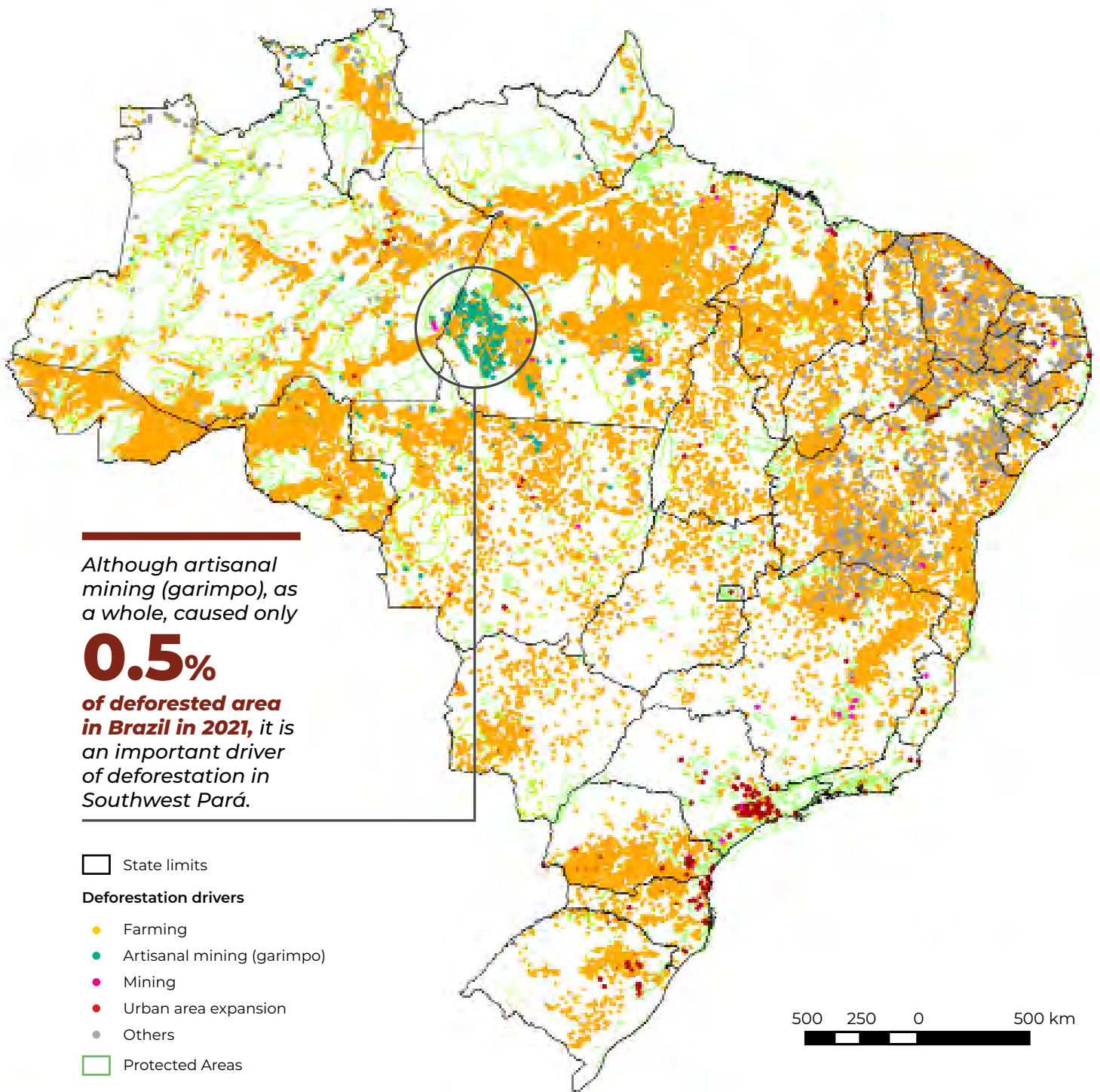
JUST OVER A THIRD (19,953) of the properties registered under the CAR with deforestation events detected in 2021 were repeated offenders, which means they also deforested in 2019 and/or 2020 – with 11.1% of them in all three years.

The area with alerts totally overlapping regions under the CAR reached 12,651 km².

From 2019 to 2021, a total of 134,318 properties had deforestation events, representing **2.1% of the rural properties** registered under the CAR.



FARMING IS THE MAIN DEFORESTATION DRIVER



97%

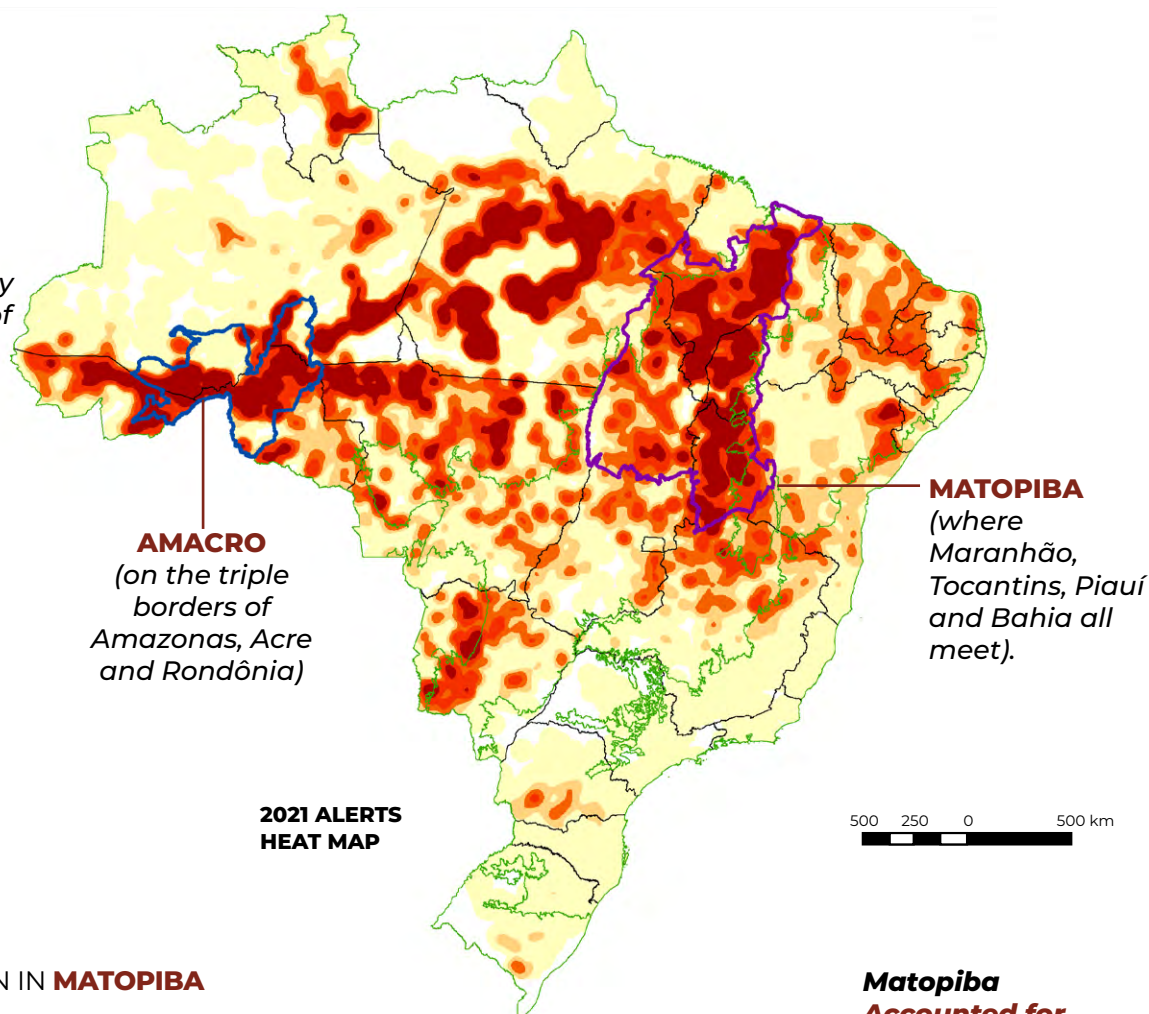
of all deforestation events registered in 2021 were driven by **farming**



AREAS OF AGRICULTURE FRONTIERS CONCENTRATE DEFORESTATION

Two regions

in 2021 characterized by the expansion of the agricultural frontier have pressured on deforestation:



2021 ALERTS
HEAT MAP

DEFORESTATION IN MATOPIBA

Ranking	2019 (ha)	2020 (ha)	2021 (ha)	Brazil % (2021)	Cerrado biome % (2021)	2020-2021 Variation
Alerts	4,598	5,795	5,206	7.5%	56.7%	-18.2%
Deforested areas (ha)	276,805	337,734	391,559	23.6%	72.5%	14.0%

Matopiba

Accounted for

23.6% of
the total deforested
areas in Brazil and
for 72.5% in the
Cerrado biome alone,
with a 14% increase
in deforestation in
2021 when compared
to 2020.

DEFORESTATION IN AMACRO

Ranking	2019 (ha)	2020 (ha)	2021 (ha)	Brazil % (2021)	Amazon biome % (2021)	2020-2021 Variation
Alerts	7,079	7,779	6,858	9.8%	14.7%	-13.0%
Deforested areas (ha)	155,060	158,554	203,143	12.2%	20.8%	28.8%

Amacro

Concentrated

12.2% of
the total deforested
areas in the country
and 20.8% in the
Amazon alone.
Deforestation in
2021 in the region
increased 28.8% when
compared to 2020.

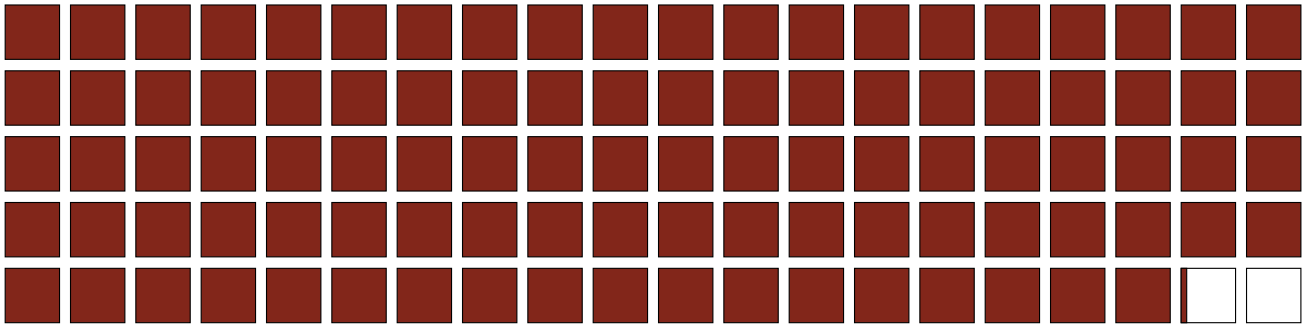


ALMOST ALL DEFORESTATION EVENTS RECORDED IN 2021 SHOW EVIDENCE OF IRREGULARITY AND ILLEGALITY

In 2021, deforestation in Brazil continued to be an essentially illegal activity.

The deforested areas with signs of illegality accounted for

over 98% of the total.



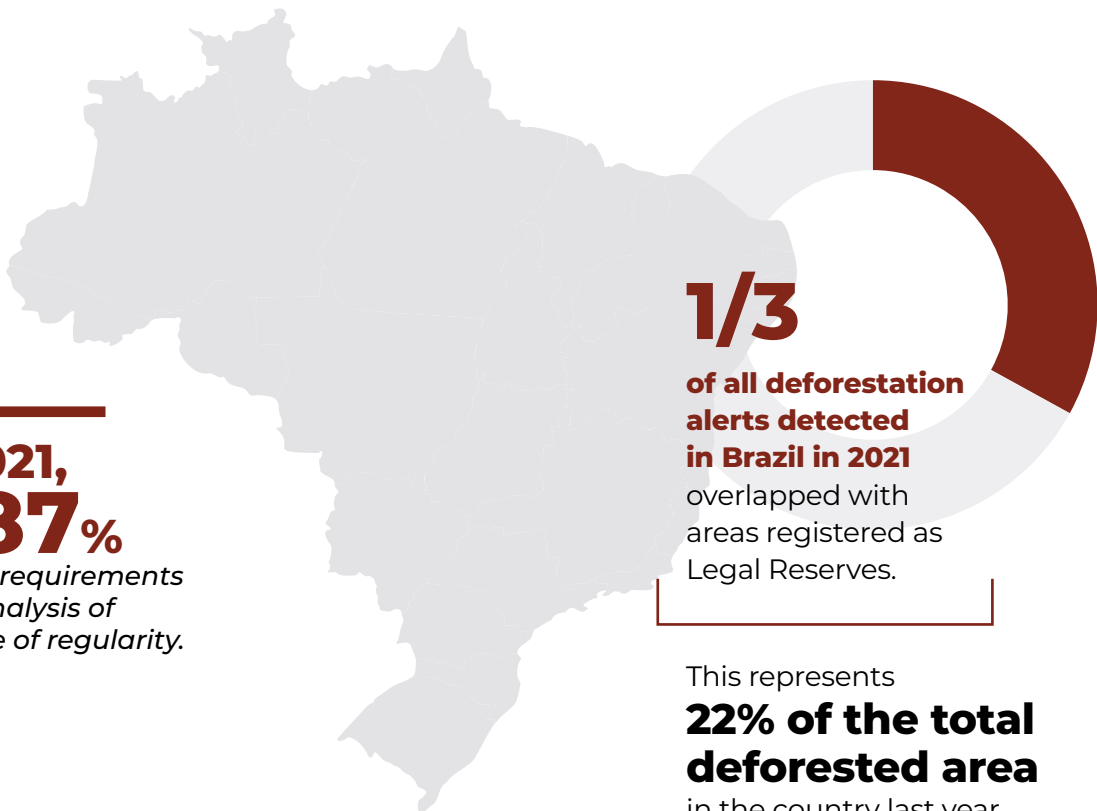
In order to be considered legal,

deforestation must be authorized and cannot occur within protected areas on rural properties (Legal Reserve and Permanent Preservation Area, according to Brazil's Forests Code) as well as in public protected areas (Conservation Units and Indigenous Lands), among other limitations.

Authorization is mandatory for legal activities in Brazil.

**In 2021,
0.87%**

met the requirements of the analysis of evidence of regularity.



**1/3
of all deforestation alerts detected in Brazil in 2021**

overlapped with areas registered as Legal Reserves.

This represents
22% of the total deforested area
in the country last year.

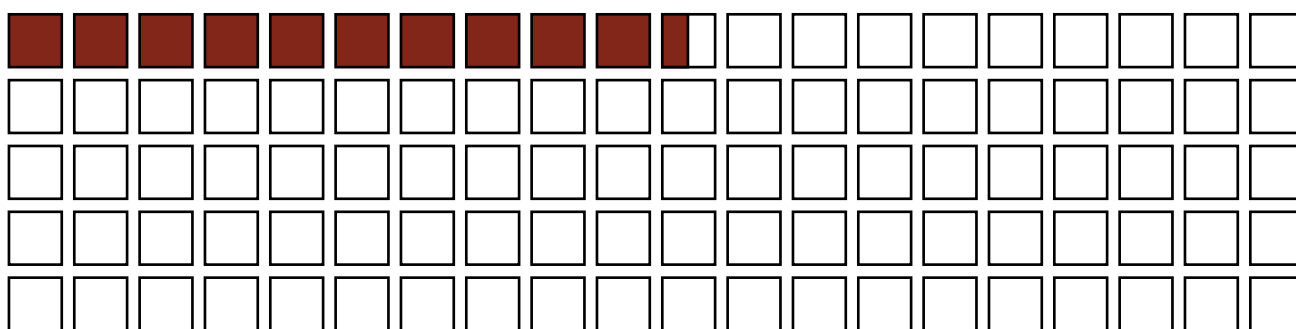
LAW ENFORCEMENT ACTIONS BY IBAMA HAVE BEEN REGISTERED FOR 5.2% OF DEFORESTED AREAS

STAGNATION IN BOTH ENFORCEMENT AND ACCOUNTABILITY FOR ILLEGAL DEFORESTATION AT THE FEDERAL LEVEL CONTINUED IN 2021.

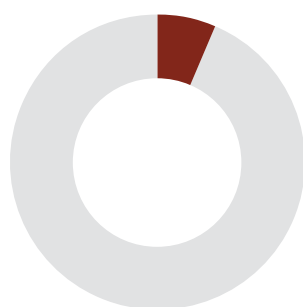
Up to May 2022, only

5.2% of deforested areas have been targets of embargoes or fines imposed by Ibama.

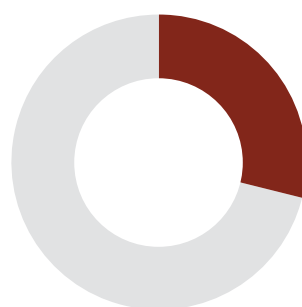
Embargoes and fines imposed by both Ibama and ICMBio up to May 2022 accounted, altogether, for roughly 2.4% of the alerts, or 10.5% of the deforested area identified from 2019 to 2021.



The most effective action took place within the **11 priority municipalities of the Amazon Council**, where fines or embargoes were applied in 6.5% (2,159) of the deforestation events observed from 2019 to 2021, representing 29.1% of the deforested area in the period.



6.5%
2,159 alerts

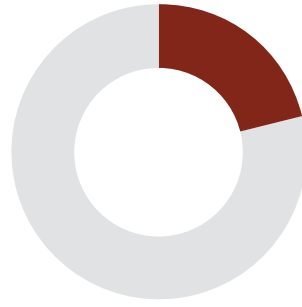


29.1%
of the area
deforested over
the last 3 years

The **52 municipalities defined by the Ministry of the Environment as priorities for fighting deforestation in the Amazon**. However, there were actions related to only 4% of the alerts, or 21.2% of the deforested area throughout the three years.



4%
3,517 alerts



21.2%
of the area
deforested in
the period

PROGRESS HAS BEEN OBSERVED IN STATE-LEVEL ACTIONS

BRAZILIAN STATES HAVE BEEN ACTING TO FIGHT DEFORESTATION.

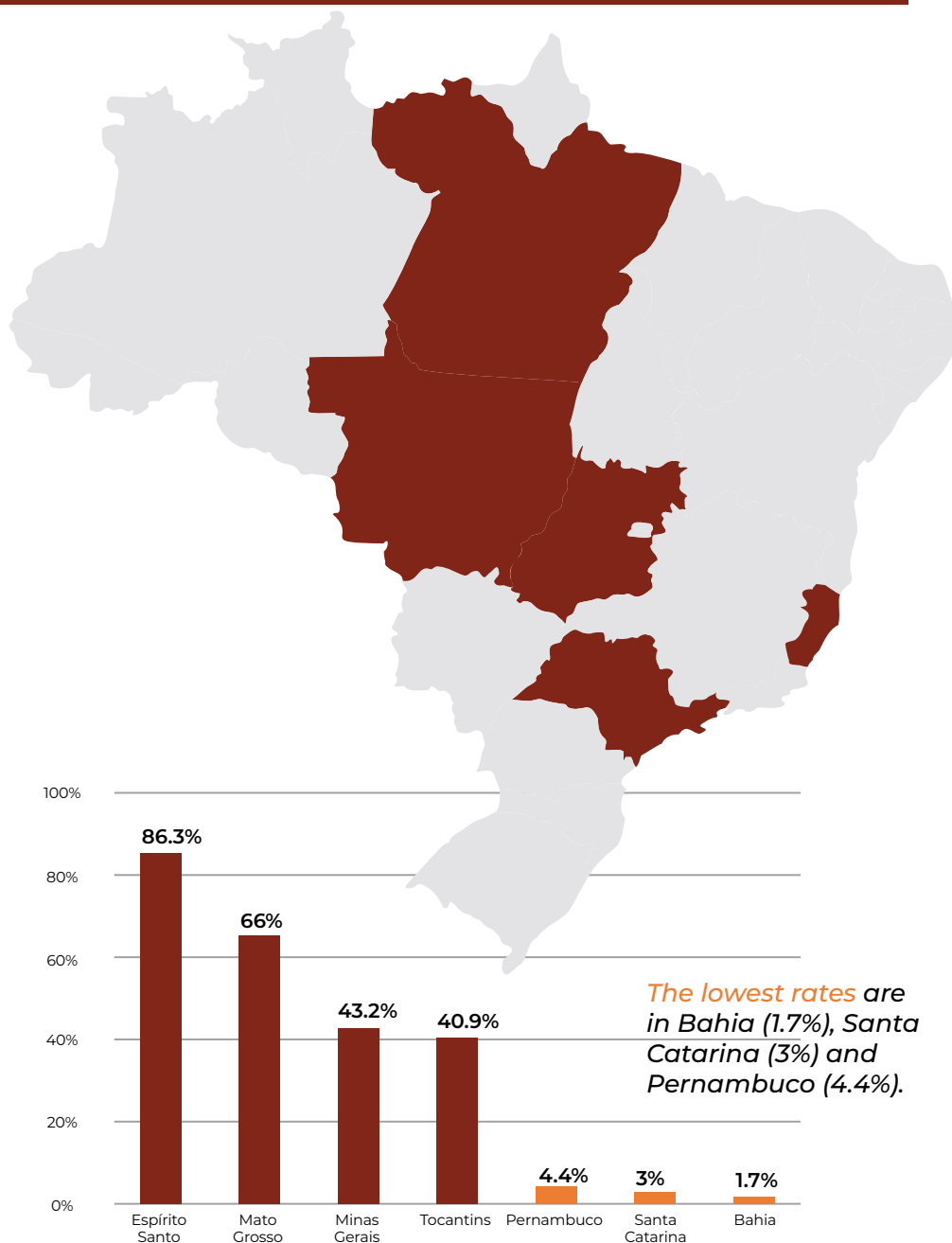
Information, however,
is still scarce and poorly
available. Only two states
publish complete and
up-to-date data online:
Mato Grosso and Goiás.

Pará and São Paulo
both have quality,
although not complete,
information.

Espírito Santo
state had the highest
ratio of deforestation
with some sort
of action

86.3%

followed by Mato
Grosso (66%), Minas
Gerais (43.2%) and
Tocantins (40.9%).



ATLANTIC FOREST OPERATION carried
out by Prosecution Offices and state
agencies within the 17 states in the
biome, increased 30% the deforested
area under enforcement in 2021,
when compared to 2020, while...

The total of
imposed fines
grew **70%**

THREE QUARTERS OF THE DEFORESTATION DETECTED FROM 2019 TO 2021 CONTINUE WITH NO LAW ENFORCEMENT ACTIONS

When considering actions taken by all federal, state and Prosecution Offices, the number of deforestation alerts detected between 2019 and 2021 that corresponded to enforcement actions rose to 7.7% of the total, or 27.1% of the deforested areas.



State	Ratio of deforested areas detected per year with federal or state actions by May 2022				Ratio of alerts detected per year with federal or state actions by May 2022			
	2019	2020	2021	2019 to 2021 (ha)	2019	2020	2021	2019 to 2021
ACRE	17.8%	16.3%	9.2%	14.3%	7.3%	6.7%	3.5%	5.9%
ALAGOAS	93.4%	32.6%	22.3%	29.5%	83.3%	18.3%	9.8%	17.4%
AMAPÁ	21.6%	5.2%	0	10.3%	2.0%	1.1%	0	1.2%
AMAZONAS	41.3%	20.1%	15.9%	24.2%	9.2%	2.7%	3.3%	4.7%
BAHIA	3.2%	1.7%	1.0%	1.7%	2.3%	1.6%	1.0%	1.4%
CEARÁ	36.8%	22.2%	12.6%	16.1%	20.7%	7.5%	2.4%	3.7%
DISTRITO FEDERAL	27.5%	16.4%	24.2%	21.9%	25.0%	11.5%	50.0%	15.6%
ESPIRITO SANTO	94.6%	100.0%	60.4%	86.3%	94.7%	100.0%	69.7%	88.4%
GOIÁS	39.0%	29.4%	18.1%	29.1%	18.6%	10.9%	12.6%	14.0%
MARANHÃO	15.9%	31.5%	15.9%	22.1%	3.2%	3.4%	3.1%	3.30%
MATO GROSSO	58.4%	69.1%	71.2%	66.0%	31.6%	34.2%	36.8%	34.0%
MATO GROSSO DO SUL	2.3%	3.3%	31.0%	15.4%	4.2%	2.8%	28.8%	14.6%
MINAS GERAIS	33.4%	40.4%	50.3%	43.2%	27.8%	26.6%	24.9%	26.0%
PARÁ	27.0%	28.1%	19.7%	24.7%	6.0%	4.9%	3.5%	4.8%
PARAÍBA	100.0%	7.6%	10.2%	9.5%	100.0%	3.5%	3.8%	3.9%
PARANÁ	29.6%	19.2%	17.2%	19.8%	15.4%	16.8%	9.3%	11.8%
PERNAMBUCO	0	2.2%	5.0%	4.4%	0	1.2%	1.1%	1.1%
PIAUÍ	5.6%	8.4%	8.7%	7.8%	1.0%	0.9%	1.3%	1.1%
RIO DE JANEIRO	7.5%	31.4%	40.4%	28.8%	14.3%	35.7%	24.0%	27.3%
RIO GRANDE DO NORTE	51.4%	17.5%	10.6%	13.4%	25.0%	4.6%	4.4%	4.5%
RIO GRANDE DO SUL	37.8%	16.0%	0.6%	11.4%	16.5%	6.9%	1.2%	5.9%
RONDÔNIA	19.7%	16.5%	12.3%	16.1%	7.6%	5.5%	4.4%	5.9%
RORAIMA	13.6%	22.8%	13.4%	16.6%	5.6%	4.7%	5.2%	5.2%
SANTA CATARINA	2.4%	3.8%	2.2%	3.0%	1.5%	1.4%	1.6%	1.5%
SÃO PAULO	43.0%	18.7%	24.0%	27.1%	37.0%	21.1%	17.6%	21.8%
SERGIPE	30.1%	21.0%	2.4%	11.3%	33.3%	14.3%	1.6%	7.8%
TOCANTINS	33.6%	44.1%	49.6%	40.9%	15.9%	17.0%	25.1%	18.2%
BRAZIL	30.0%	28.6%	23.5%	27.1%	9.6%	7.3%	6.5%	7.7%

HOW THE ANALYSIS WAS DONE

1. IDENTIFICATION AND AGGREGATION OF DEFORESTATION ALERTS DETECTED BY THE FOLLOWING SOURCES IN ALL BRAZILIAN BIOMES IN 2021:

Real-Time Deforestation Detection System (DETER), INPE

Deforestation Alert System (SAD), AMAZON

Caatinga Deforestation Alert System (SAD Caatinga), Geodatin and UEFS

Atlantic Forest Deforestation Alert System (SAD Atlantic Forest), SOS Mata Atlântica and ArcPlan

Pantanal Deforestation Alert System (SAD Pantanal), SOS Pantanal and ArcPlan

Global Land Analysis and Discovery (GLAD), Maryland University

Deforestation Radar Indication System (SIRAD), Instituto Socioambiental (ISA)

In all, 274,000 alerts were identified by the seven systems above; when aggregated, the data resulted in 178,000 alerts for validation

2. VALIDATION, REFINEMENT AND IDENTIFICATION OF THE TIME INTERVAL OF DEFORESTATION ALERTS BASED ON DAILY HIGH RESOLUTION SPATIAL SATELLITE IMAGES

3. CROSSING **DEFORESTATION DATA** WITH TERRITORIAL
(BIOMES, STATES AND CITIES), LAND TENURE (CAR/ RURAL
ENVIRONMENTAL REGISTRY, CONSERVATION UNITS AND INDIGENOUS
LANDS) AND **ADMINISTRATIVE SITUATION** (EXISTENCE OF
AUTHORIZATION, NOTICE OR EMBARGO)

4. GENERATION OF **COMPLETE REPORTS** FOR **EACH DEFORESTATION ALERT**

THE COMPLETE REPORT WITH FULL DATA IS AVAILABLE ON THE MAPBIOMAS
ALERTA WEBSITE AT <http://alerta.mapbiomas.org>