

An aerial photograph showing a vast tropical forest. A large, irregularly shaped area of the forest has been cleared, revealing a light brown, sandy soil. This cleared area is divided into numerous rectangular plots, some of which are planted with young green trees in neat rows, suggesting a reforestation or agroforestry project. Other parts of the cleared area appear to be bare or have sparse vegetation. The surrounding forest is a dense, dark green canopy. The overall scene illustrates the impact of land clearing on a tropical forest.

Remote sensing and deforestation alerts

Mikaela Weisse, WRI

June 24, 2021

**GLOBAL
FOREST
WATCH**

The map displays global forest cover changes from 2001 to 2019. Key features include:

- Color Scale:** Green represents forest cover, while red/pink indicates areas of deforestation.
- Geographic Labels:** Major landmasses and oceans are labeled, including North America, South America, Europe, Africa, Asia, and Australia. Specific countries and regions are also labeled.
- Deforestation Hotspots:** Significant areas of deforestation are visible in the Amazon basin, Central Africa, and Southeast Asia.

Map data ©2016 Google, INEGI

Technical Updates

1. Improved deforestation alert products
2. Increased access to regularly updated, high-resolution imagery
3. New research into detecting selective logging and other drivers



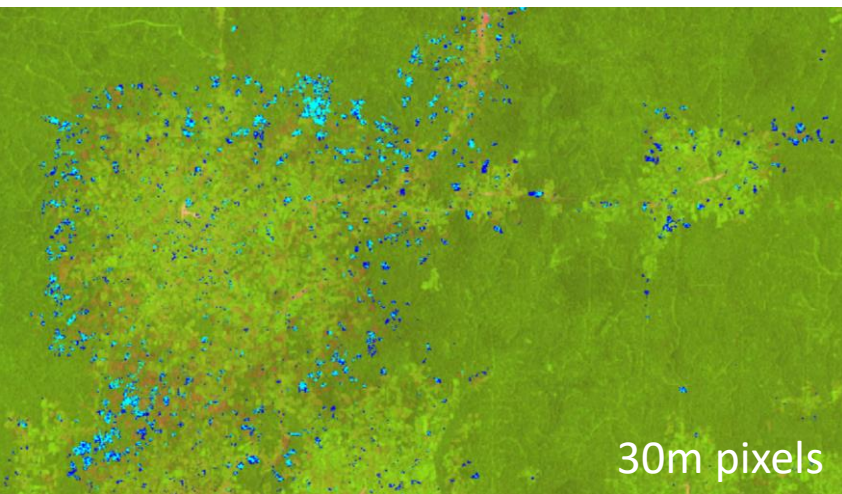



UNIVERSITY OF
MARYLAND

GLAD (Landsat)

Pan-tropical (30°N - 30°S)
All tree cover

~8 day updates, but affected by clouds





A satellite map of a region in Loreto, Peru. The map shows a network of yellow lines representing roads or rivers against a dark green background of forest. In the lower right quadrant, there is a cluster of red pixels, indicating GLAD-S2 alerts. A small white crosshair is visible near the center of the map.

GLAD-S2 alerts

Loreto, Peru

December 2019 – February 2021

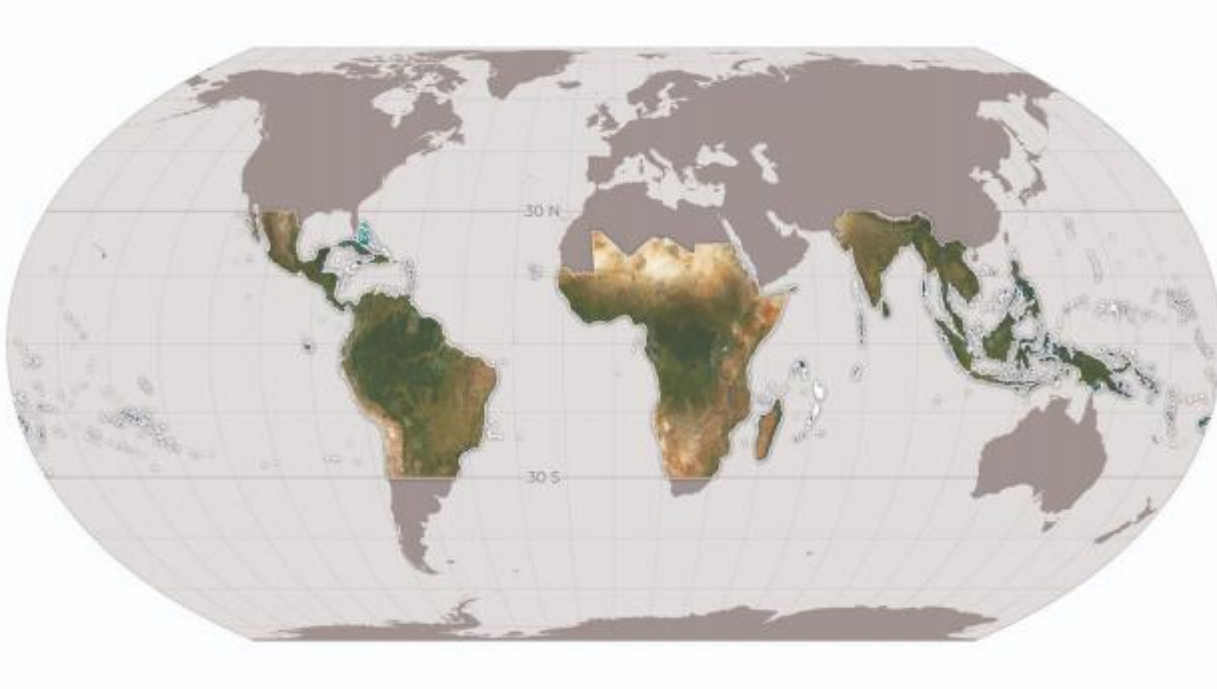
RADD alerts

Central African Republic

January 2019 – December 2020



High-resolution imagery: NICFI Data Program



- Monthly mosaics from Sept 2020, historical biannual mosaics starting in 2016
- 5-meter resolution
- Pan-tropical coverage
- Freely available for viewing (e.g. on GFW) and download
- Through Sept 2022, with potential for 2-year extension



Norwegian Ministry
of Climate and Environment



NICFI

Norway's International Climate and Forest Initiative

KSAT
KONGSBERG SATELLITE SERVICES



AIRBUS



June-August 2020

Planet mosaic

Central Kalimantan, Indonesia



September 2020

Planet mosaic

Central Kalimantan, Indonesia



December 2020

Planet mosaic

Central Kalimantan, Indonesia



March 2021

Planet mosaic

Central Kalimantan, Indonesia



April 2021

Planet mosaic

Central Kalimantan, Indonesia

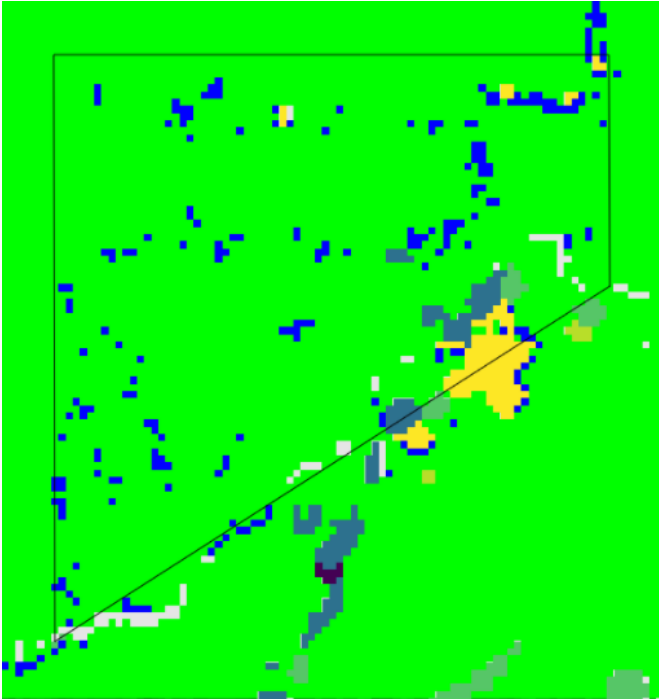
A satellite mosaic image of Central Kalimantan, Indonesia, from May 2021. The image shows a large area of deforestation, with a grid-like pattern of cleared land (brownish-tan) interspersed with remaining forest (dark green). A prominent river system is visible, winding through the landscape. The mosaic is composed of many small, overlapping satellite images, creating a patchy appearance. The cleared areas are mostly rectangular, suggesting agricultural or logging activities. The forest areas are more irregular and fragmented. The overall color palette is dominated by dark green for forest and brownish-tan for cleared land, with some lighter green and tan areas indicating different types of vegetation or land use. The river system is a network of dark, winding lines. The mosaic is centered on a specific location, with a small white crosshair visible in the middle of the image.

May 2021

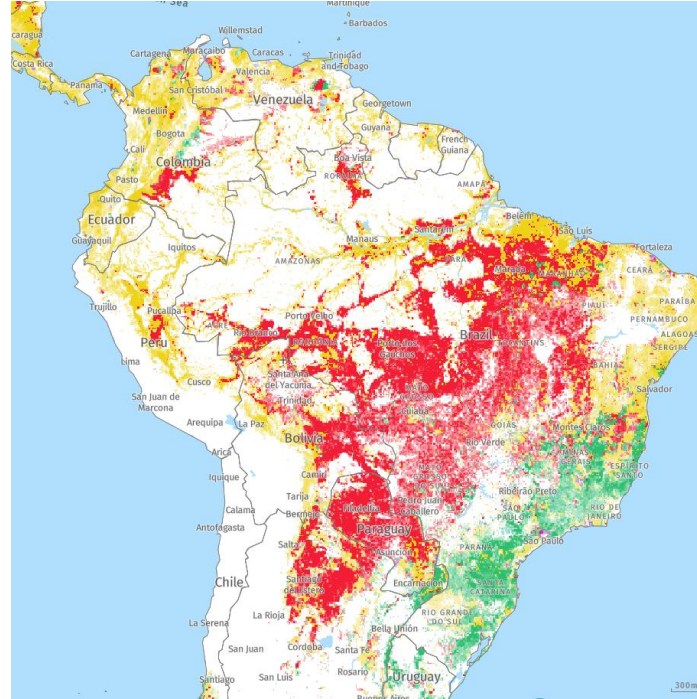
Planet mosaic

Central Kalimantan, Indonesia

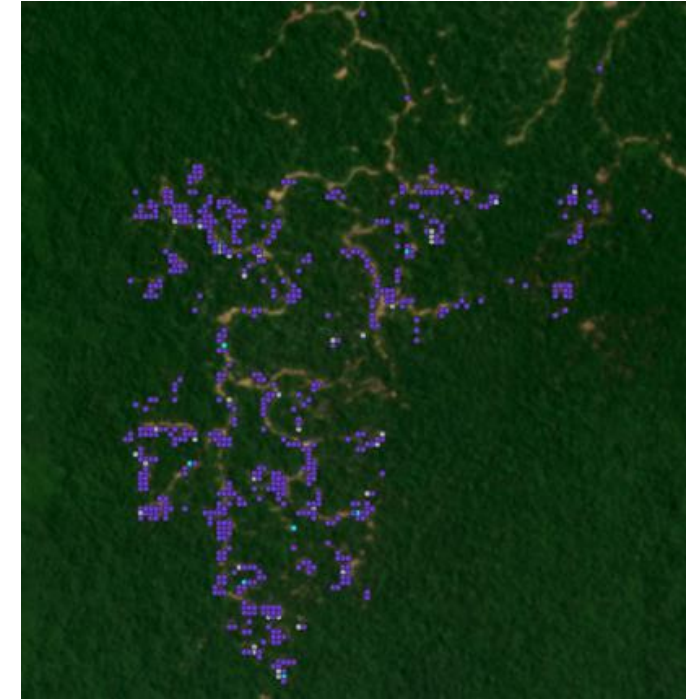
In-progress research



Detection of selective logging
within forest concessions




Refinement of global data
on annual forest loss drivers



Near-real-time mapping
of alert drivers

Workflow for Following-up on Deforestation Alerts





Today's panel

Tom Bewick, Rainforest Foundation US

Ildefonso Riquelme, OSINFOR

Benita Nathania, WRI Indonesia