Peruvian Amazon



Indicators brief

Peru area:	$1,285,216 \ \mathrm{km^2}$			
Peruvian Amazon area:	$897,417 \ { m km^2}$			
Original forest area:	$763,027 \text{ km}^2$			
Current forest area (2019):	$682,752 \text{ km}^2$			
Yearly deforestation (2019):	$1,474 \mathrm{~km^2}$			
Yearly deforestation rate (2019):	0.22%			
Interannual deforestation change (2018-2019):	-4.8%			
Accumulated deforestation (2001-2019):	$23,485 \text{ km}^2$			
Protected conservation areas:	$217,708 \text{ km}^2$ (16.9% of Peru)			
Carbon stocks (2017):	388 millions tons (above ground biomass)			
NA	NA			
NA	NA			
More on jurisdictional sustainability	State of jurisdictional sustainability			
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Forest and people

In 2019, the estimated area of tropical forest in the Peruvian Amazon was $682,752 \ km^2$, distributed among 15 departments (see Figure 1). This represented 53.12% of the area of Peru and about 4% of the global tropical forest area. The Peruvian Amazon concentrates about 4.56% of the carbon reserves stored in the biomass of the world's tropical forest.

There were about 15.18 million people living in the Peruvian Amazon as of 2020, distributed in 15 departments. The largest city was Trujillo (La Libertad) with a population of 0.3 million people. There were 70 settlements with at least 40,000 people (see Figure 2). 9.9% of the area was delimited as indigenous territories where an estimate of 192,812 indigenous people lived as reported in the most recent census of 2017.



Figure 1: Distribution of Amazon forest area among Peruvian departments



Figure 2: Maps of most populated places (> 40,000 people) and indigenous and protected areas in Peruvian Amazon

Deforestation

Forest tropical deforestation in the Peruvian Amazon has remained relatively stable since 2012 with an average deforestation rate around 0.22% and an average yearly loss area of 798 km² over the last 5 years. In a seemingly positive trend, deforestation has declined over the last three years, but it is still nearly double of the yearly losses registered in the early 2000's. The total accumulated forest lost during the period 2002-2019 was 23,485 km², equivalent to 3.3% of the forest area remaining in 2002 (Table 1 and Figure 3).

The deforestation in the Peruvian Amazon in 2019 was $1,474 \text{ km}^2$, which represented a decline of 4.8% with respect to 2018 (preliminar data subject to change). The yearly deforestation rate, which indicates the percentage of remaining forest that is lost every year, was 0.22% in 2019, and has remained above 0.2% since 2012. The deforestation in the Peruvian Amazon is 0.2% below the reference baseline 2001-2014 (Figure 3).

The cleared forest area over the last two decades is contained mainly in the states of Loreto (19.3%), San Martín (19.1), Ucayali (17.9%) and Huánuco (14.2%). In 2019 more than 56% of the deforestation was contained in 3 states: Ucayali (25%), Loreto (16%) and Madre de Dios (15%). Figures 4-5 present the yearly deforestation trends observed in the reported regions.





Ste

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



Year	Forest (km^2)	Deforestation	Deforestation rate (%)	Annual variation (%)
2002	$705,\!436$	798	0.11	-5
2003	704,708	729	0.1	-8.7
2004	703,776		0.13	27.8
2005	$702,\!300$	$1,\!476$	0.21	58.5
2006	$701,\!555$	745	0.11	-49.5
2007	$700,\!493$	1,062	0.15	42.5
2008	$699,\!436$	$1,\!057$	0.15	-0.4
2009	$697,\!915$	$1,\!522$	0.22	44
2010	$696,\!553$	$1,\!362$	0.2	-10.5
2011	$695,\!317$	$1,\!236$	0.18	-9.3
2012	$693,\!822$	$1,\!495$	0.22	21
2013	$692,\!320$	$1,\!503$	0.22	0.5
2014	$690,\!544$	1,776	0.26	18.2
2015	$688,\!979$	$1,\!565$	0.23	-11.9
2016	$687,\!333$	$1,\!647$	0.24	5.2
2017	685,774	$1,\!559$	0.23	-5.3
2018	$684,\!226$	$1,\!548$	0.23	-0.7
2019	682,752	$1,\!474$	0.22	-4.8

Table 1: Forest and deforestation indicators in Peruvian Amazon (2002-2019)



Figure 3: Yearly defore station $\left(km^2\right)$ and defore station baseline



Figure 4: Yearly defore station in most affected departments 2001-2019 $(km^2).$ Darker colors correspond with high values of defore station.



Figure 5: Deforestation in 2019 by (a) departments (km^2) and (b) districts (km^2)

а

b

Burned area

According to the NASA-USGS analysis of MODIS satellite observations, the average yearly burned area in the Peruvian Amazon was 990 km² 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 1,350 km² and the worst year in the last decade was 2010 with 2,311 km² burned. In most years, the months of August and September represented the peak of the fire season (see Figure 5).



Figure 6: Monthly burned area since 2010 (km²). Source: EII analysis of MODIS-MCD64

Emissions from deforestation

The accumulated emissions from deforestation in the Peruvian Amazon between 2001 and 2018 amount to 1,036 million tons of CO2eq. Considering the observed yearly deforestation, the mean carbon density of the Peruvian Amazon forest and the business as usual deforestation baseline, the accumulated gross avoided emissions from deforestation during the period from 2015 to 2018 was 65 million tons of CO2eq. 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 7: Emissions from deforestation (left) and avoided emissions (right) (CO2eq Millions tons)

Aquaculture

The plot shows the aquaculture production in the Peruvian Amazon over the last 6 years and the value of this production. The data includes production of fish such as Tambaqui, Skunk catfish, Tiger shovelnose catfish or Tilapia and includes only activities related with fish farming under controlled conditions. Does not include fishing activities.¹



Figure 8: Yearly aquaculture production (thousand tons) and value of production (million of Reales) in the Peruvian Amazon



Figure 9: a) Yearly aquaculture production (thousand tons) in departments of the Peruvian Amazon in 2018. b) Yearly aquaculture production by departments (000' tons)

¹The 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.