

# Huánuco, Peru



## Jurisdictional indicators brief

State area:	36,849 km <sup>2</sup> (2.87% of Peru)
Original forest area:	23,375 km <sup>2</sup>
Current forest area (2019):	15,312 km <sup>2</sup> (41.6% of Huánuco)
Yearly deforestation (2019)	148 km <sup>2</sup>
Yearly deforestation rate (2019)	0.96%
Interannual deforestation change (2018-2019)	-11%
Accumulated deforestation (2001-2019):	3,228 km <sup>2</sup>
Protected conservation areas:	317 km <sup>2</sup> (0.9% of Huánuco)
Carbon stocks (2017):	183 millions tons (above ground biomass)
Representative crops (2017):	Potato (668,370 tons); Bananas and plantains (211,631 tons); Maize (71,543 tons)
Value of agricultural production (2016):	\$258,964,405 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 Huánuco was 15,312 km<sup>2</sup>, equivalent to 41.6% of the department's total area, and to 2.2% of the forest remaining in Peru. The total accumulated forest lost during the period 2002-2019 was 3,228 km<sup>2</sup>, equivalent to 16.9% of the forest area remaining in 2002. Huánuco concentrated about 2.1% of the carbon reserves stored in the biomass of the Peruvian tropical forest (about 183 mt C as of 2019)

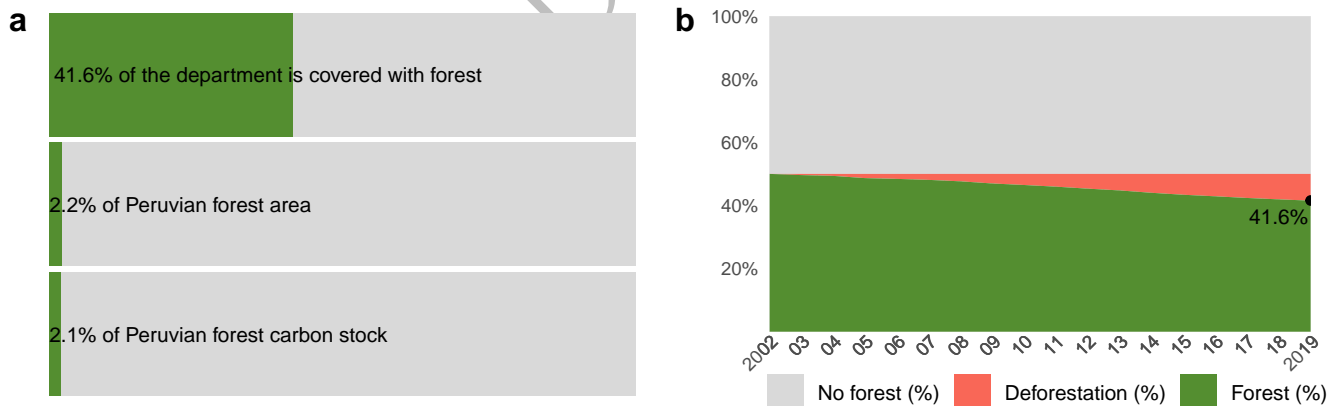


Figure 1: a) forest share and b) transition of forest to deforestation over the last years

There were 0.9 million people living in Huánuco as of 2020, distributed in 18 districts, with 0.1 million people living in the capital city of Huánuco. The department has formally designated conservation areas and indigenous territories, which respectively represent 1% and 4% of the department. There were an estimated 2,211 indigenous people living in the department in 2017 (see Figure 2).

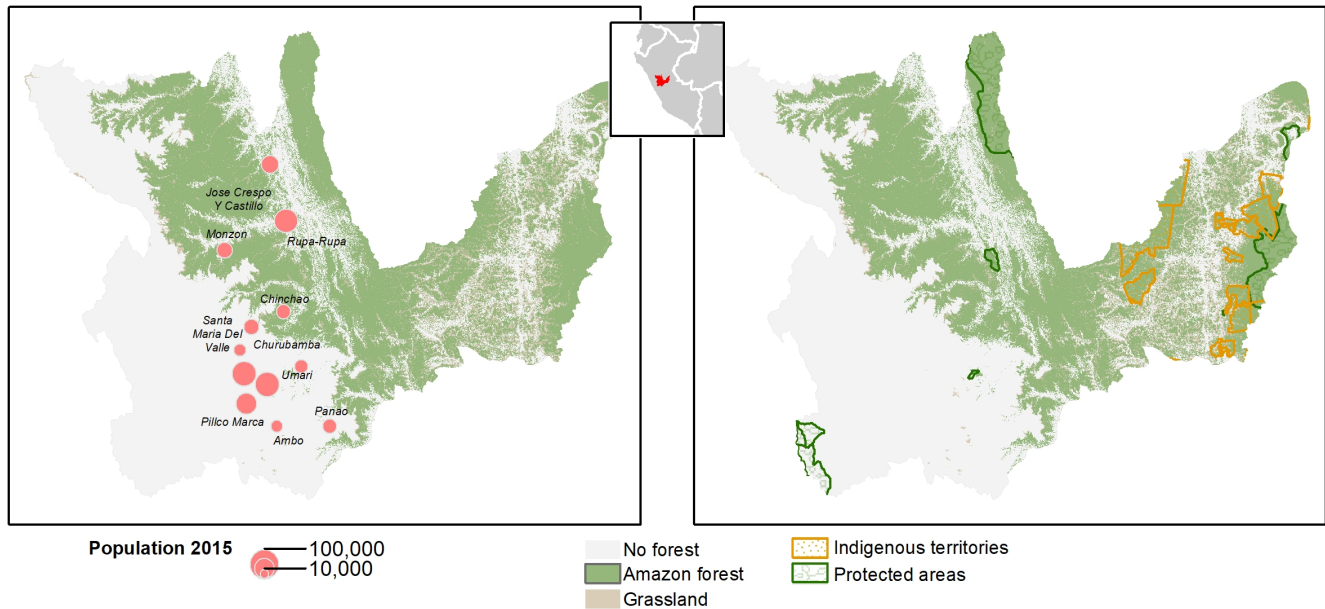


Figure 2: Map of most populated places (> 16,000 people) and indigenous and protected areas in Huánuco

## Deforestation

The deforestation in the department of Huánuco increased markedly after 2007, reaching a peak in 2014 with 276 km<sup>2</sup>. However, deforestation declined continuously since then, following almost a linear trend that drops 10% yearly and returned to the levels observed in 2008. The preliminary estimated deforestation in Huánuco in 2019 was 148 km<sup>2</sup>, a decline of -11% with respect to 2018. This figure represented 10% of the total deforestation in Peru and a deforestation rate of 0,96%.

With the 2019 figures on deforestation, Huánuco ranked as 4/15 in terms of absolute area of deforestation and 2/15 in terms of deforestation rate among the Peruvian regions with tropical forest. This indicates that while yearly deforestation has declined rapidly in Huanuco over the last five years, the deforestation rate is still high considering that the department holds only 2.3% of the Peruvian tropical forest.

With the latest official figure of 2018, the department's deforestation is 42% below the reference deforestation baseline 2001-2014 (see Figure 3).

80% of the deforestation is located in the five most affected districts in the department (see Figure 4). The district of Codo Del Pozuzo consistently registered the largest loss of tropical forest over the last years, reaching a maximum of 54 km<sup>2</sup> lost in 2014. In 2018 the deforestation in Codo Del Pozuzo was 32 km<sup>2</sup>.

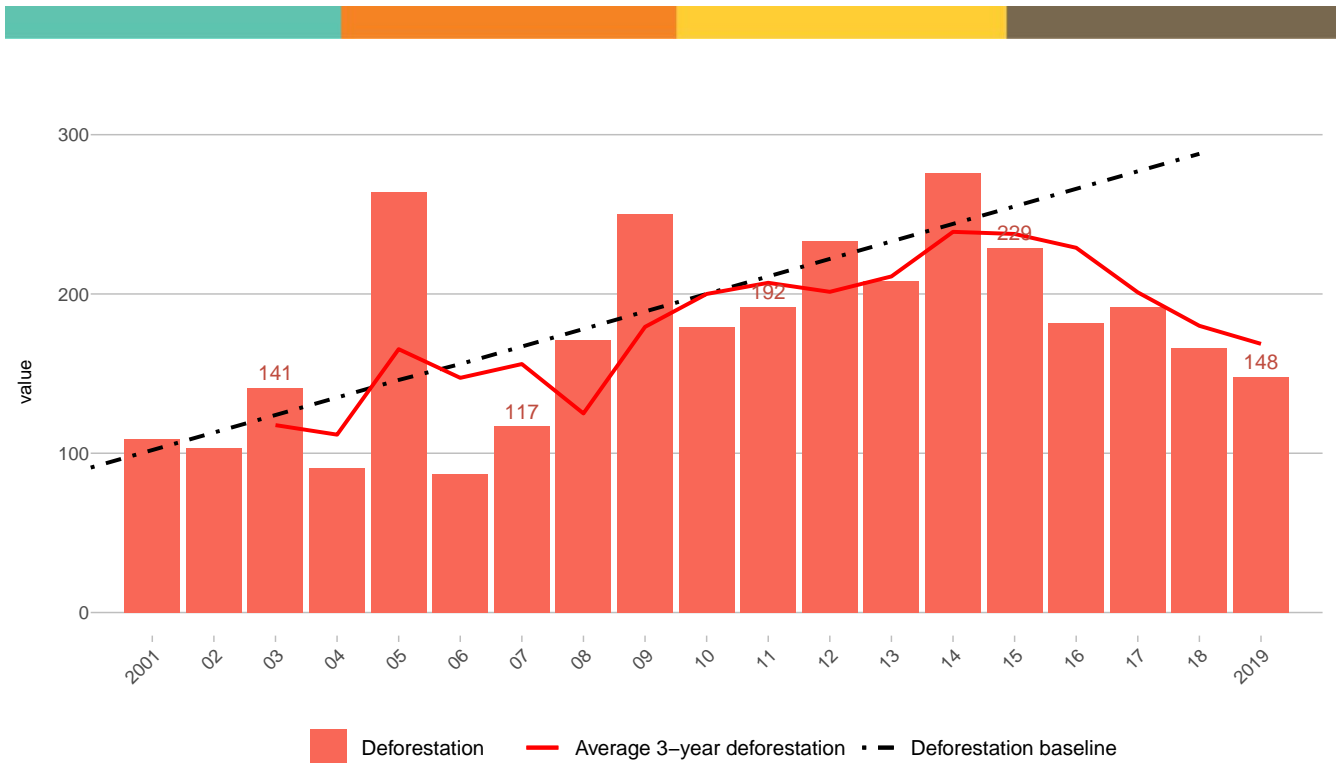


Figure 3: Yearly deforestation ( $km^2$ ) and deforestation baseline

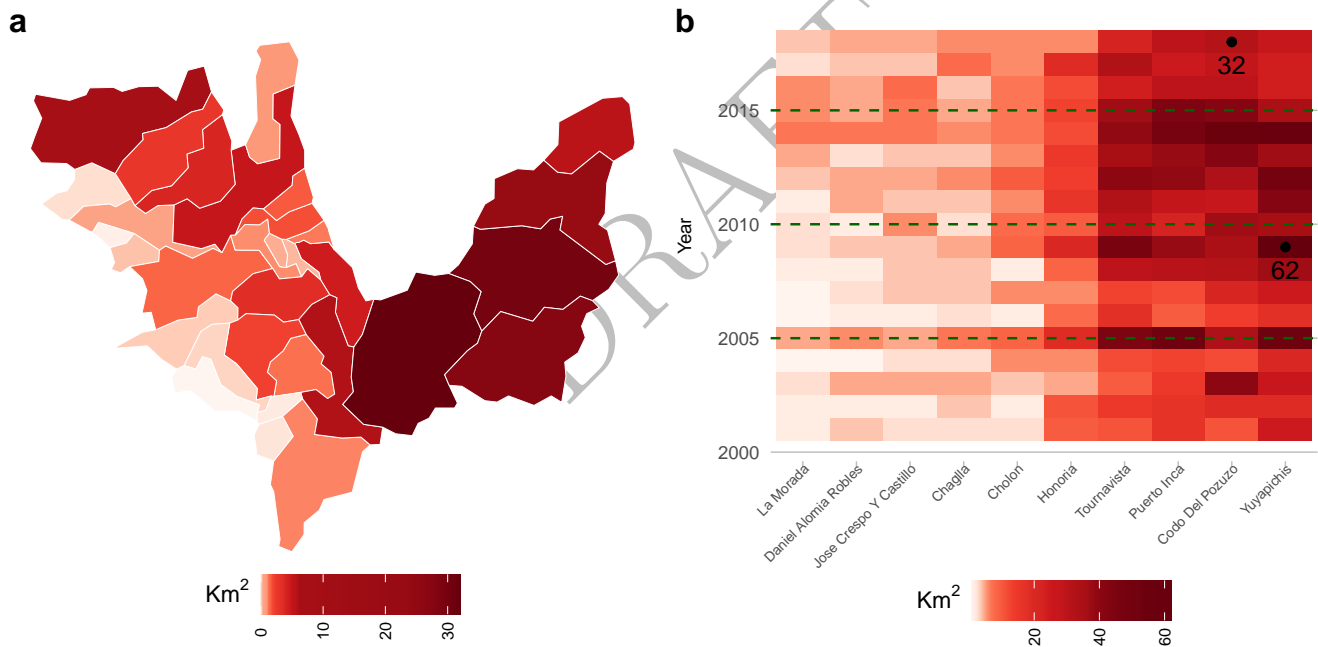
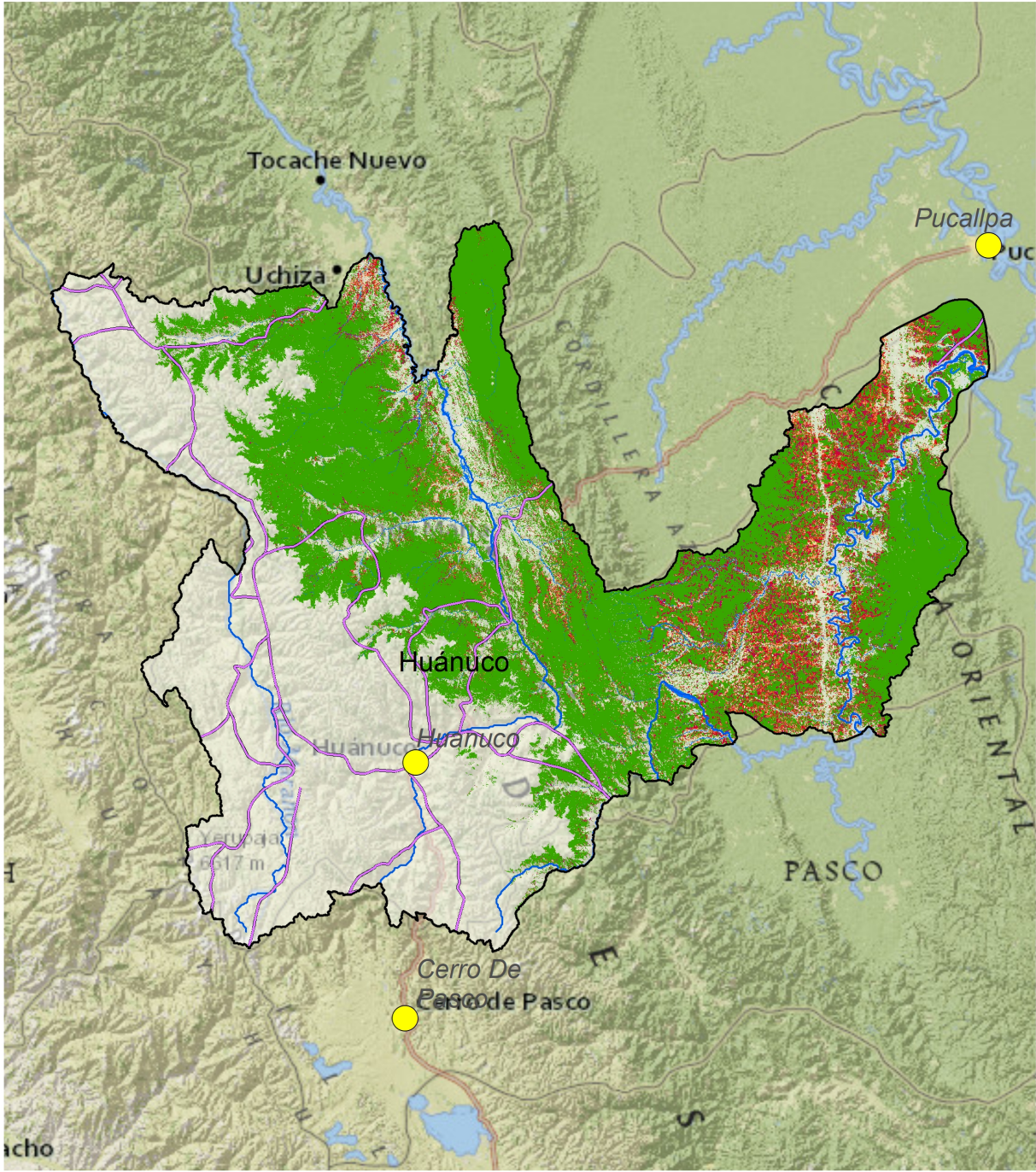


Figure 4: a) Yearly deforestation by districts in 2018 b) Yearly deforestation in top 10 most affected districts ( $km^2$ )

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

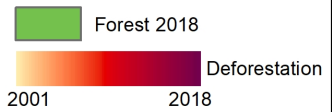
Year	Forest (km <sup>2</sup> )	Deforestation	Deforestation rate (%)	Annual variation (%)
2002	18,437	102.87	0.56	-5.4
2003	18,296	141.28	0.77	37.3
2004	18,205	91.10	0.50	-35.5
2005	17,941	264.06	1.45	189.8
2006	17,854	87.00	0.49	-67
2007	17,737	116.72	0.65	34.2
2008	17,566	171.28	0.97	46.8
2009	17,316	249.91	1.42	45.9
2010	17,137	179.04	1.03	-28.4
2011	16,945	191.74	1.12	7.1
2012	16,713	232.55	1.37	21.3
2013	16,505	207.95	1.24	-10.6
2014	16,229	275.96	1.67	32.7
2015	16,000	229.12	1.41	-17
2016	15,818	181.98	1.14	-20.6
2017	15,625	192.36	1.22	5.7
2018	15,460	165.60	1.06	-13.9
2019	15,312	147.93	0.96	-10.7



**Huánuco, 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 Huánuco was 101 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 98 km<sup>2</sup> and the worst year in the last decade was 2012 with 210 km<sup>2</sup> burned. In most years, the months of September and August represented the peak of the fire season (see Figure 5).

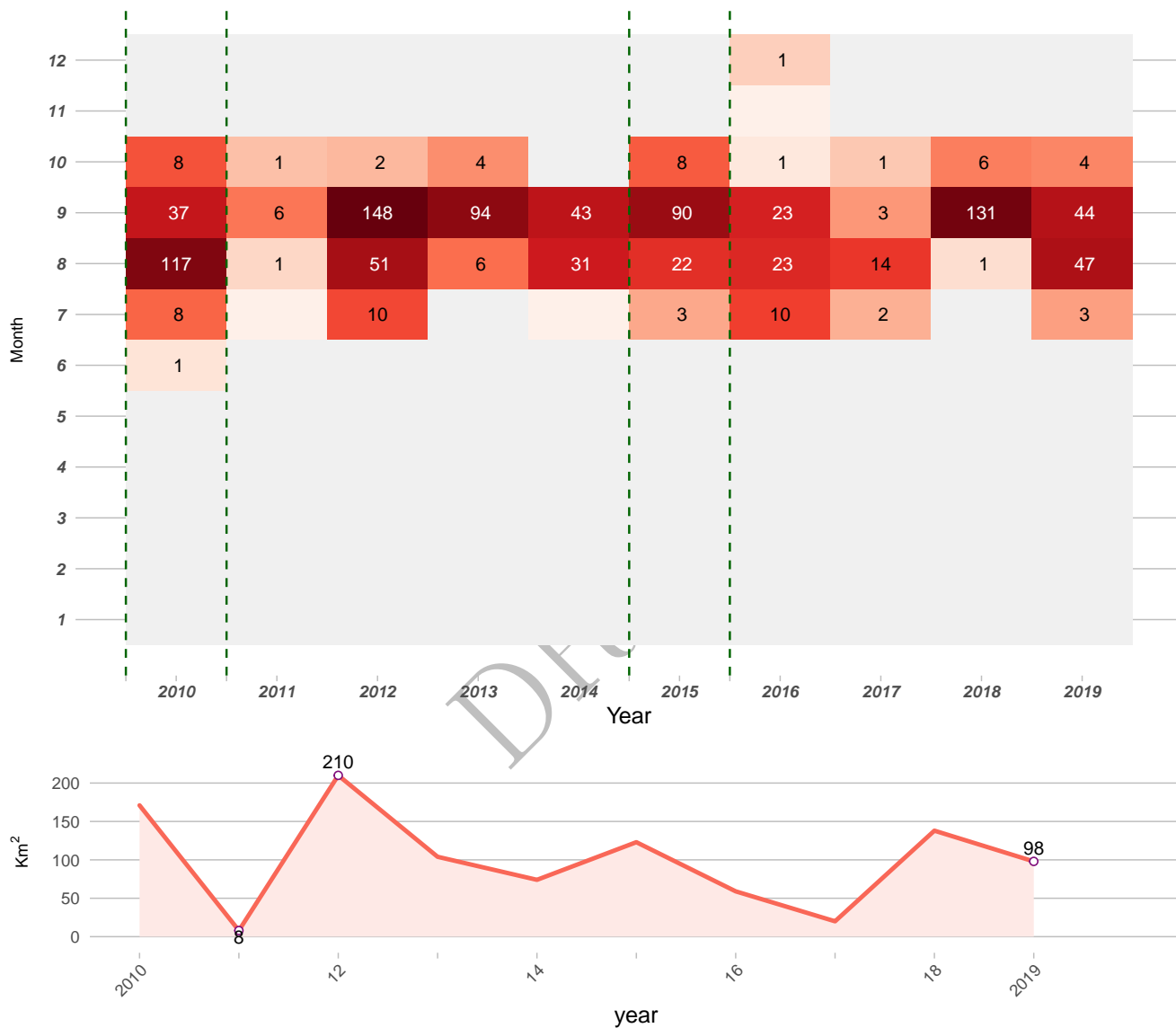


Figure 5: Monthly burned area since 2010 (km<sup>2</sup>). Source: EII analysis of MODIS-MCD64



## Emissions from deforestation

The accumulated emissions from deforestation in the department of Huánuco between 2001 and 2018 amount to 152 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 13 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

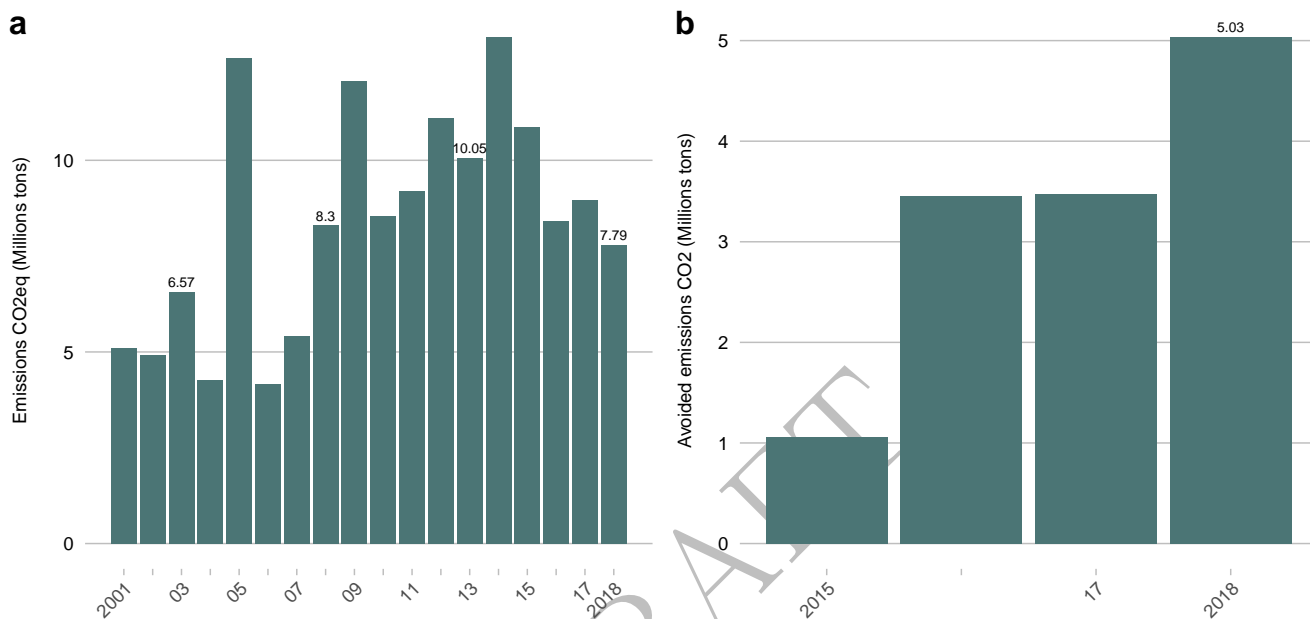




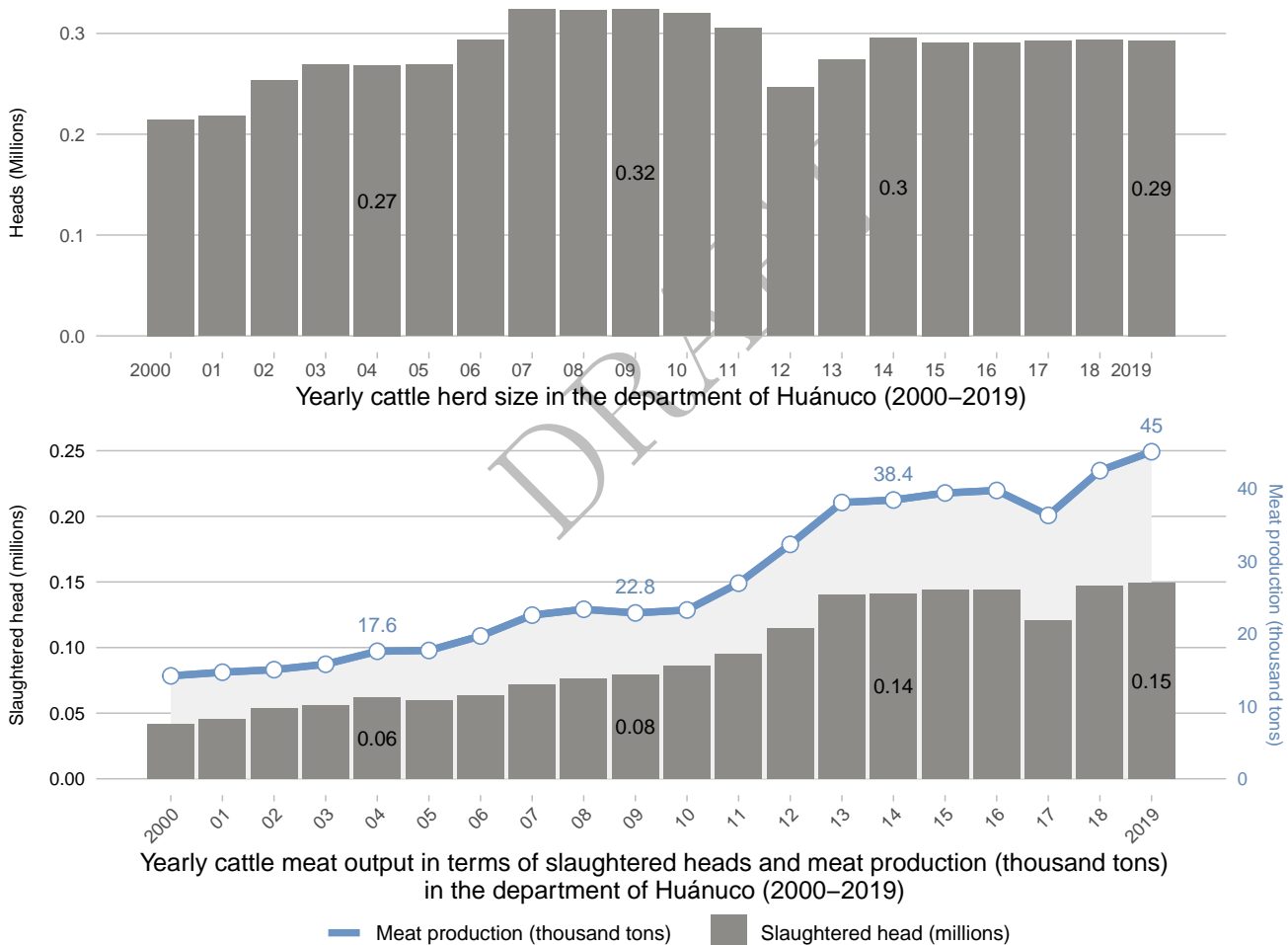


Figure 6: Emissions from deforestation (left) and avoided emissions (right) (CO<sub>2</sub>eq Millions tons)

## Livestock

Table 2: Livestock indicators in Huánuco

				
	<i>Cattle</i>	<i>Pig</i>	<i>Poultry</i>	<i>Fish</i>
Year	2019	2019	2019	NA
Herd size:	292,866	405,725	1,761,432	
Slaughtered heads:	149,251	208,424	646,070	
Meat production (tons):	45,032	10,772	1,610	
Value (thousands):				S/NA PEN





## Agriculture

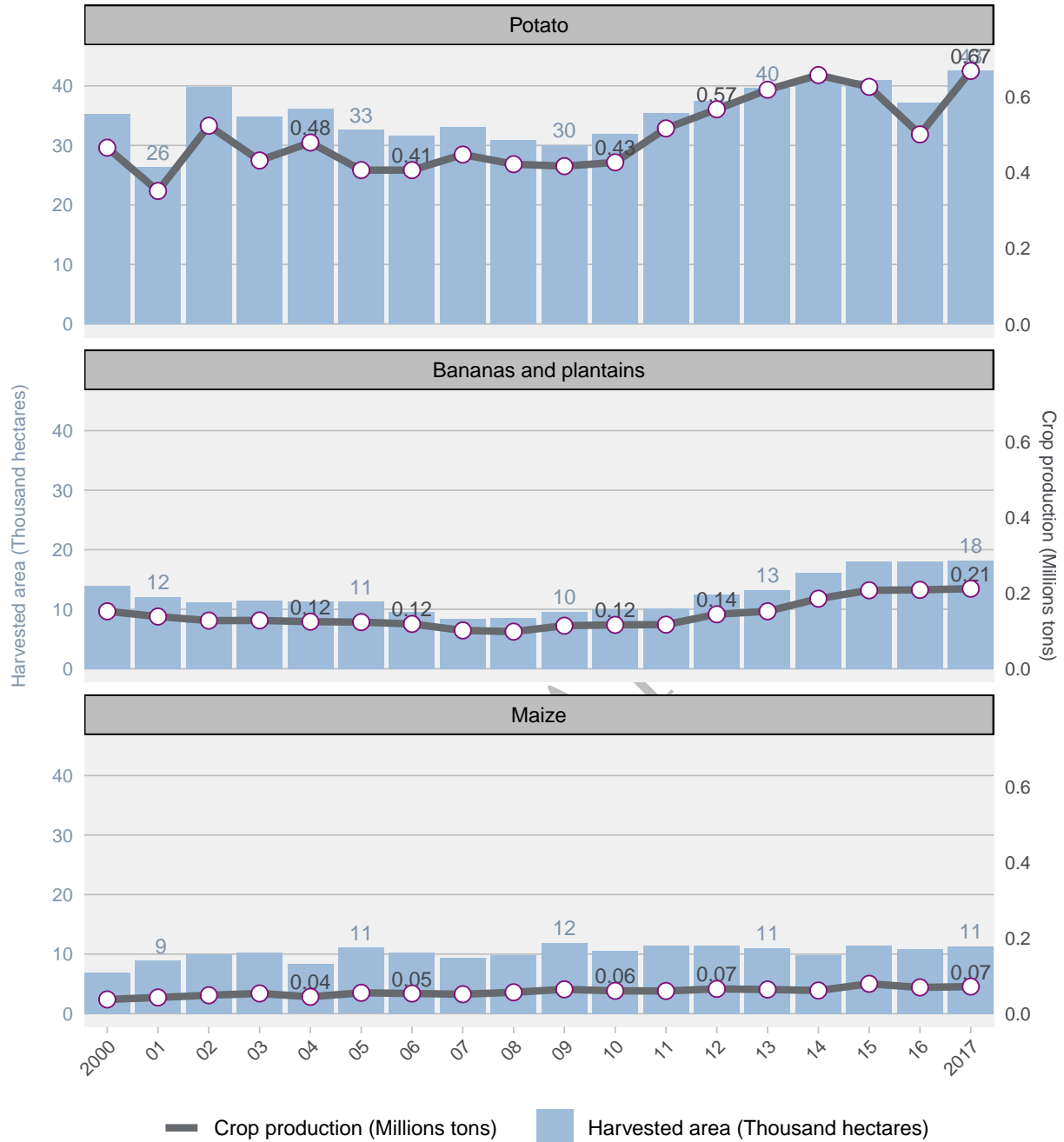


Figure 7: Harvested area and production of the three crops most produced in Huánuco



## Aquaculture

The plot shows the aquaculture production in the department of Huánuco 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>

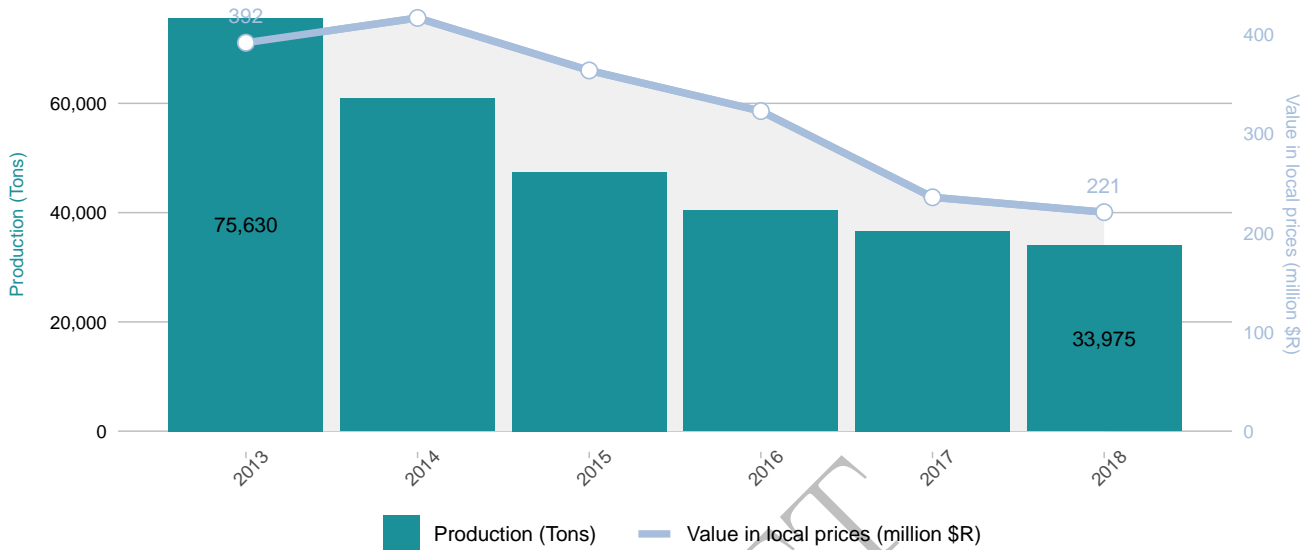


Figure 8: Yearly aquaculture production (tons) and value of production (Reales) in Huánuco

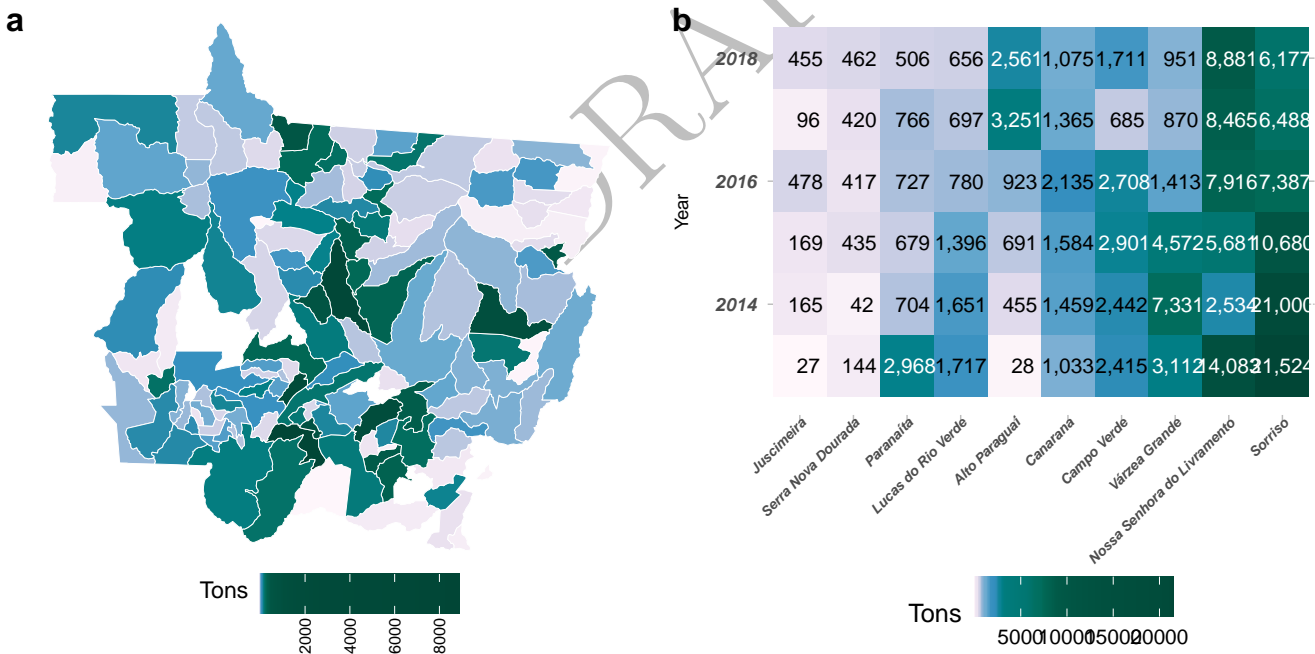


Figure 9: a) Yearly aquaculture production (tons) in districts of Huánuco in 2018. b) Yearly aquaculture production by districts (Tons)

<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.