Colombian Amazon

Indicators brief¹

More on jurisdictional sustainability

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Colombia area:

$1,141,748 \text{ km}^2$ $589,570 \text{ km}^2$

State of jurisdictional sustainability

Colombian Amazon area: 648.624 km^2 Original forest area: Current Amazon forest area (2018): 424,361 km² Yearly Amazon deforestation (2018): $1,486~\mathrm{km^2}$ Yearly Amazon deforestation rate (2018): 0.48%Interannual Amazon deforestation change (2017-2018): -3.7%

Accumulated Amazon deforestation (2001-2018): 0 km^2

Protected conservation areas: 129,170 km² (11.3% of Colombia) Carbon stocks (2010): 835 millions tons (above ground biomass) NA NA NA NA

¹ Colombian departments included in the Amazon region (8): Amazonas, Caquetá, Guainia, Guaviare, Meta,

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Forest and people

In 2018, the estimated area of tropical forest in Colombia was 595,878 km^2 , which included forest in the Amazon, Andean, Pacífic and Caribbean regions. The Amazon forest area was 424,361 distributed among 8 departments (see Figure 1), which represented 37.17% of the area of Colombia and about 2% of the global tropical forest area. The Colombian Amazon concentrates about 2.82% of the carbon reserves stored in the biomass of the world's tropical forest.

There were about 2.3 million people living in the Colombian Amazon as of 2020, distributed in 8 departments. The largests urban areas in were Villavicencio(Meta) and Florencia(Caquetá), with a population of 0.5 and 0.2 million people, respectively. There were 29 settlements with at least 20,000 people (see Figure 2). 22.6% of the area was delimited as indigenous territories where an estimate of 233,678 indigenous people lived as reported in the most recent census of 2018.

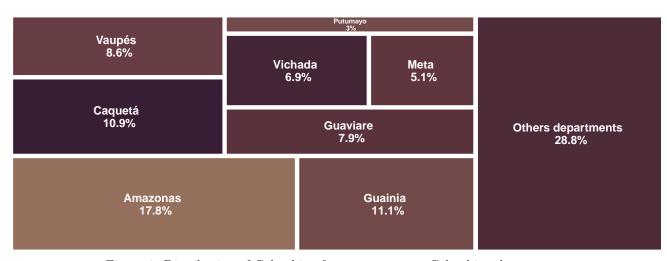


Figure 1: Distribution of Colombian forest area among Colombian departments

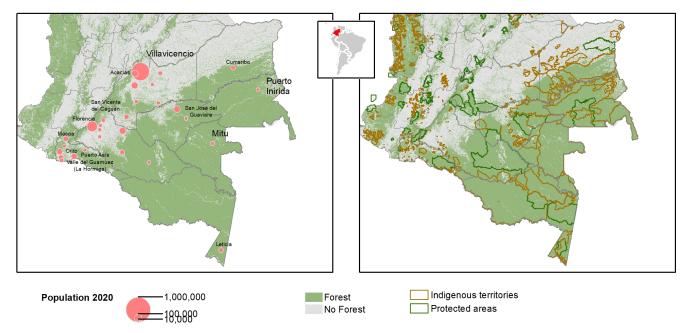


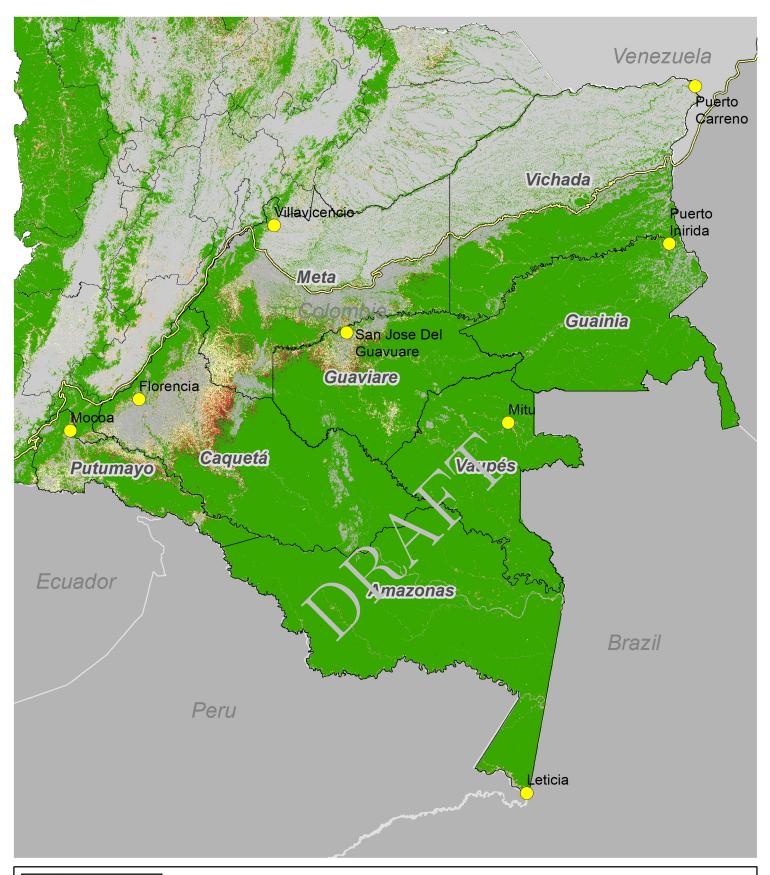
Figure 2: Maps of most populated places (> 20,000 people) and indigenous and protected areas in Colombian Amazon

Deforestation

Deforestation in Colombia declined rapidly till 2014 when it registered a yearly loss of $1,197~\rm km^2$. However, yearly losses increased rapidly over the last 3 years, with average levels of $1,931~\rm km^2$ and average deforestation rates above 0.3%. The total accumulated forest lost during the period 2001-2018 was $42,290~\rm km^2$, equivalent to 6.7% of the forest area remaining in 2001. Losses in the Colombian Amazon, have followed a similar trend. The Amazon forests of Colombia represent 71% of the Colombian forest in 2018 and 46% of the total deforestation since 2001. 2017 and 2018 have represented by far the largest yearly forest losses in the Colombian Amazon over the last two decades.

The deforestation in the Colombian Amazon in 2018 was 1,485 km², which represented a decline of 3.7% with respect to 2017. The yearly deforestation rate, which indicates the percentage of remaining forest that is lost every year, was 0.48% in 2018, and has remained above 0.46% in the last two years. since 2012. The deforestation in the Colombian Amazon is 0.3% above the reference baseline 2001-2012 (Figure 3).

The cleared forest area over the last two decades in Colombia is contained mainly in the departments of Caquetá (14.8%), Meta (12.6%), Antioquia (8.4%) and Guaviare (7%). In 2018 more than 65% of the national deforestation was contained in 3 Amazon departments: Caquetá (24%), Meta (23%) and Guaviare (18%). Figures 4-5 present the yearly deforestation trends observed in the reported regions.





Colombia Forest and accumulated deforestation

The map shows the most recent forest cover and yearly deforestation mapped by IDEAM, Colombia.

Intense red colors represent the most recent deforestation whereas light orange colors earlier deforestation as noted in the legend

Forest 2018 Deforestation 1991 2018 Amazon biome

Table 1: Forest and deforestation indicators for Colombia national level (N) and Amazon region (A) (2001-2018)

	Forest (km^2)		Deforestation		Deforestation rate (%)		Annual variation (%)	
Year	N	A	N	A	N	A	N	A
2001	635,000	442,552	3,153	1,274	0.50	0.38	18.89	1.31
2002	$631,\!847$	$441,\!278$	$3,\!153$	$1,\!274$	0.50	0.38	-	-
2003	628,693	440,003	$3,\!153$	1,274	0.50	0.38	-	-
2004	$625,\!540$	438,729	$3,\!153$	$1,\!274$	0.50	0.38	-	-
2005	$622,\!387$	$437,\!454$	$3,\!153$	$1,\!274$	0.51	0.39	-	-
2006	$619,\!615$	$436,\!411$	2,772	1,043	0.45	0.31	-10.66	-18.13
2007	$616,\!842$	$435,\!367$	2,772	1,043	0.46	0.31	-	-
2008	614,070	$434,\!324$	2,772	1,043	0.46	0.31	-	-
2009	611,297	$433,\!280$	2,772	1,043	0.46	0.31	-	-
2010	$608,\!525$	$432,\!237$	2,772	1,043	0.46	0.31	-	-
2011	606,928	$431,\!207$		1,030	0.27	0.30	-41.1	-1.25
2012	$605,\!330$	$430,\!178$		1,030	0.27	0.31	-	-
2013	604,155	$429,\!415$	$1,\!175$		0.20	0.24	-27.18	-25.92
2014	$602,\!850$	428,793	$1,\!305$	622	0.23	0.20	16.06	-18.48
2015	$601,\!652$	$428,\!166$	$1,\!197$	627	0.21	0.20	-11.63	0.8
2016	599,928	$427,\!369$			0.30	0.26	43.99	27.27
2017	597,796	$425,\!840$	$2,\!145$	1,542	0.37	0.46	23.17	93.23
2018	$595,\!878$	$424,\!361$	1,925	$1,\!485$	0.33	0.48	-10.37	-3.7

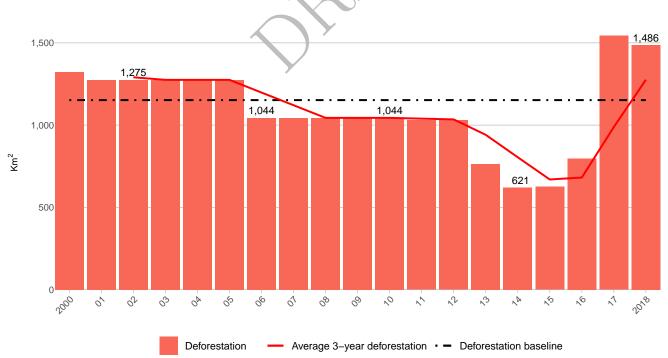


Figure 3: Colombian Amazon yearly deforestation (km^2) and deforestation baseline

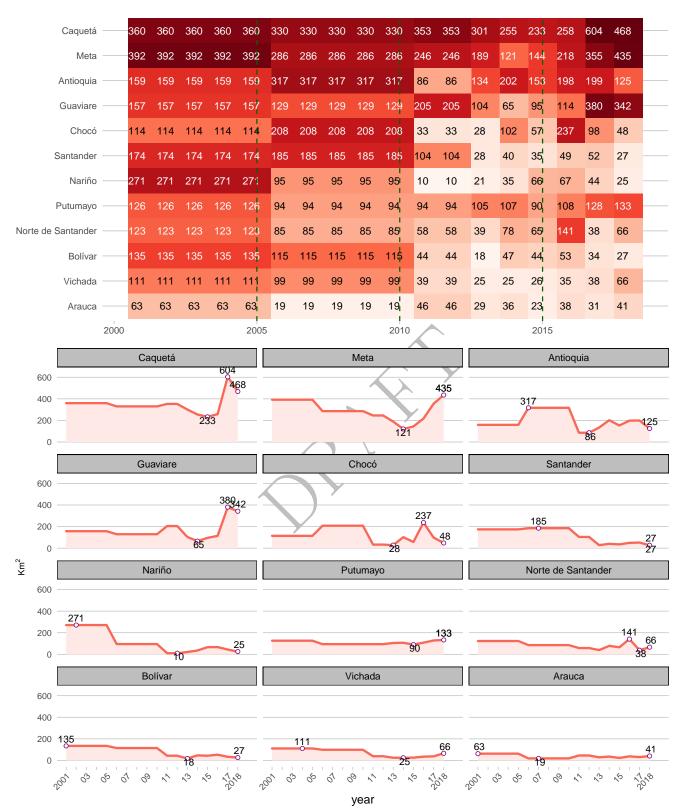


Figure 4: Yearly deforestation in most affected departments 2001-2018 (km^2) . Darker colors correspond with high values of deforestation.

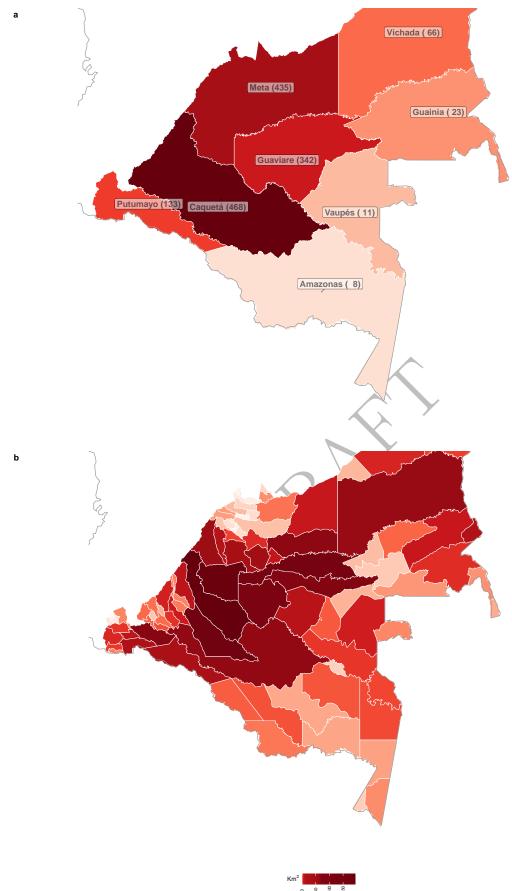


Figure 5: Colombian Amazon deforestation in 2018 by (a) departments (km^2) and (b) municipalities (km^2)

Burned area

According to the NASA-USGS analysis of MODIS satellite observations, the average yearly burned area in the Colombian Amazon was $13,867~\rm km^2$ 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 $10,534~\rm km^2$ and the worst year in the last decade was 2018 with $19,821~\rm km^2$ burned. In most years, the months of February and January represented the peak of the fire season (see Figure 5).

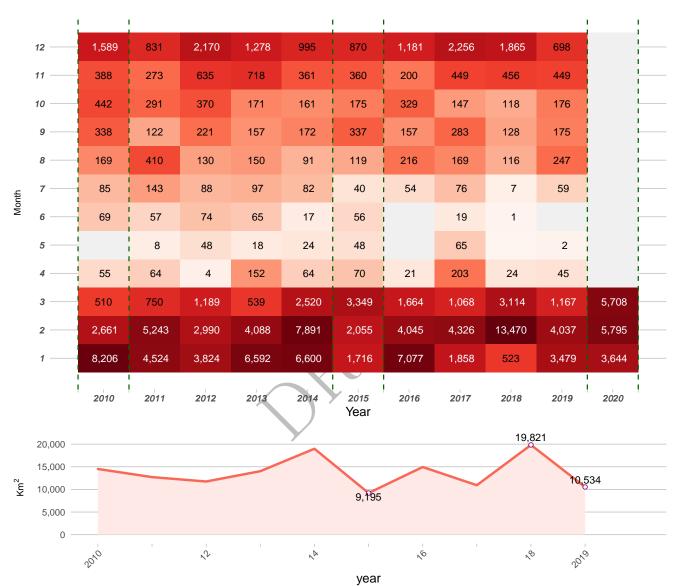


Figure 6: Monthly burned area since 2010 (km²). Source: EII analysis of MODIS-MCD64

Emissions from deforestation

The accumulated emissions from deforestation in the Colombian Amazon between 2000 and 2018 amount to 1,203 million tons of CO2eq. Considering the observed yearly deforestation, the mean carbon density of the Colombian Amazon forest and the business as usual deforestation baseline, the accumulated gross avoided emissions from deforestation during the period from 2013 to 2018 was 144 million tons of CO2eq. This results from summing avoided emissions during the period from 2013 to 2018 in which the deforestation was lower than the business as usual deforestation baseline

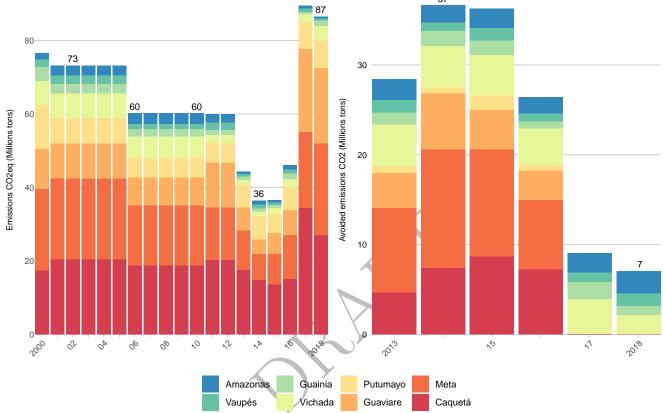


Figure 7: Emissions from deforestation (left) and avoided emissions (right) (CO2eq Millions tons)

Aquaculture

The plot shows the aquaculture production in the Colombian 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 Colombian Amazon

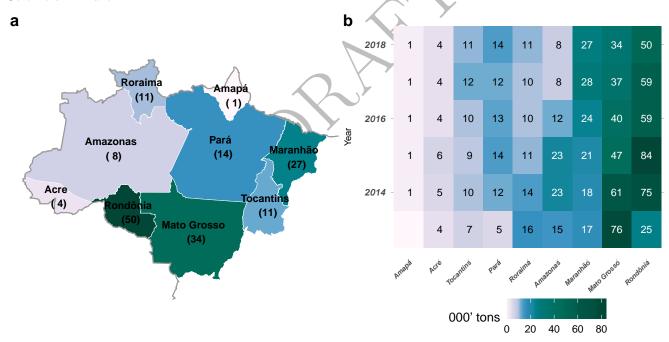


Figure 9: a) Yearly aquaculture production (thousand tons) in departments of the Colombian Amazon in 2018. b) Yearly aquaculture production by departments (000' tons)

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.