



## **Planet and Google collaborate in high resolution forest basemaps**

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To enable greater impact from the NICFI Satellite Data Program, Planet has teamed up with Google to make high-resolution, tropical forest Basemaps available within the Earth Engine platform. This brings the power of Google's cloud to the entire NICFI community to run analysis at regional and global levels to study the effects and solutions of tropical forest loss at scales not possible through traditional means. Source: Timberbiz

"From its inception 10 years ago, Google Earth Engine's mission has been a global-scale platform for Earth science data & analysis to further the most pressing environmental and societal issues we face," said Brian Sullivan, Sr. Program Manager at Google.

"By partnering with the NICFI program to connect the first high resolution, deep time series imagery with the latest geospatial and machine learning platforms, groups working to stop deforestation will now have access to insights and solutions at a previously unprecedented scale."

Early Access Users have tested and proven the integration in their real-world applications, facilitating next-level discussions between scientists and policymakers in the fight to reduce and reverse tropical forest loss.

Researchers at Wageningen University in the Netherlands plan to leverage this solution to power machine learning models that can detect forest disturbances at higher spatial and temporal resolutions. Their RADD alert system currently leverages Sentinel-1 radar data to detect forest disturbances at scale; now, with the Planet-NICFI analysis-ready Basemaps available in GEE, they will be able to test whether the driver of change can be classified with high-resolution, near-real time optical data.

"The use of Planet data is an important step forward in obtaining these advanced near real-time insights, as it is the first time that high-resolution time series data <5m with wall-to-wall tropical coverage is openly available," said Bart Slagter, Doctoral Researcher at Wageningen University.

"The high-resolution is necessary [for the model to] to classify small-scale disturbances, such as narrow logging roads, single tree harvesting, small-scale mining, and subsistence agriculture."

At the University of Copenhagen, researchers were previously downloading the Planet-NICFI data to a local server. Now, they can access the data directly in the GEE catalogue, where they plan to bring it into their custom studies on biomass mapping, tree species classification, and restoration monitoring.

Post-doctoral researcher Xiaoye Tong notes that the solution makes research operations much more convenient and enables pantropical analysis that is not possible on local servers. Government agencies are also accessing Planet-NICFI Basemaps in GEE to drive new conservation solutions.

SERVIR is a partnership of NASA and USAID and leading geospatial organizations in Asia, Africa, and Latin America, that helps communities incorporate satellite Earth data into decision-making tackling complex challenges like food security, water resources, and disaster mitigation.

SERVIR partners with countries and organizations to co-develop tools, services, and trainings tailored to local needs. With the integration of Planet-NICFI data into Google Earth Engine, SERVIR can deliver greater convenience to its partners. Access to high-resolution data in GEE provides new level of detail and insight to decision-makers. In West Africa, Planet-NICFI data is already helping SERVIR monitor charcoal production, a key driver of deforestation in the region.

In September 2020, Norway's Ministry of Climate and Environment awarded an international contract to Kongsberg Satellite Services (KSAT), who, in partnership with Planet and Airbus, have since been providing universal access to high-resolution satellite monitoring of the tropics to support efforts to stop deforestation and save the world's tropical forests.

With access to Planet's high-quality data, countries around the globe are better prepared to protect the world's tropical forests against deforestation and tackle climate change.

More information is available at: <https://www.planet.com/nicfi/>

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