

# Acre, Brazil



## Jurisdictional indicators brief

State area:	164,124 km <sup>2</sup> (1.93% of Brazil)
Original forest area:	163,568 km <sup>2</sup>
Current forest area (2019):	143,143 km <sup>2</sup> (87.2% of Acre)
Yearly deforestation (2019)	682 km <sup>2</sup>
Yearly deforestation rate (2019)	0.48%
Interannual deforestation change (2018-2019)	+54%
Accumulated deforestation (2001-2019):	8,096 km <sup>2</sup>
Protected conservation areas:	52,678 km <sup>2</sup> (32.1% of Acre)
Carbon stocks (2015):	1,772 millions tons (above ground biomass)
Representative crops (2018):	Cassava (667,700 tons); Maize (80,631 tons); Sugarcane (11,989 tons)
Value of agricultural production (2016):	\$464,340,218 USD
More on jurisdictional sustainability	<a href="#">State of jurisdictional sustainability</a>

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## Forest and people

In 2019, the estimated area of tropical forest in the state of Acre was 143,143 km<sup>2</sup>, equivalent to 87.2% of the state's total area, and to 4.5% of the tropical forest remaining in the nine states of the Brazilian legal Amazon. The total accumulated forest lost during the period 2001-2019 was 8,096 km<sup>2</sup>, equivalent to 5.2% of the forest area remaining in 2001. Acre concentrated about 4.7% of the carbon reserves stored in the biomass of the Brazilian tropical forest (about 1,772 mt C as of 2019).

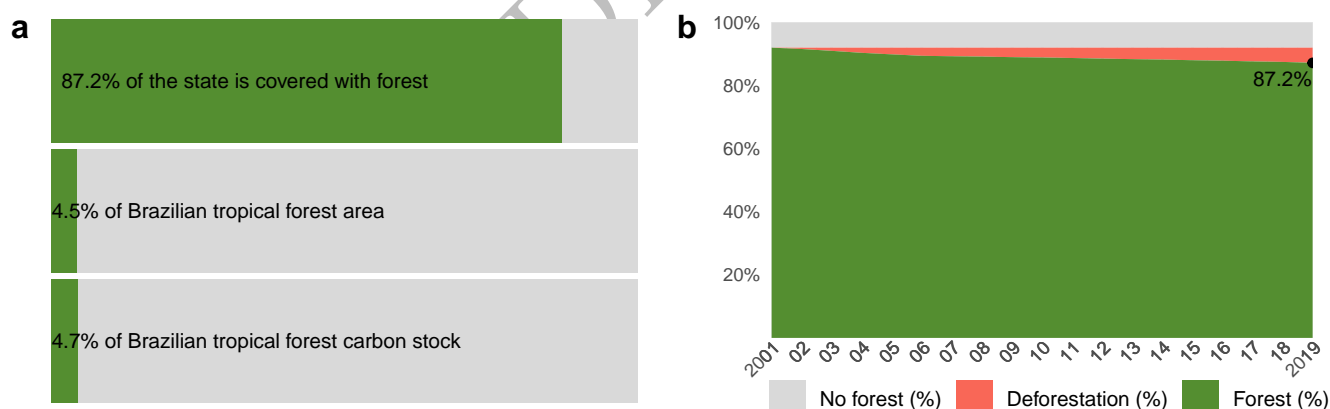


Figure 1: a) forest share and b) transition of forest to deforestation over the last years

There were 0.9 million people living in Acre as of 2020, distributed in 19 municipalities, with 0.4 million people living in the capital city of Rio Branco. The state has formally designated conservation areas and indigenous territories, which respectively represent 32% and 15% of the state. There were an estimated 15,705 indigenous people living in the state in 2010 (see Figure 2).

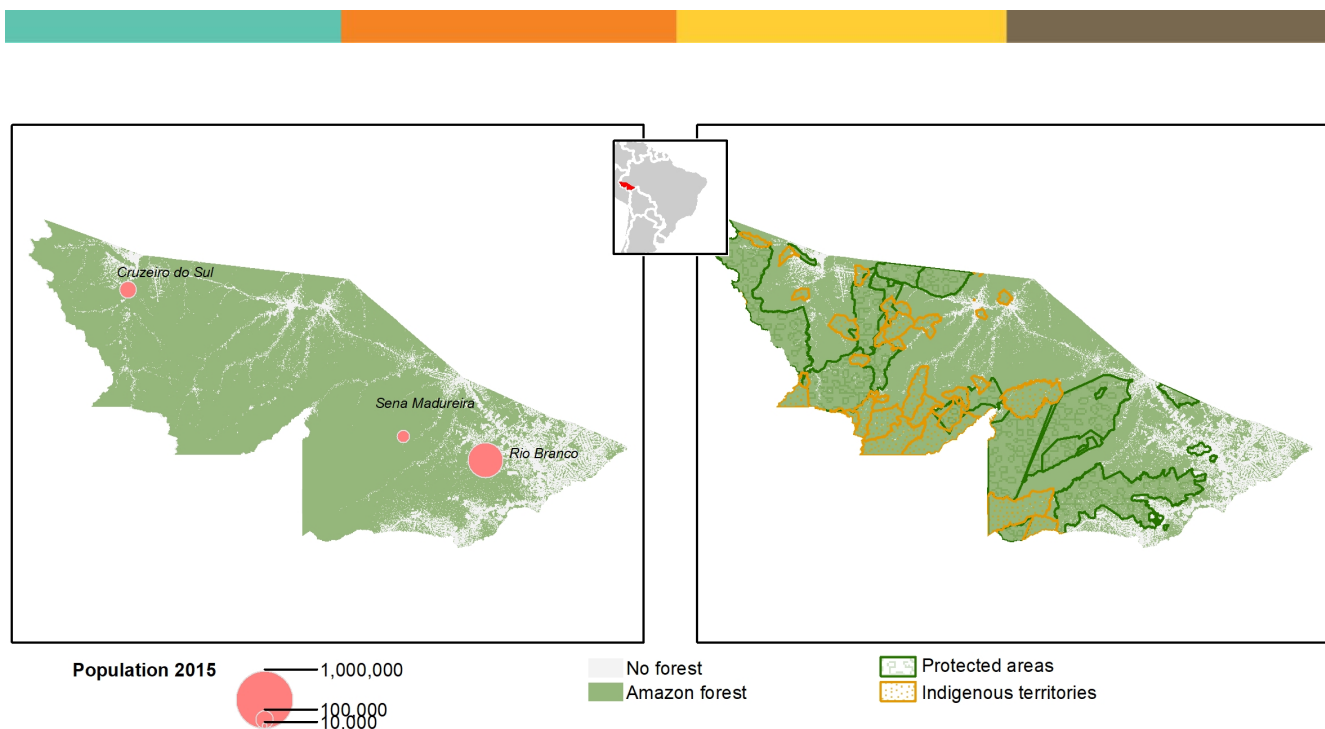


Figure 2: Map of most populated places (> 40,000 people) and indigenous and protected areas in Acre

## Deforestation

Acre reduced its yearly deforestation rate rapidly after reaching a maximum of 1,078 km<sup>2</sup> in 2003. In 2009 the state reached the minimum yearly forest loss with 167 km<sup>2</sup>. After this, deforestation increased moderately until 2017 but saw larger jumps in deforestation in 2018 and 2019. The deforestation in the state of Acre in 2019 was 682 km<sup>2</sup> which represented 7% of the total deforestation in the legal Amazon. While deforestation in the Brazilian legal Amazon in 2019 saw the largest interannual increase in the last decade (34%) the deforestation in Acre increased at a much larger rate (54%), second only to Roraima. The last two years, 2018 and 2019 represent the largest interannual increase in deforestation for the state. The 2019 deforestation rate in the state was 0.48% slightly larger than the average of the legal Amazon states in 2019 (0.43%).

The state's current deforestation is 13% above the reference baseline 1996-2005, and 58% above the reference baseline 1996-2015 (see Figure 3).

58% of the deforestation is located in the five most affected municipalities in the state (see Figure 4). The municipality of Feijó consistently registered the largest loss of tropical forest, reaching a maximum in 2019 with 98 km<sup>2</sup>. In 2019 the municipality of Feijó had the largest yearly deforestation.

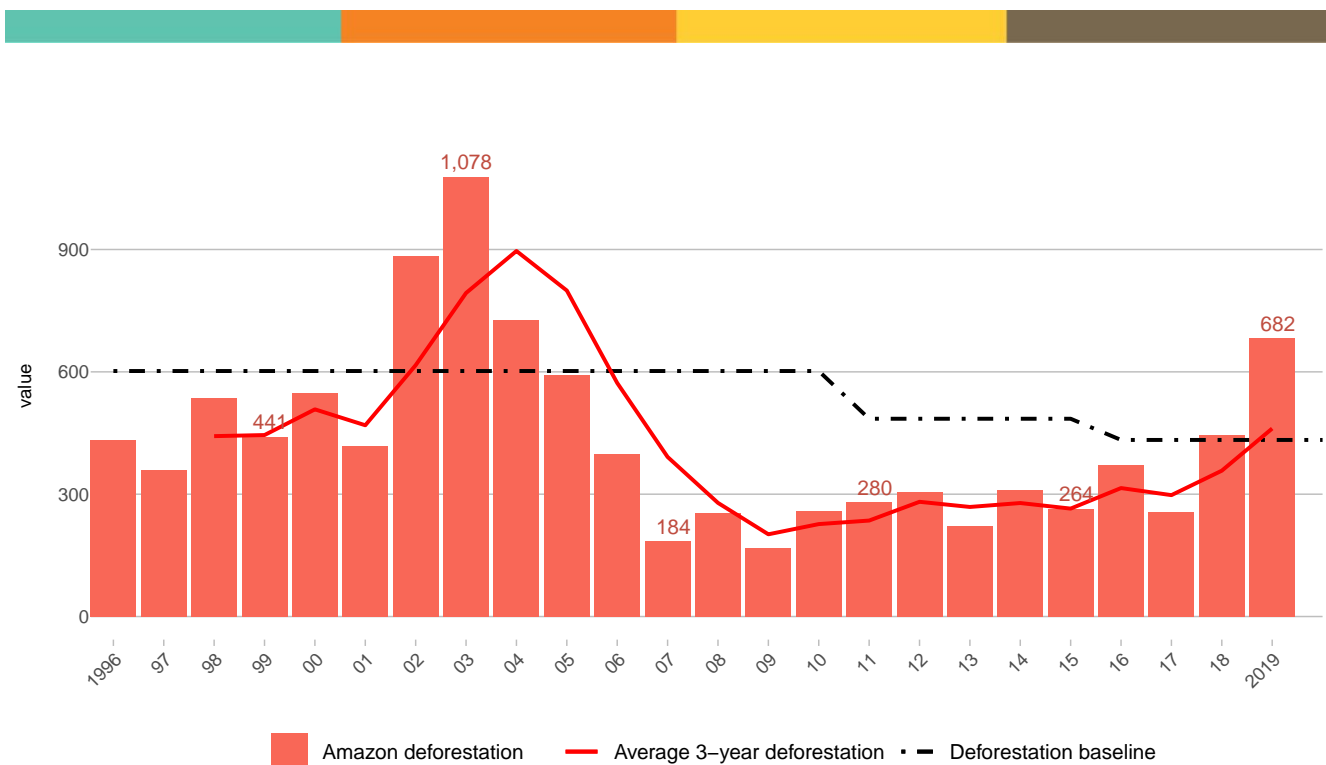


Figure 3: Yearly deforestation ( $km^2$ ) and deforestation baseline

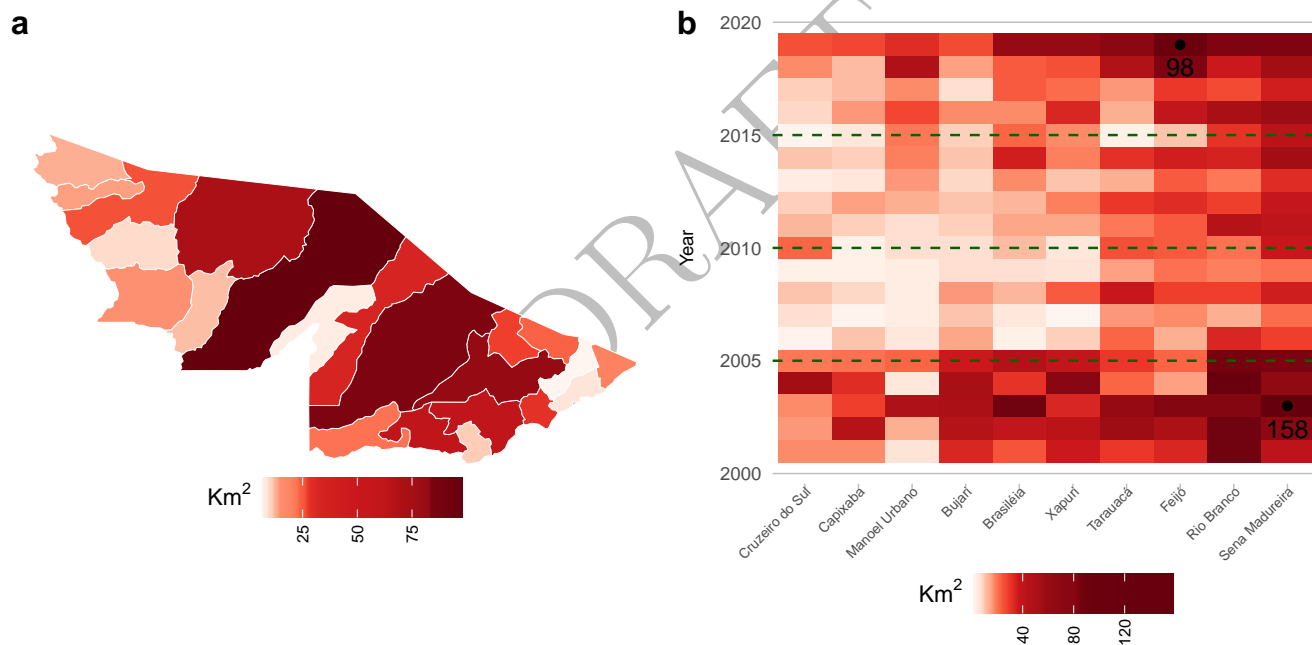
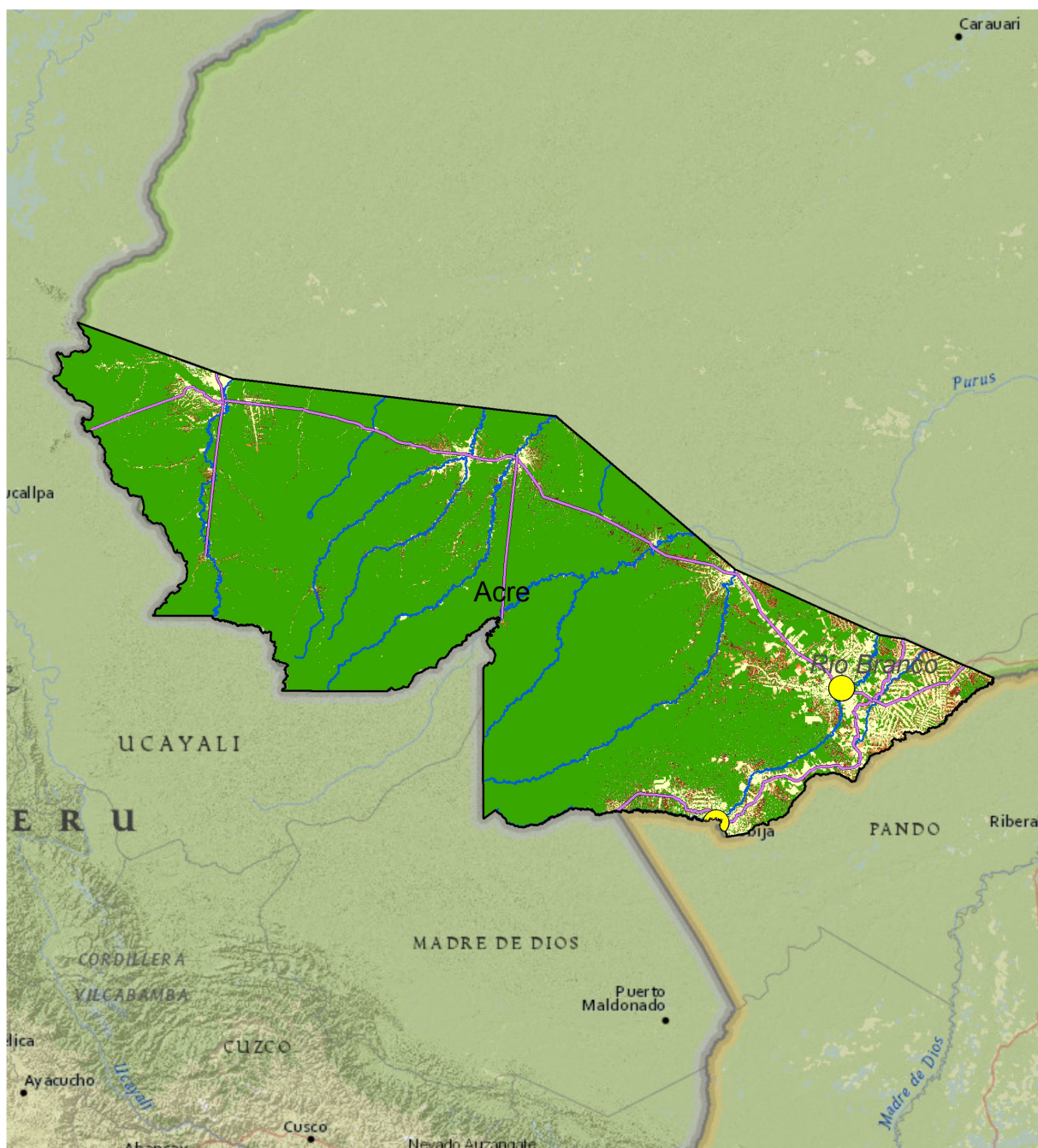


Figure 4: a) Yearly deforestation by municipalities in 2019 b) Yearly deforestation in top 10 most affected municipalities ( $km^2$ )



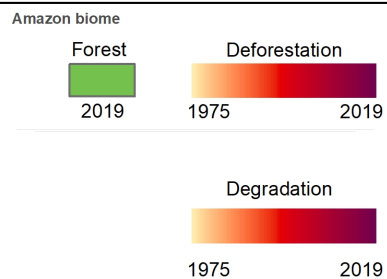
Table 1: Forest and deforestation indicators in the state of Acre

Year	Forest (km <sup>2</sup> )	Deforestation	Deforestation rate (%)	Annual variation (%)
2001	151,047	419	0.28	-23.4
2002	150,341	883	0.59	110.7
2003	149,382	1,078	0.72	22.1
2004	148,354	728	0.49	-32.5
2005	147,544	592	0.40	-18.7
2006	146,804	398	0.27	-32.8
2007	146,566	184	0.13	-53.8
2008	146,397	254	0.17	38
2009	146,098	167	0.11	-34.2
2010	145,930	259	0.18	55.1
2011	145,654	280	0.19	8.1
2012	145,345	305	0.21	8.9
2013	145,064	221	0.15	-27.5
2014	144,856	309	0.21	39.8
2015	144,499	264	0.18	-14.6
2016	144,268	372	0.26	40.9
2017	143,889	257	0.18	-30.9
2018	143,625	444	0.31	72.8
2019	143,143	682	0.48	53.6



### Acre, Brazil Forest and accumulated deforestation

The map shows the most recent forest cover and yearly deforestation mapped by PRODES, Brazil. Intense red colors represent the most recent deforestation whereas light orange colors earlier deforestation as noted in the legend



Prepared by Earth Innovation Institute

## Burned area

According to the NASA-USGS analysis of MODIS satellite observations, the average yearly burned area in Acre was 229 km<sup>2</sup> for the period 2010-2019. This figure includes burned areas due to fires in forest, savannahs and opened agricultural areas. The burned area in 2019 was 214 km<sup>2</sup> and the worst year in the last decade was 2010 with 757 km<sup>2</sup> burned. In most years, the months of September and August represented the peak of the fire season (see Figure 5).

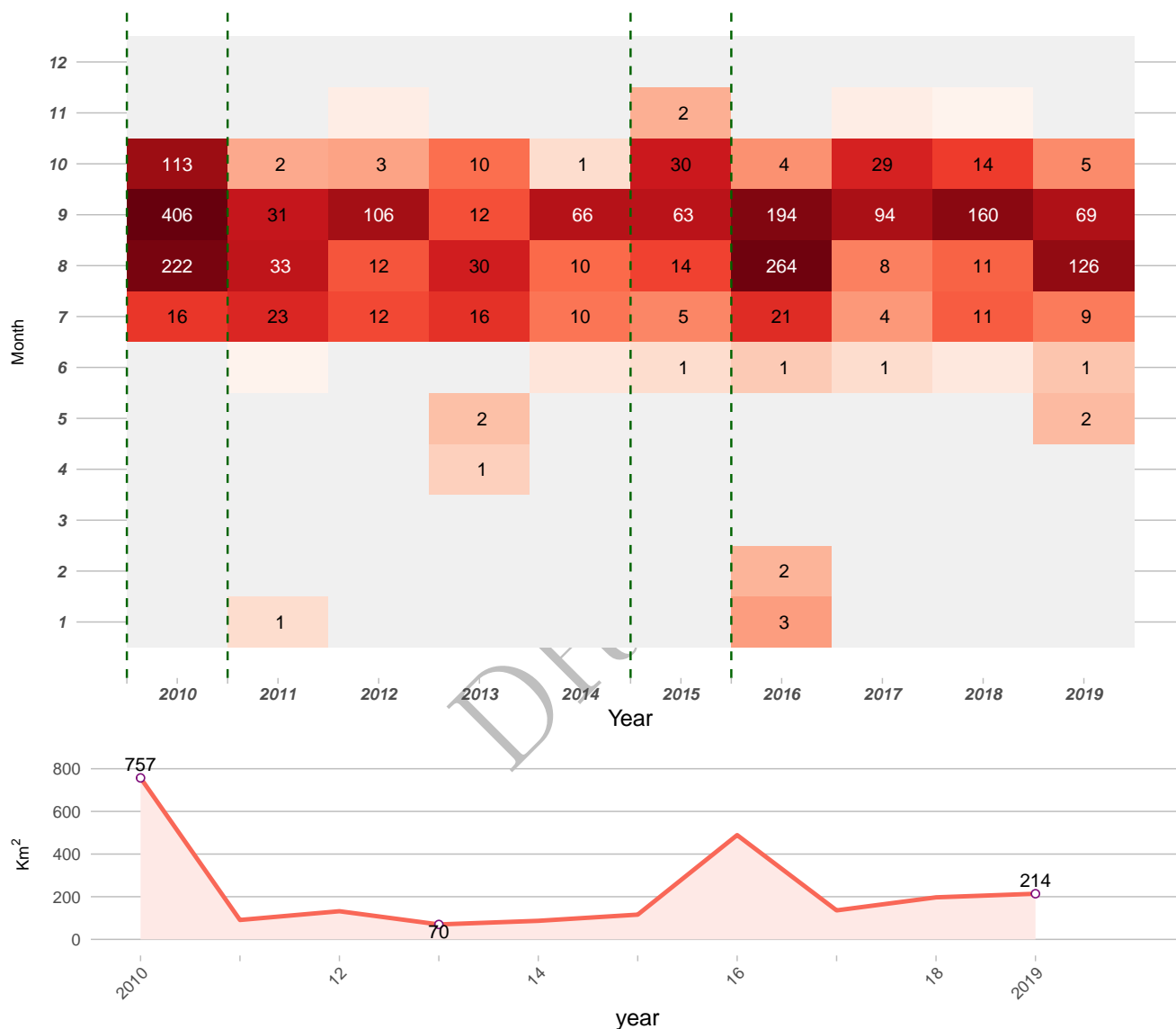


Figure 5: Monthly burned area since 2010 (km<sup>2</sup>). Source: EII analysis of MODIS-MCD64



## Emissions from deforestation

The accumulated emissions from deforestation in the state of Acre between 2000 and 2019 amount to 499 million tons of CO<sub>2</sub>eq, which was equivalent to 3.9% of the total emissions from deforestation in the legal Amazon during this period. Considering the observed yearly deforestation, the mean carbon density of the state's forest and the business as usual deforestation baseline, the accumulated gross avoided emissions from deforestation during the period from 2006 to 2019 was 214 million tons of CO<sub>2</sub>eq. This results from summing avoided emissions during the period from 2006 to 2019 in which the deforestation was lower than the business as usual deforestation baseline.

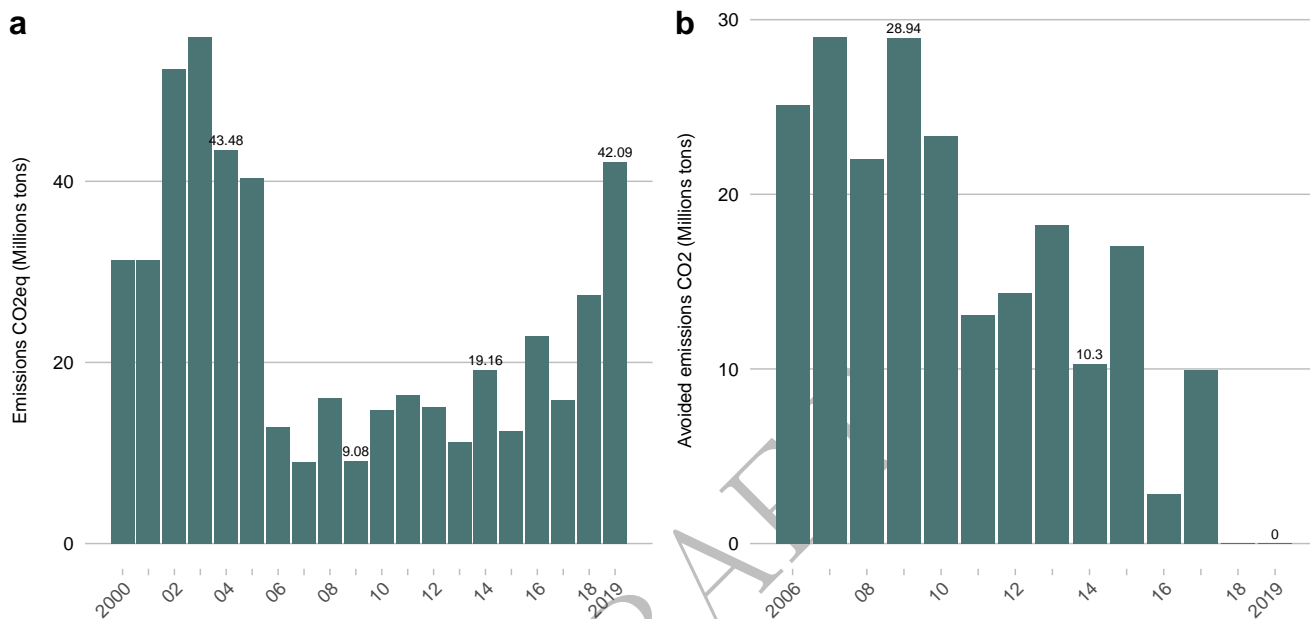






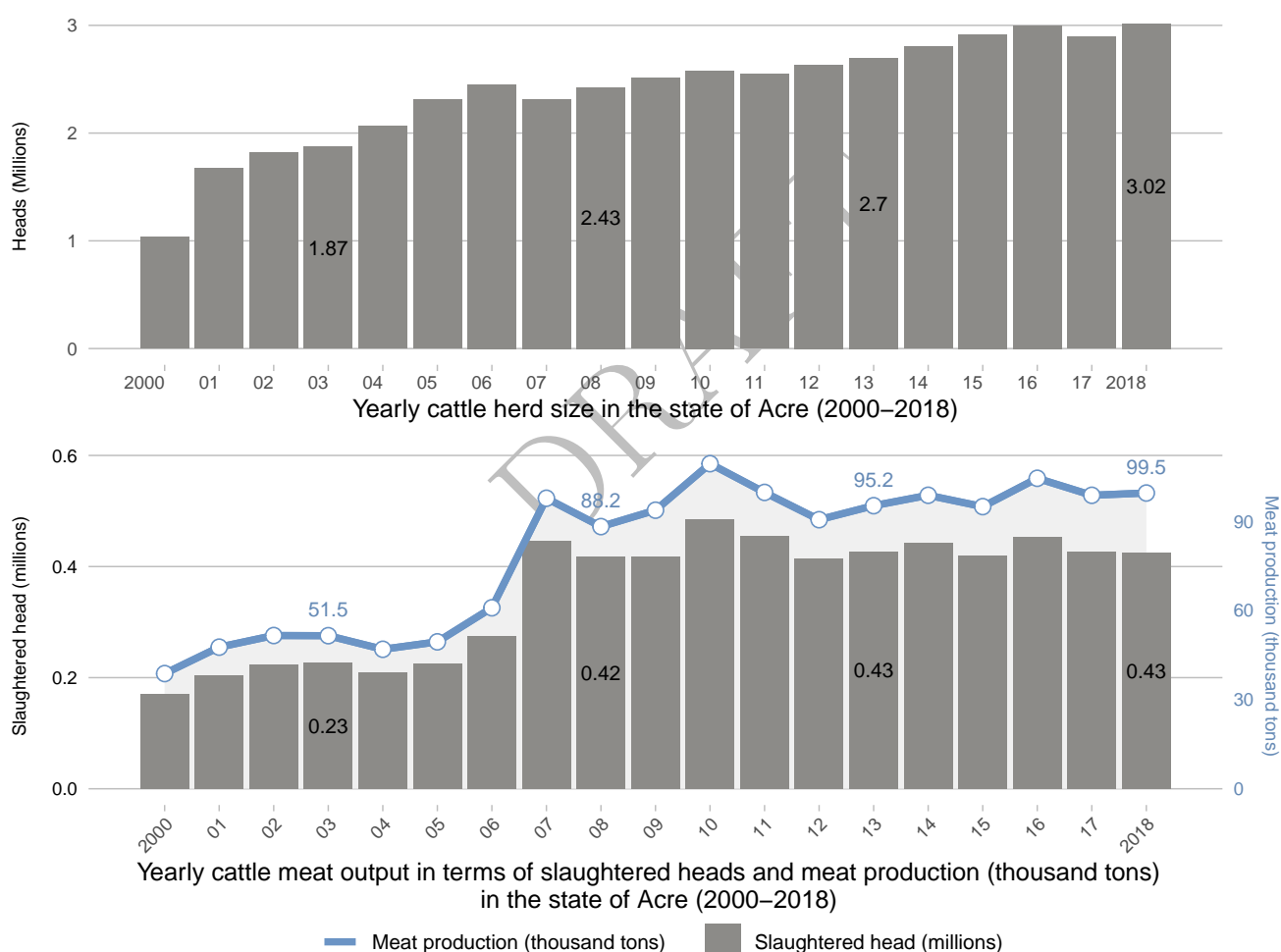
Figure 6: Emissions from deforestation (left) and avoided emissions (right) (CO<sub>2</sub>eq Millions tons)



## Livestock

Table 2: Livestock indicators in Acre

				
	<i>Cattle</i>	<i>Pig</i>	<i>Poultry</i>	<i>Fish</i>
Year	2018	2018	2018	2015
Herd size:	3,017,291	142,980	2,734,901	
Slaughtered heads:	425,104	39,734	NA	
Meat production (tons):	99,457	4,052	NA	
Value (thousands):				R\$49,511 BRL





## Agriculture

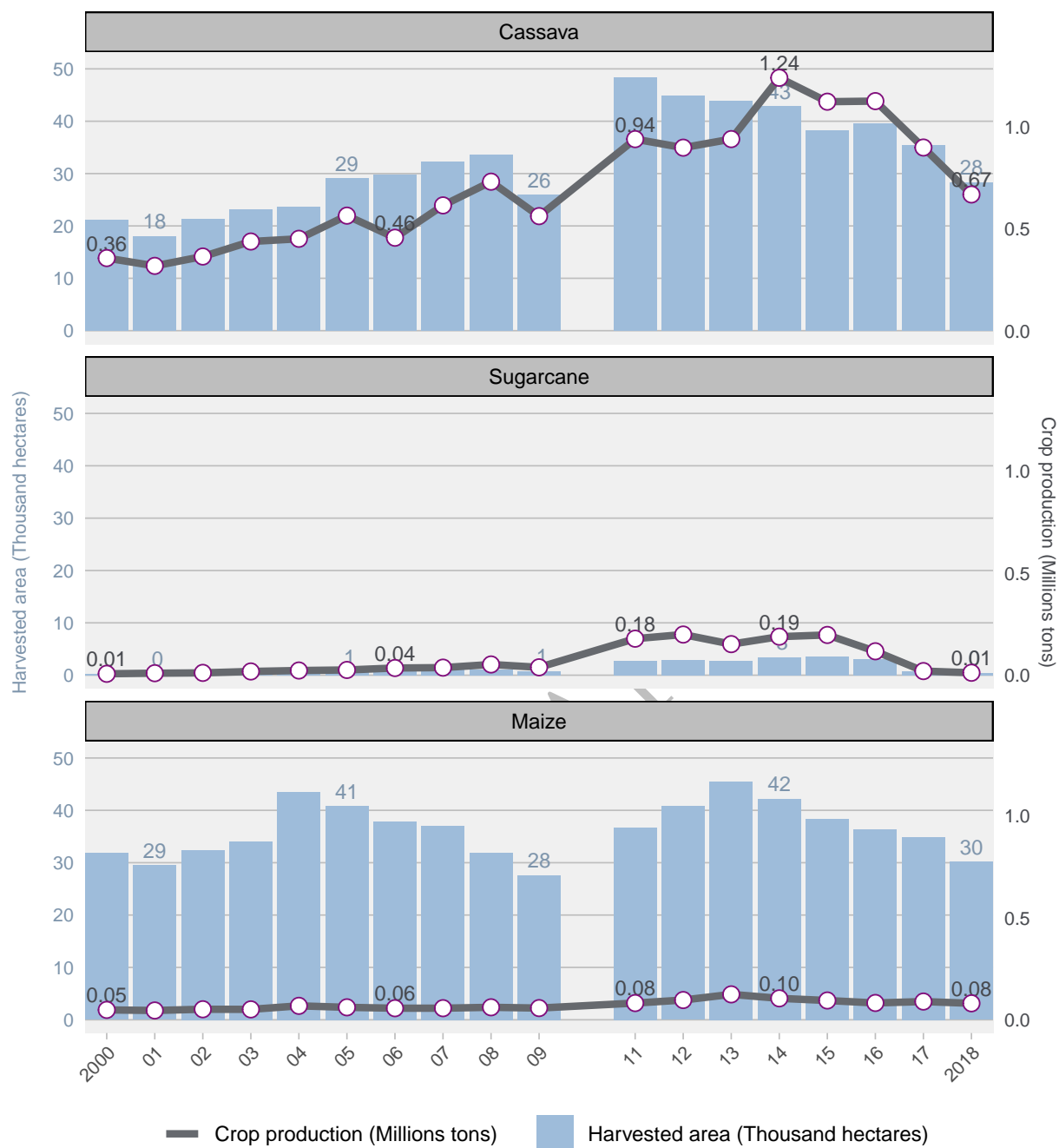


Figure 7: Harvested area and production of the three crops most produced in Acre



## Aquaculture

The plot shows the aquaculture production in the state of Acre over the last 6 years and the value of this production. The data includes production of fish such as Tambaqui, Pirapitinga, Tarpon prochilodus or Three dots, Piapara and includes only activities related with fish farming under controlled conditions. Does not include fishing activities.<sup>1</sup>

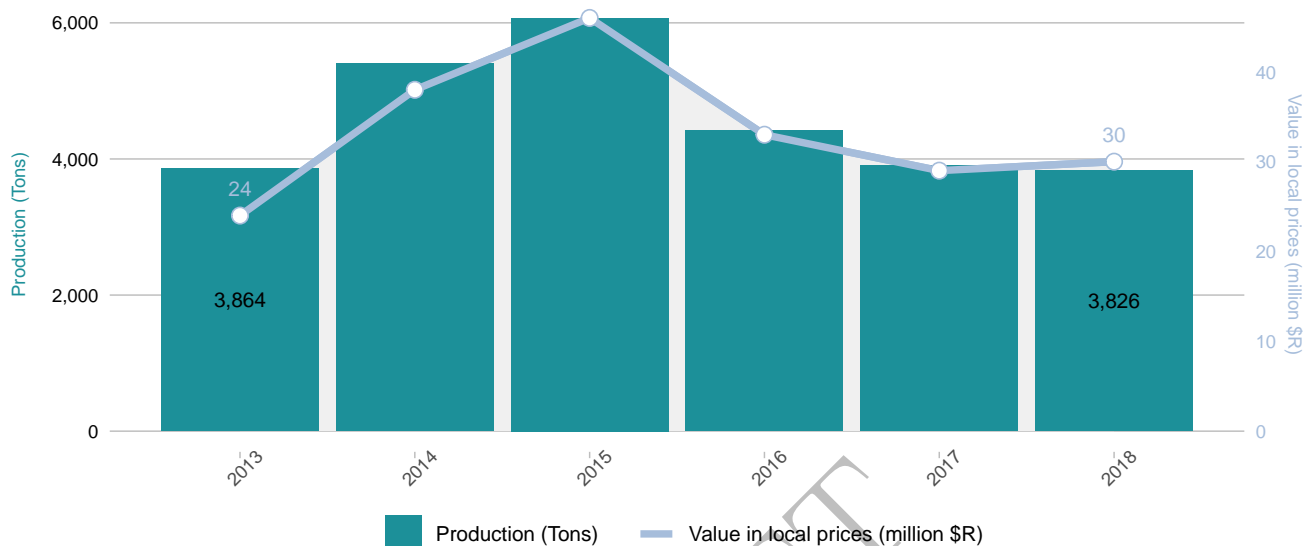


Figure 8: Yearly aquaculture production (tons) and value of production (Reales) in Acre

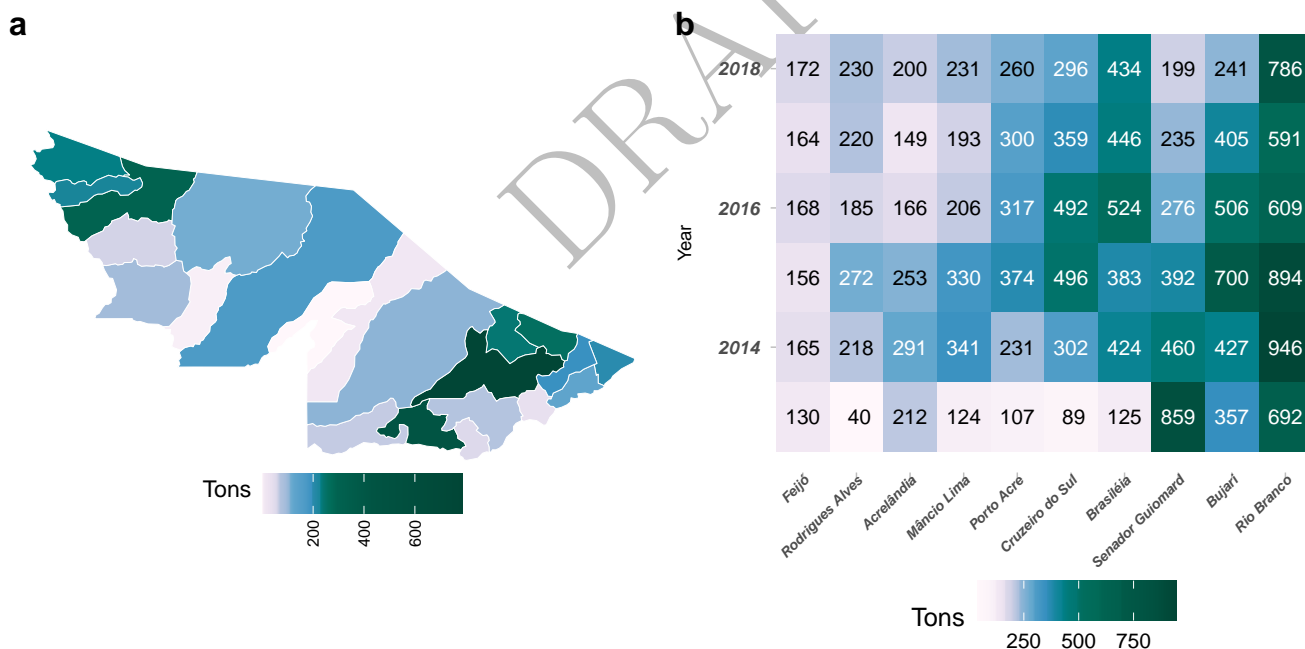


Figure 9: a) Yearly aquaculture production (tons) in municipalities of Acre in 2018. b) Yearly aquaculture production by municipalities (Tons)

<sup>1</sup>The value of production don't include the class Shellfish seeds, Shrimp, Shrimp larvae and post-larvae, Oysters, scallops and mussels, Other products (frog, alligator, crab, lobster, etc.) and Alevinos.