
NASA/ADS

Evergreen forest change in the Brazilian Amazon in 2000-2017

Show affiliations

Qin, Y.; Xiao, X.; Dong, J.; Zhang, Y.; Wu, X.; Shimabukuro, Y. E.; Arai, E.; Biradar, C. M.; Wang, J.; Zou, Z.; Liu, F.; Shi, Z.; Doughty, R.; Moore, B., III

The data, information and knowledge on the tropical forest area and dynamics in the Brazilian Amazon remain contentious. Here we generated annual forest maps of the Brazilian Amazon for 2000-2017, which were then used to quantify the annual dynamics of forest area, deforestation, and reforestation. Our annual forest maps revealed ~15% more forest area but annual rates of deforestation twice as high as those from the official Brazilian forestry statistics (PRODES). Over 90% of deforested areas occurred within 5-km of those areas deforested before 2002, a strong indicator of the spatial expansion dynamics of anthropogenic deforestation. Annual forest loss areas were high in those drought years with large amounts of fire and active fire events occurred in ~70% of deforested areas. Forest loss was substantially reduced within protected areas. We also reported the annual reforested area, which offset annual deforestation by about 21%.

Publication:

American Geophysical Union, Fall Meeting 2019, abstract #B13M-2651

Pub Date:

December 2019

Bibcode:

2019AGUFM.B13M2651Q

Keywords:

0439 Ecosystems; structure and dynamics; BIOGEOSCIENCES;

0480 Remote sensing; BIOGEOSCIENCES;

1605 Abrupt/rapid climate change; GLOBAL CHANGE;

6620 Science policy; POLICY SCIENCES & PUBLIC ISSUES

 Feedback/Corrections? (</feedback/correctabstract?bibcode=2019AGUFM.B13M2651Q>)