

# Ucayali, Peru



## Jurisdictional indicators brief

State area:	102,411 km <sup>2</sup> (7.97% of Peru)
Original forest area:	102,417 km <sup>2</sup>
Current forest area (2019):	93,004 km <sup>2</sup> (90.8% of Ucayali)
Yearly deforestation (2019)	363 km <sup>2</sup>
Yearly deforestation rate (2019)	0.39%
Interannual deforestation change (2018-2019)	+40%
Accumulated deforestation (2001-2019):	4,092 km <sup>2</sup>
Protected conservation areas:	23,058 km <sup>2</sup> (22.5% of Ucayali)
Carbon stocks (2017):	1,295 millions tons (above ground biomass)
Representative crops (2017):	Oil palms (298,652 tons); Bananas and plantains (260,955 tons); Cassava (85,093 tons)
Value of agricultural production (2016):	\$115,273,104 USD
More on jurisdictional sustainability	<a href="#">State of jurisdictional sustainability</a>

**Index:** Forest and people | [Deforestation](#) | [Burned area](#) | [Emissions from deforestation](#) | [Livestock](#) | [Agriculture](#) | [Aquaculture](#)

## Forest and people

In 2019, the estimated area of forest in the department of Ucayali was 93,004 km<sup>2</sup>, equivalent to 90.8% of the department's total area, and to 13.6% of the forest remaining in Peru. The total accumulated forest lost during the period 2002-2019 was 4,092 km<sup>2</sup>, equivalent to 4.1% of the forest area remaining in 2002. Ucayali concentrated about 14.9% of the carbon reserves stored in the biomass of the Peruvian tropical forest (about 1,295 mt C as of 2019)

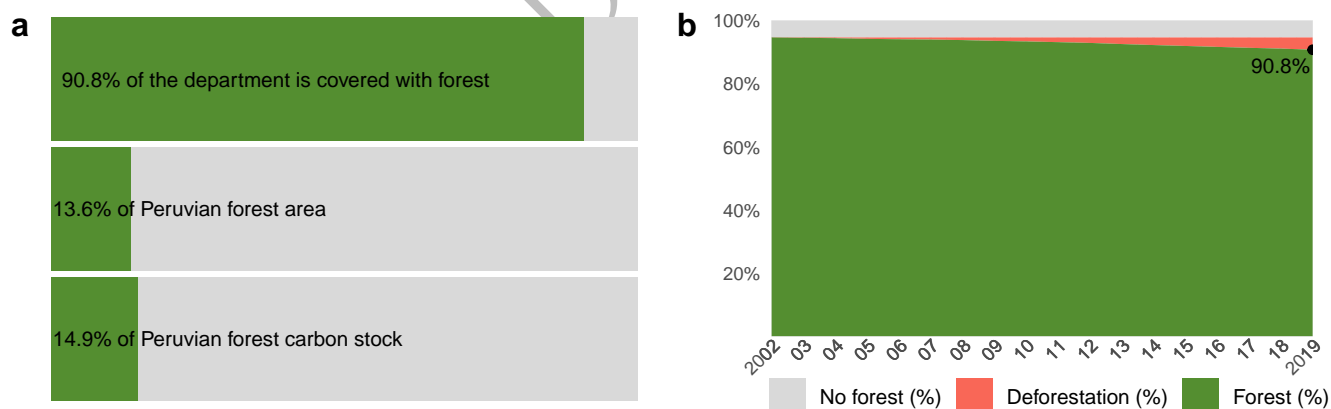


Figure 1: a) forest share and b) transition of forest to deforestation over the last years

There were 0.5 million people living in Ucayali as of 2020, distributed in 18 districts, with 0.2 million people living in the capital city of Pucallpa. The department has formally designated conservation areas and indigenous territories, which respectively represent 23% and 22% of the department. There were an estimated 36,774 indigenous people living in the department in 2017 (see Figure 2).

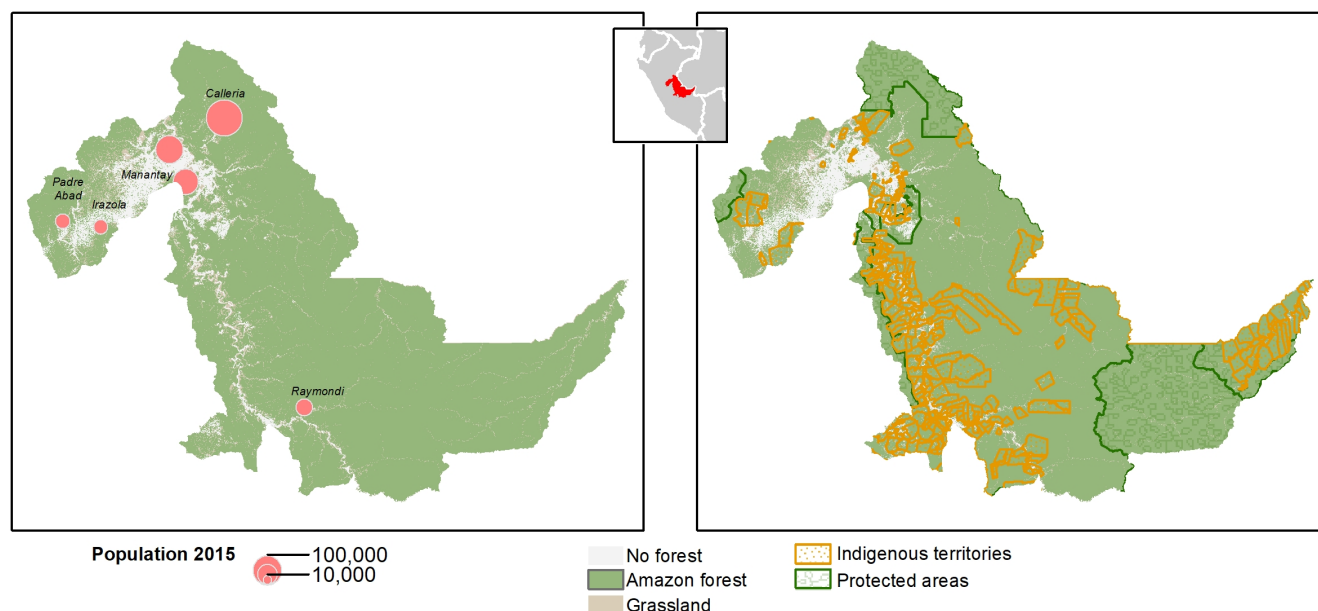


Figure 2: Map of most populated places (> 16,000 people) and indigenous and protected areas in Ucayali

## Deforestation

The deforestation in the department of Ucayali increased three-fold from an average of 114 km<sup>2</sup> of yearly deforestation between 2001 and 2004 to a current average of more than 300 km<sup>2</sup>. The maximum deforestation was recorded in 2013 with 368 km<sup>2</sup>. The preliminary estimated deforestation in Ucayali in 2019 was 363 km<sup>2</sup>, which, if confirmed, represented an interannual increase of 40%. This area amounted to 24.7% of the total deforestation in Peru in 2019 and is equivalent to a deforestation rate of 0.39%. The deforestation rate in the region was below than the national average of 2019 (0.39% and 0.22% respectively).

Considering the 2019 figures on deforestation, Ucayali ranked as 1/15 in terms of absolute area of deforestation and 6/15 in terms of deforestation rate among the Peruvian regions with tropical forest.

With the latest official figure of 2018, the department's deforestation is 31% below the reference deforestation baseline 2001-2014 (see Figure 3).

41% of the deforestation is located in the five most affected districts in the department (see Figure 4). The district of Raymondi consistently registered the largest loss of tropical forest over the last years, reaching a maximum of 45 km<sup>2</sup> lost in 2014. In 2018 the deforestation in Raymondi was 36 km<sup>2</sup>.

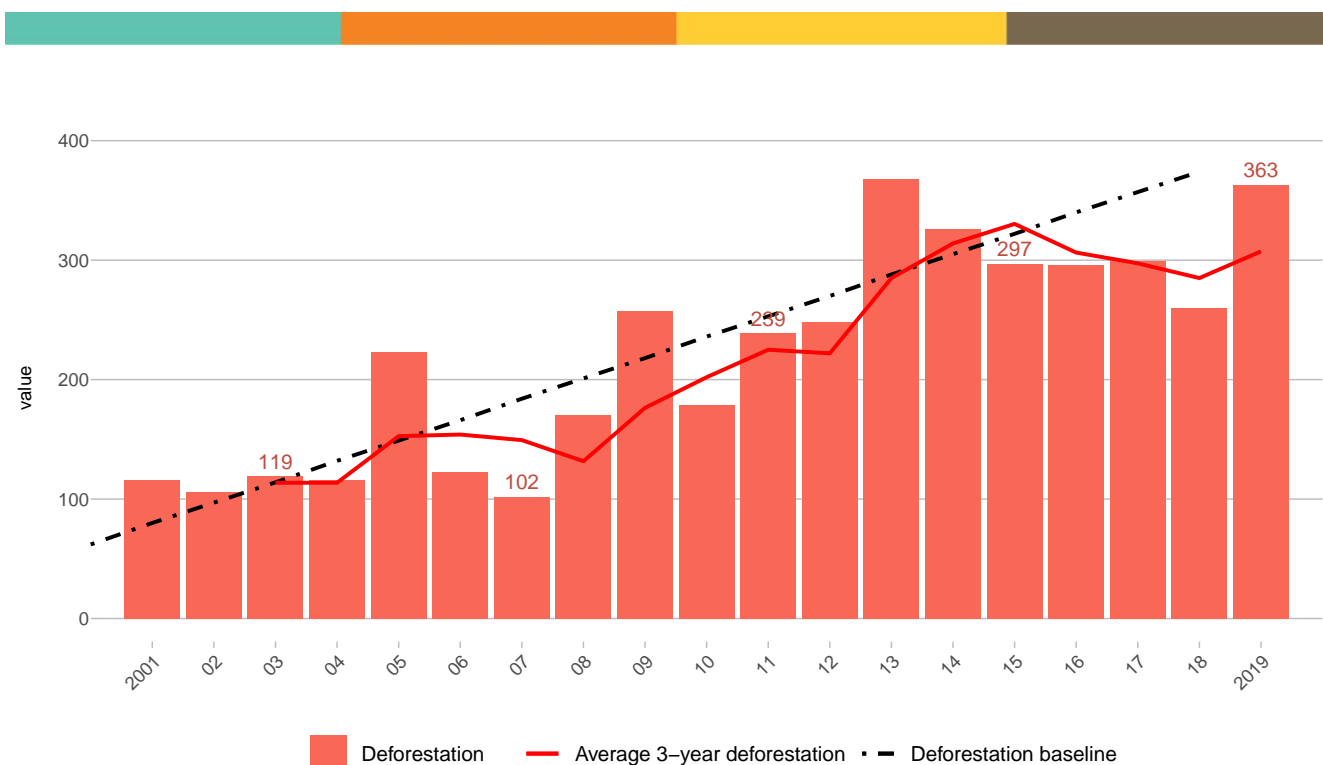


Figure 3: Yearly deforestation ( $\text{km}^2$ ) and deforestation baseline

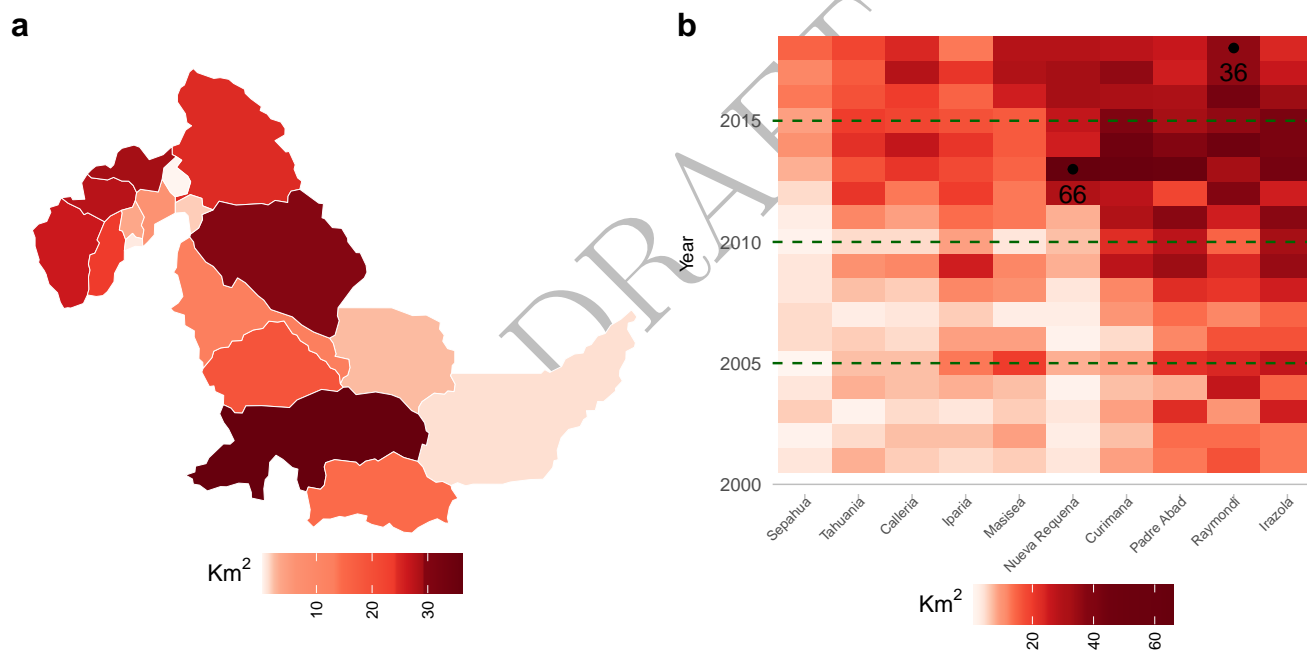
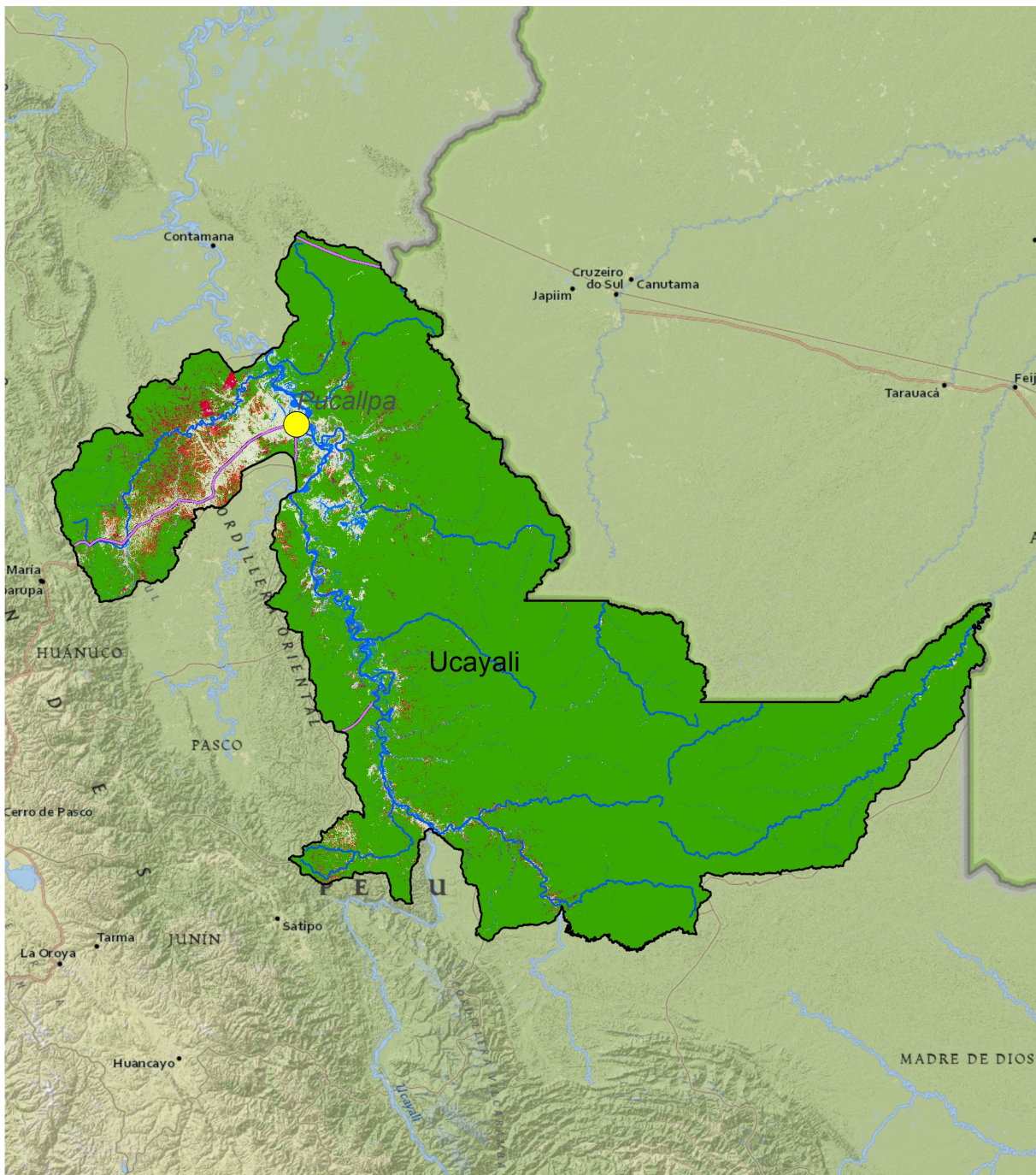


Figure 4: a) Yearly deforestation by districts in 2018 b) Yearly deforestation in top 10 most affected districts ( $\text{km}^2$ )



Table 1: Forest and deforestation indicators in the department of Ucayali

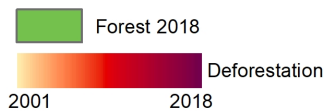
Year	Forest (km <sup>2</sup> )	Deforestation	Deforestation rate (%)	Annual variation (%)
2002	96,991	105.76	0.11	-8.7
2003	96,871	119.38	0.12	12.9
2004	96,756	115.91	0.12	-2.9
2005	96,533	222.73	0.23	92.2
2006	96,410	123.15	0.13	-44.7
2007	96,307	102.27	0.11	-16.9
2008	96,137	170.33	0.18	66.5
2009	95,880	256.79	0.27	50.8
2010	95,701	179.26	0.19	-30.2
2011	95,462	239.20	0.25	33.4
2012	95,214	247.56	0.26	3.5
2013	94,846	367.93	0.39	48.6
2014	94,520	326.38	0.34	-11.3
2015	94,223	297.15	0.31	-9
2016	93,927	296.11	0.31	-0.4
2017	93,628	299.05	0.32	1
2018	93,368	259.91	0.28	-13.1
2019	93,004	363.39	0.39	39.8



### Ucayali, Peru Forest and accumulated deforestation

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

#### Legend



Prepared by Earth Innovation Institute



## Burned area

According to the NASA-USGS analysis of MODIS satellite observations, the average yearly burned area in Ucayali was 174 km<sup>2</sup> for the period 2010-2020. This figure includes burned areas due to fires in forest, savannahs and opened agricultural areas. The burned area in 2019 was 240 km<sup>2</sup> and the worst year in the last decade was 2010 with 396 km<sup>2</sup> burned. In most years, the months of September and August represented the peak of the fire season (see Figure 5).

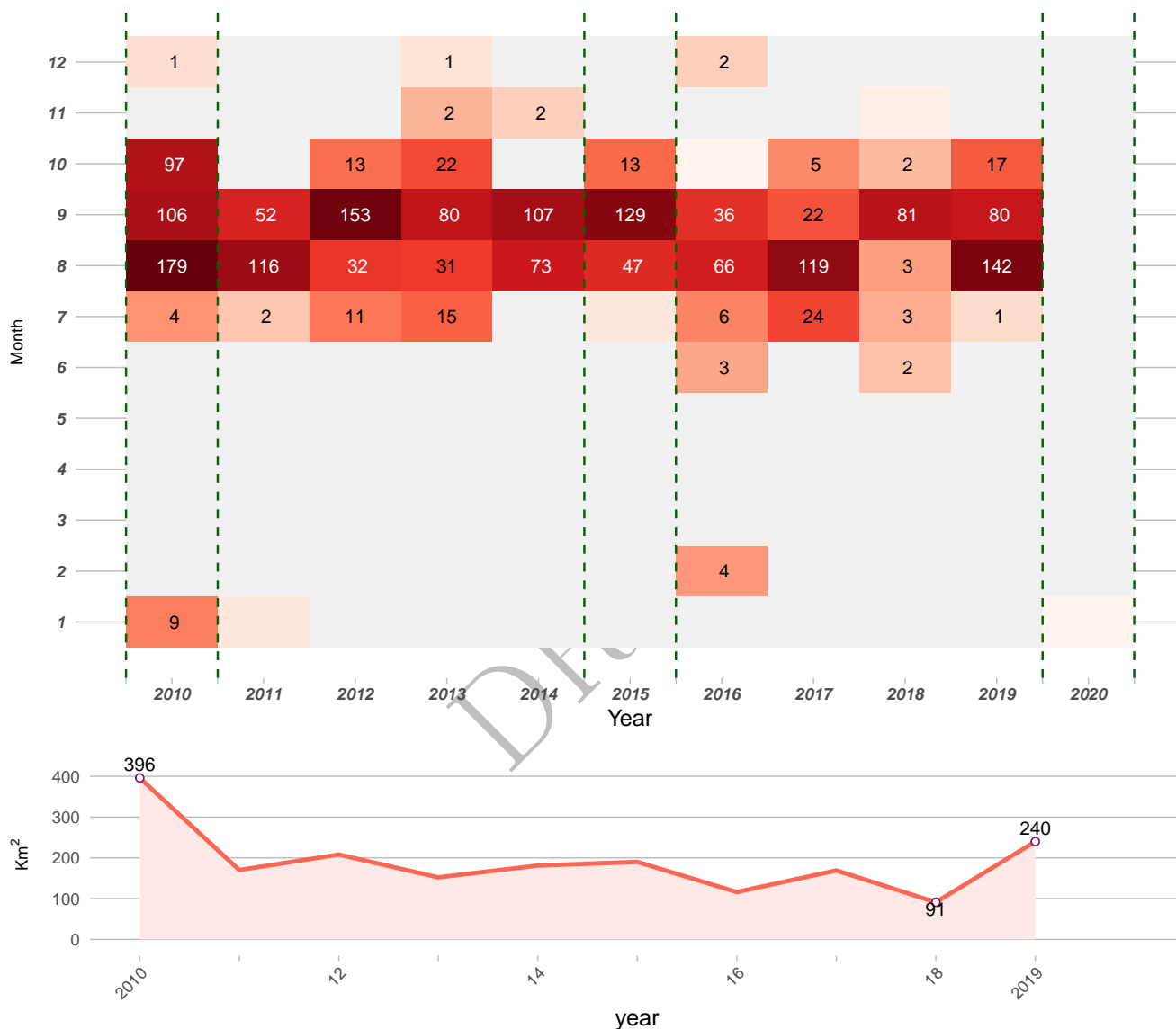


Figure 5: Monthly burned area since 2010 (km<sup>2</sup>). Source: EII analysis of MODIS-MCD64



## Emissions from deforestation

The accumulated emissions from deforestation in the department of Ucayali between 2001 and 2018 amount to 194 million tons of CO<sub>2</sub>eq, which was equivalent to xx% of the total emissions from deforestation in Peru during this period. Considering the observed yearly deforestation, the mean carbon density of the department forest and the business as usual deforestation baseline, the accumulated gross avoided emissions from deforestation during the period from 2015 to 2018 was 12 million tons of CO<sub>2</sub>eq. This results from summing avoided emissions during the period from 2015 to 2018 in which the deforestation was lower than the business as usual deforestation baseline

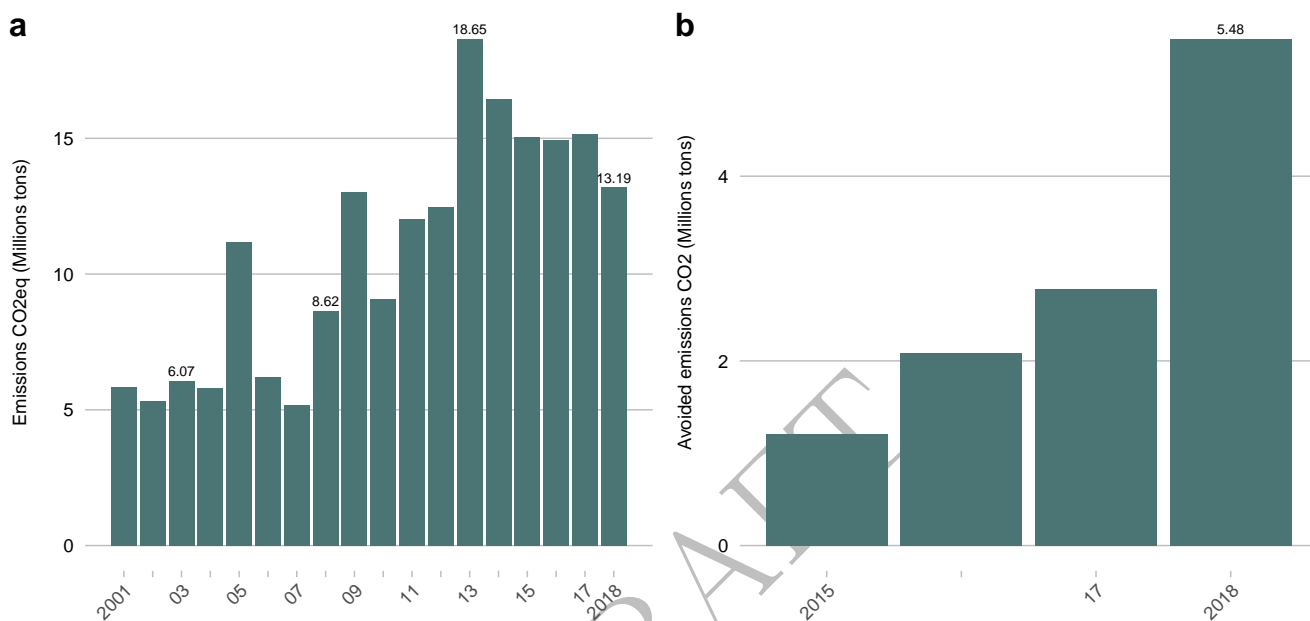




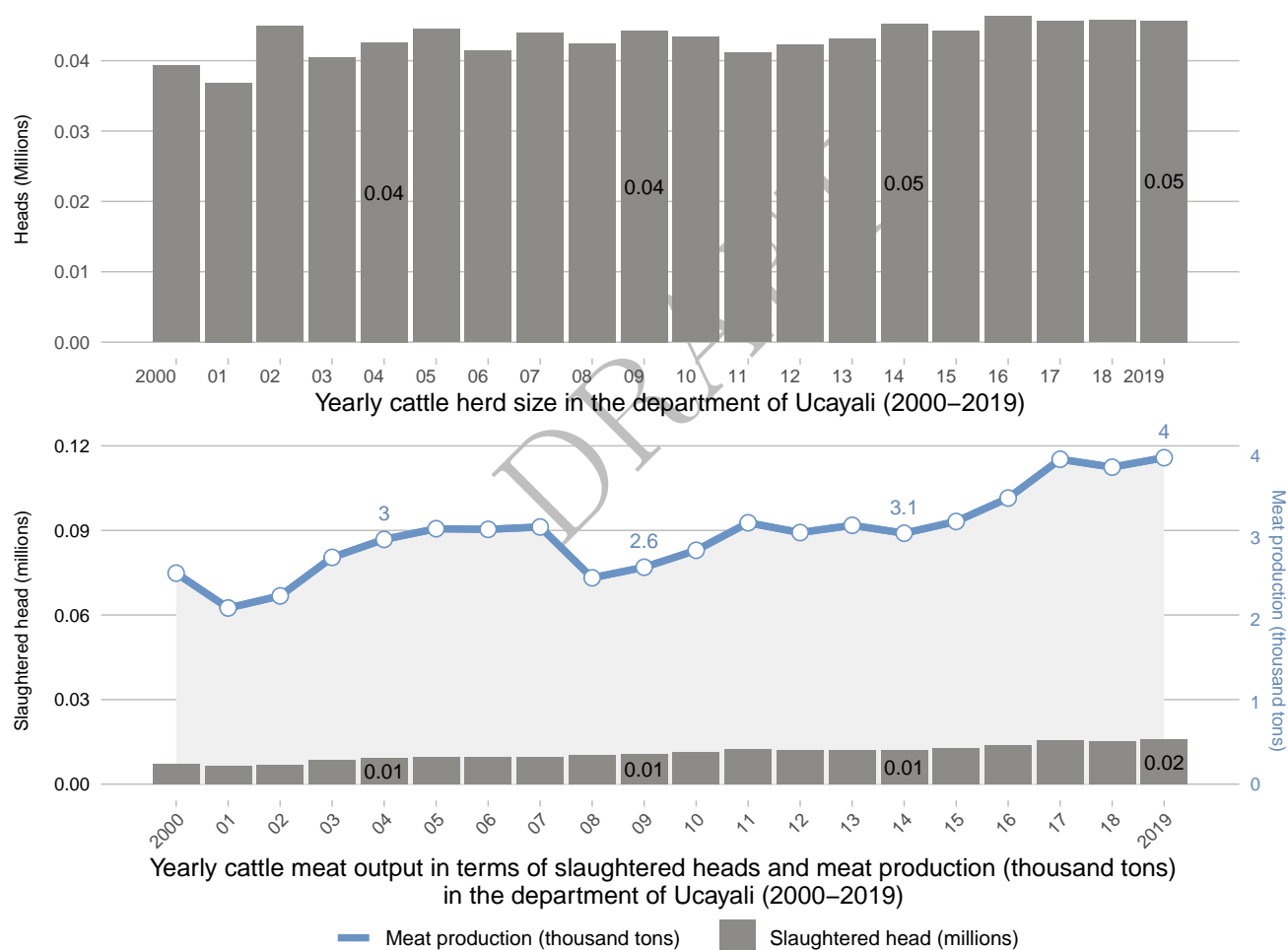


Figure 6: Emissions from deforestation (left) and avoided emissions (right) (CO<sub>2</sub>eq Millions tons)

## Livestock

Table 2: Livestock indicators in Ucayali

				
Year	2019	2019	2019	NA
Herd size:	45,705	48,466	6,002,549	
Slaughtered heads:	15,802	21,739	7,328,098	
Meat production (tons):	3,972	1,131	19,207	
Value (thousands):				S/NA PEN





## Agriculture

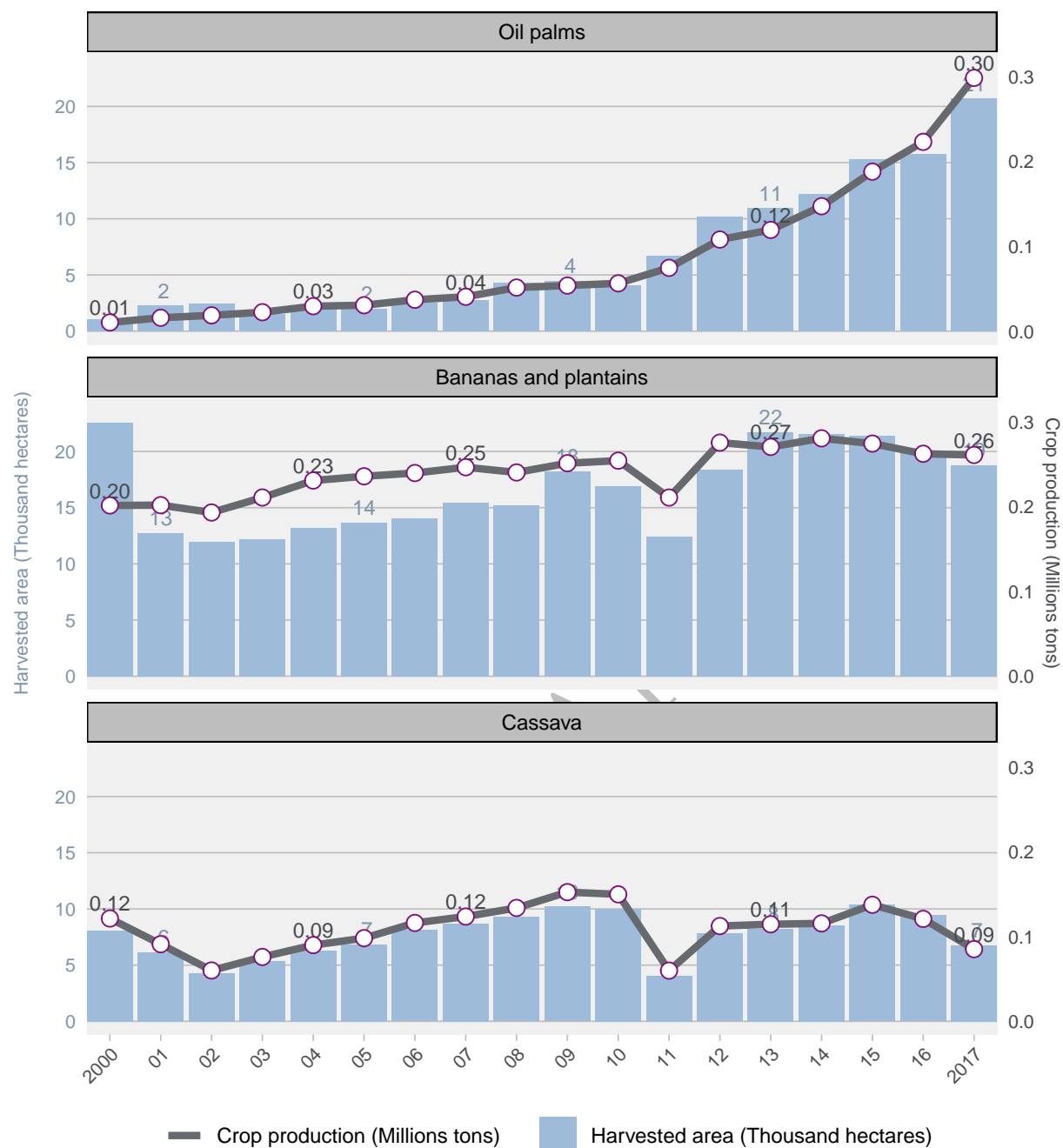


Figure 7: Harvested area and production of the three crops most produced in Ucayali



## Aquaculture

The plot shows the aquaculture production in the department of Ucayali over the last 6 years and the value of this production. The data includes production of fish such as Skunk catfish, Tiger shovelnose catfish, Tambaqui or Tilapia 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 Ucayali

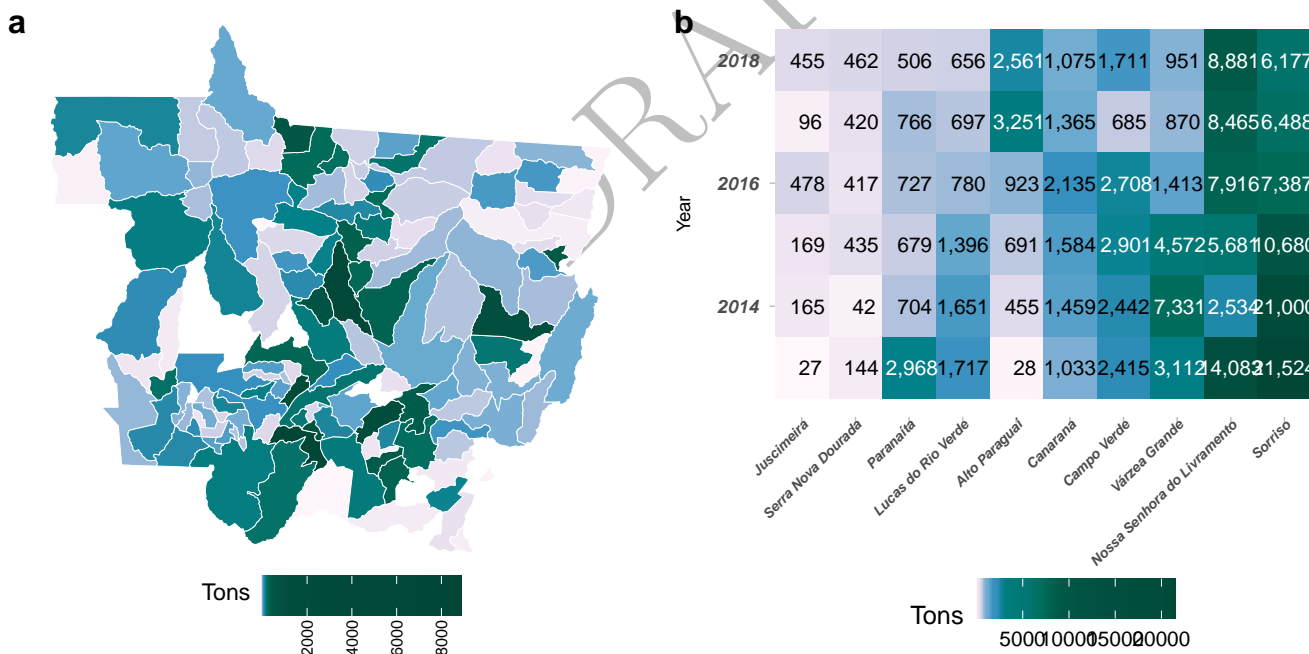


Figure 9: a) Yearly aquaculture production (tons) in districts of Ucayali in 2018. b) Yearly aquaculture production by districts (Tons)

<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.