



NICFI  
SATELLITE DATA  
PROGRAM



**PROVIDING  
SATELLITE IMAGERY  
OF THE WORLD'S  
TROPICAL FORESTS**

*GFOI Plenary, May 2023*



**AIRBUS**

# + Workshop Agenda

Session	Time (CEST)	Speaker
Welcome	14:00 - 14:05	Charlotte Bishop (KSAT)
Introduction and impact from NICFI	14:05 - 14:10	Karine Hertzberg (NICFI)
<b>Presentation :</b> Overview of the NICFI Satellite Data Program	14:10 - 14:25	Charlotte Bishop (KSAT)
<b>Presentation :</b> Demonstration of access in Open Foris tools	14:25 - 14:40	Erik Lindquist (FAO)
<b>Presentation :</b> Forest Countries testimonials	14:40 - 15:10	Ximena Herrera - Ecuador, Somphavy Keoka – Laos PDR, Brenda Anicia - Uganda
Summary and Q&A	15:15 - 15:30	All





# High-Res for Tropical Forests: The NICFI Satellite Data Program

GFOI Plenary 2023

May 2023 | [nifci-service@ksat.no](mailto:nifci-service@ksat.no)



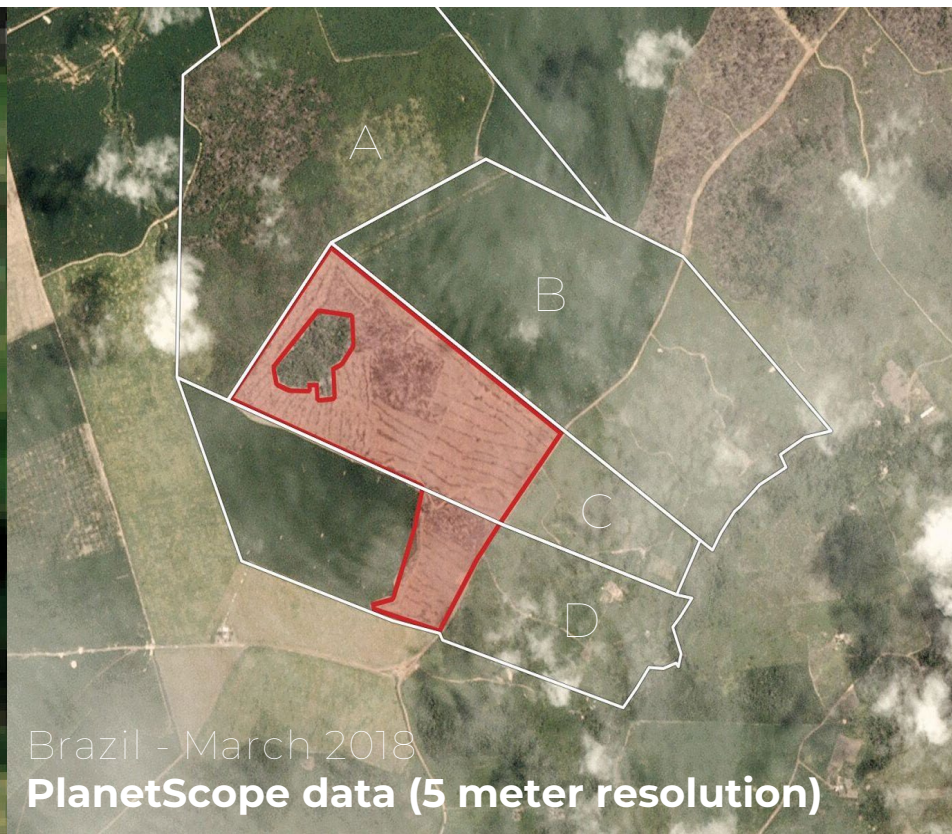
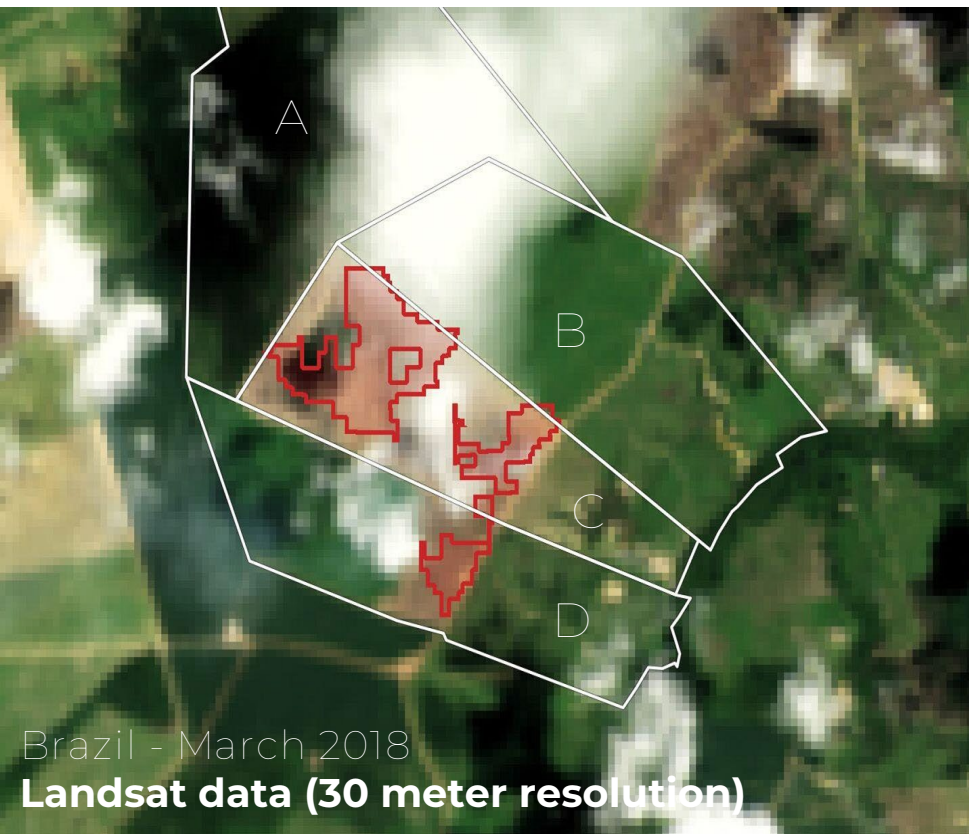
Norwegian Ministry  
of Climate and Environment



An aerial satellite image showing a diverse landscape. On the left, a wide river flows through a dense, dark green forest. To the right, there are large, rectangular agricultural fields in various shades of green and brown, separated by orange-brown roads. A prominent, irregularly shaped area in the center-right shows a mix of brown and green, possibly indicating a cleared area or a specific land use. The overall scene is a mix of natural and human-modified environments.

# Overview of the NICFI Satellite Data Program







## Purpose



## NICFI SATELLITE DATA PROGRAM

*Reducing & reversing the loss of tropical forests,  
contributing to combating climate change,  
conserving biodiversity, and  
facilitating sustainable development.*



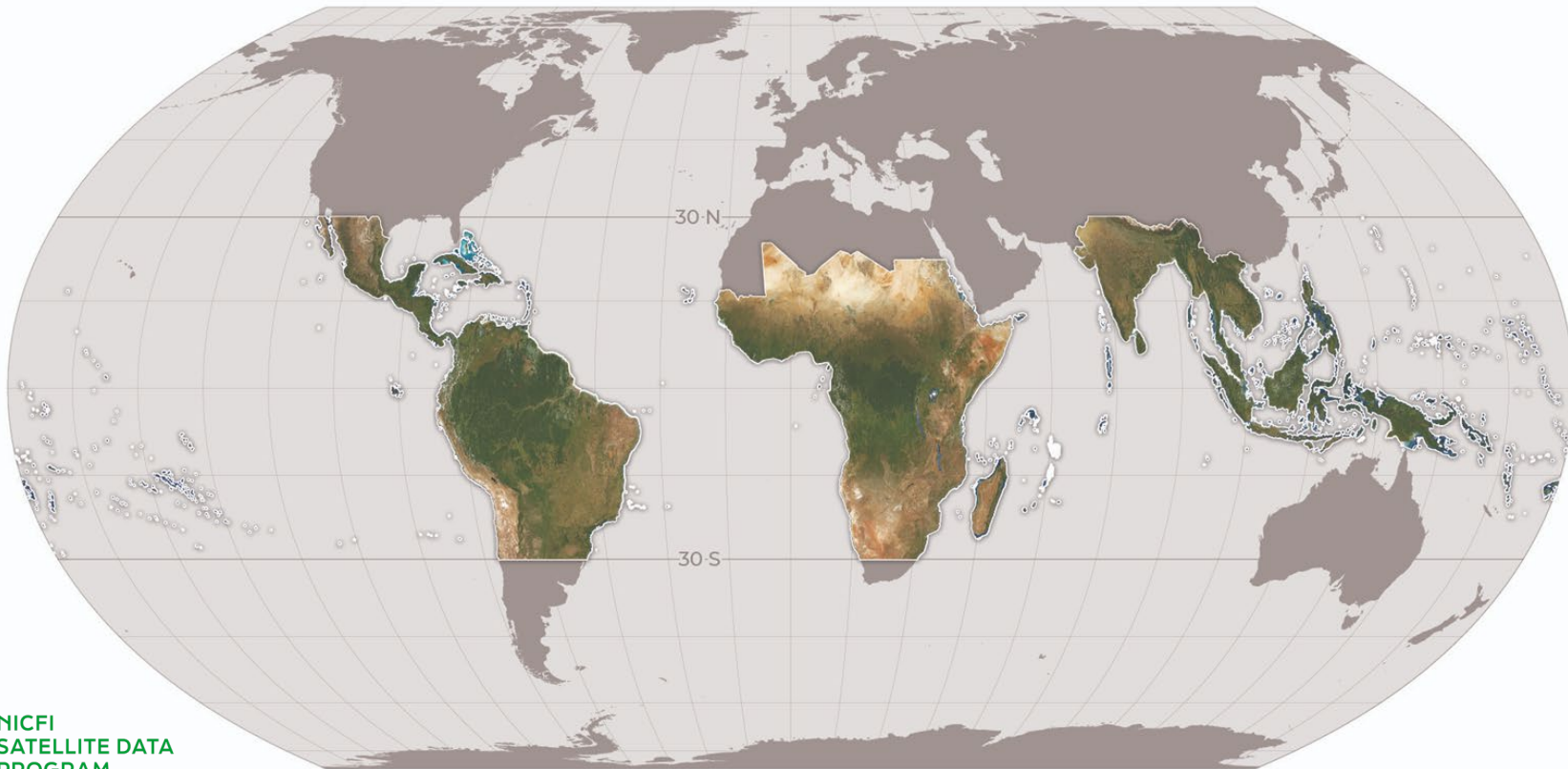
**NICFI**

Norway's International Climate and Forest Initiative

**KSAT**  
KONGSBERG  
KONGSBERG SATELLITE SERVICES



**AIRBUS**



**NICFI  
SATELLITE DATA  
PROGRAM**



# NICFI SATELLITE DATA PROGRAM

> 1000 158 countries

USER STORIES COLLECTED

81 million

TILES STREAMED FROM PLANET  
EXPLORER SINCE Q1 2021

REGISTERED TO USE THE  
PROGRAM

> 40

JOURNAL ARTICLES IN  
PEER REVIEW PROCESS  
SINCE 2021

> 50%

OF TOTAL BASEMAP SELECTIONS  
ON GFW ARE THE NICFI  
BASEMAPS

70%

OF USERS SURVERVED USE THE  
PROGRAM AS THEIR PRIMARY  
IMAGE SOURS

97 countries

COVERED BY THE  
PROGRAM

18500

USERS REGISTERED SINCE  
OCTOBER 2020



NICFI

Norway's  
International Climate  
and Forest Initiative



AIRBUS

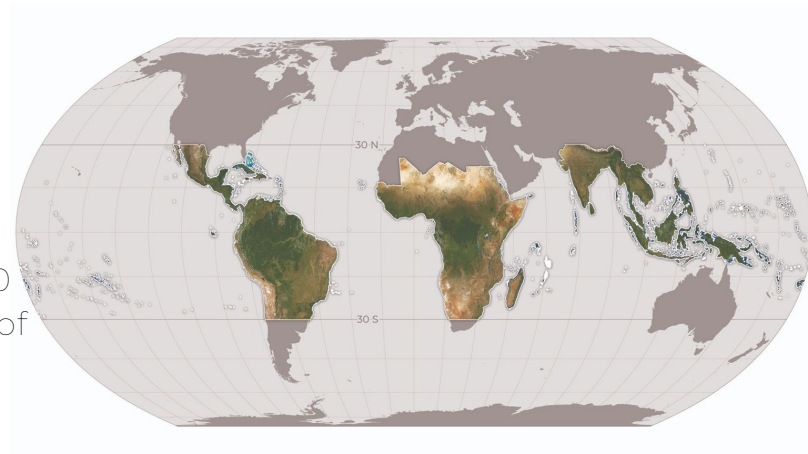




**Data Products**

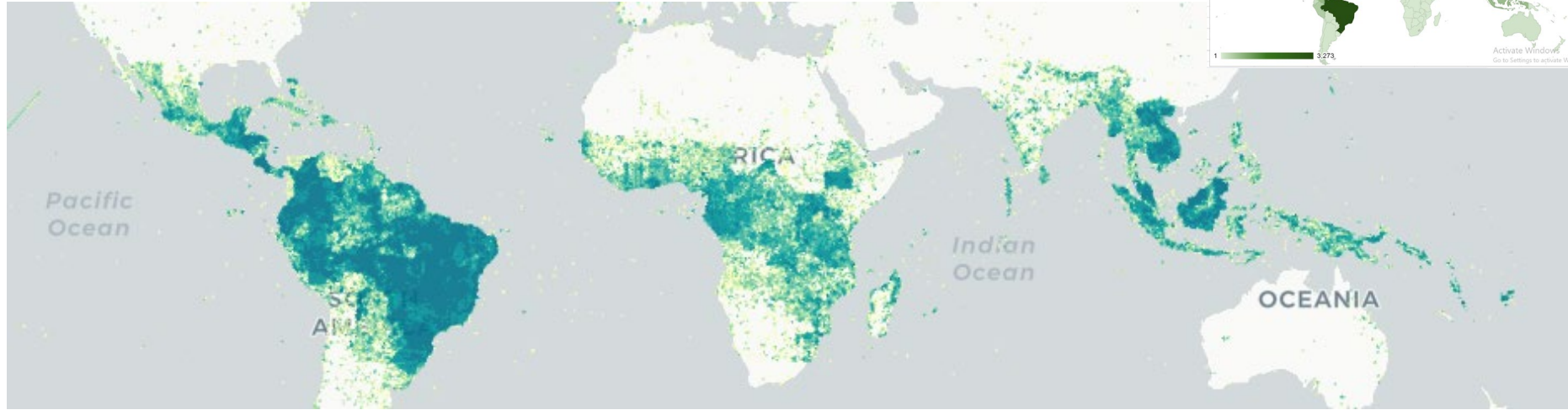
# + Data Products

- **Mosaics:**  
Visual & Analysis-Ready Surface Reflectance
  - Spatial Resolution: 4.77m per pixel
  - Spectral Resolution: RGB & RGB+NIR
- **Cadence**
  - Bi-annual: December 2015 – August 2020
  - Monthly: September 2020 until the end of the program
- **CC-Non-Commercial License**
- **Historical Airbus archive for strategic partners**
  - Spatial Resolution: 5-6m per pixel
  - Spectral Resolution: NIR+RG & RGB+NIR





# + Tropical coverage, worldwide participation



*NICFI-Planet basemaps streaming between September 2020 and August 2022.*





**Where to Access**





Where to Access

[www.planet.com/nicfi](http://www.planet.com/nicfi)

NICFI  
SATELLITE DATA  
PROGRAM

## Norway's International Climate and Forests Initiative Satellite Data Program

Through Norway's International Climate & Forests Initiative (NICFI), users can now access Planet's high-resolution, analysis-ready mosaics of the world's tropics in order to help reduce and reverse the loss of tropical forests, combat climate change, conserve biodiversity, and facilitate sustainable development for non-commercial uses.

LEARN MORE FROM USERS    SUPPORT RESOURCES    HELP DESK    SIGN UP



NICFI  
SATELLITE DATA  
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Norway's International Climate and Forests Initiative



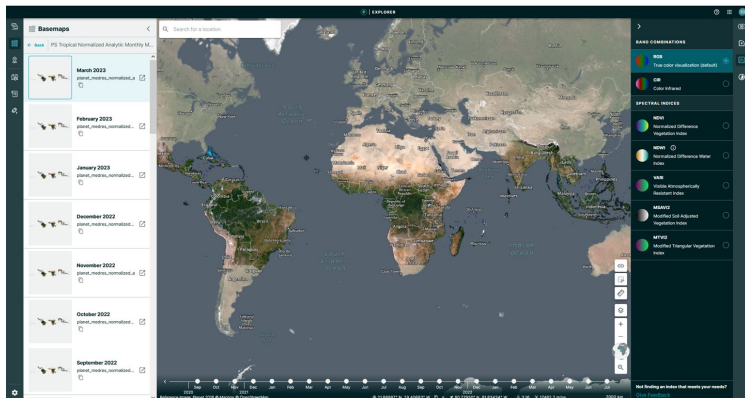
KONGSBERG SATELLITE SERVICES



AIRBUS

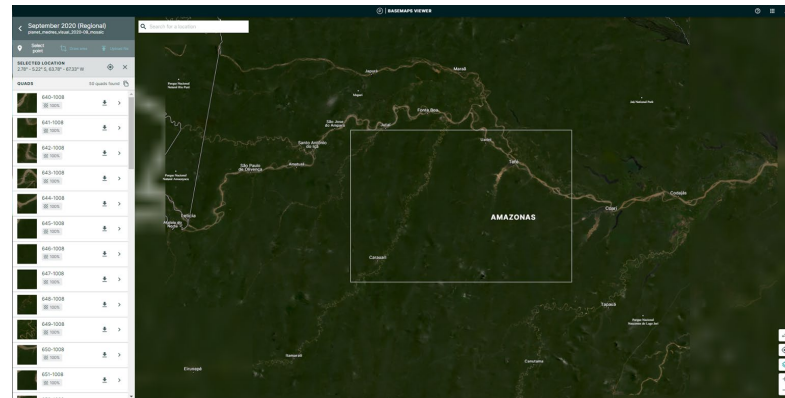
# + Planet Explorer & Basemap Viewer

[www.planet.com/explorer](http://www.planet.com/explorer)



- Timeline feature
- Spectral analysis tool
- Compare tool
- Draw polygons and save them as geojsons
- Basemap viewing

[www.planet.com/basemaps/#/mosaic](http://www.planet.com/basemaps/#/mosaic)



- Draw Area
- Upload Polygon
- Download quads (One at a time/ No bulk download)



# + Mosaics API & WMTS/XYZ Streaming

- WMTS/XYZ Streaming for Basemap
  - WMTS/XYZ links
  - Implement streaming in 3rd party software
  - Apply remote sensing indices (e.g. NDVI, CIR etc) as arguments towards the end of your URL
- Python based Command Line Interface for quad download
  - Python 3+ required
  - Allows for bulk download of all quads within a bounding box

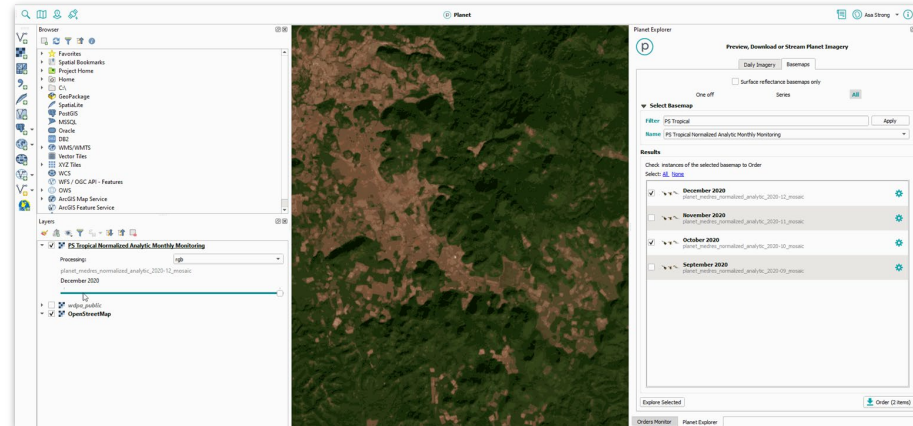
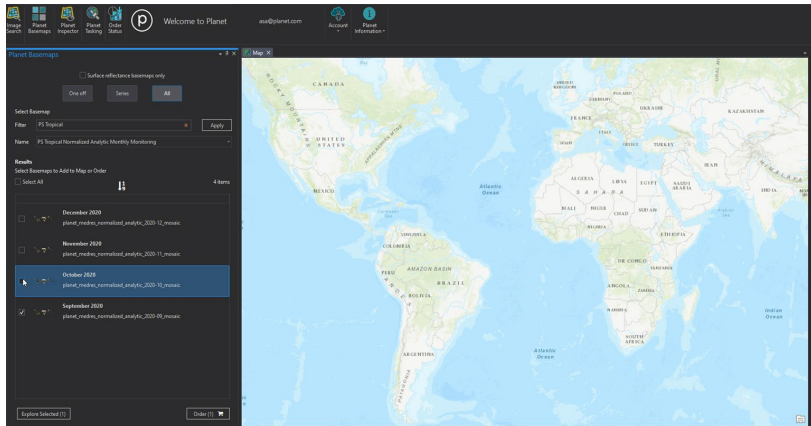
```

python3 planet_cli.py --url http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
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2015-12-20 16:45:00 Mosaic: XYZ: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
2016-05-20 10:16:00 Mosaic: WMTS: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
2016-05-20 10:16:00 Mosaic: XYZ: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
2017-06-20 10:16:00 Mosaic: WMTS: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
2017-06-20 10:16:00 Mosaic: XYZ: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
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2020-06-20 10:16:00 Mosaic: XYZ: http://api.planet.com/basemap/v1/streams/xyz?key=453a21452aa408811345f14a30
  
```



# Planet Integrations

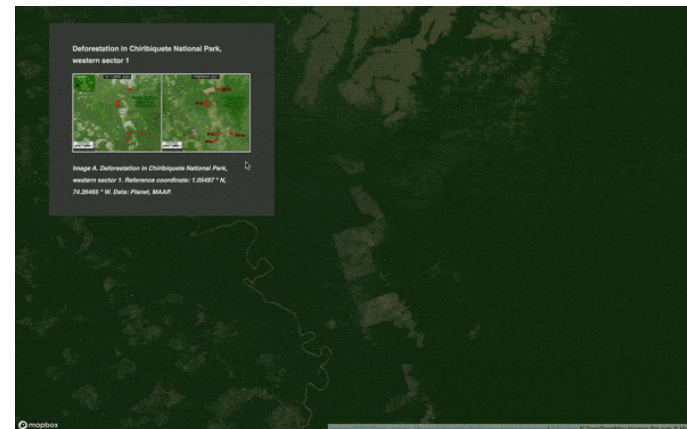
## Bringing Planet-NICFI data to GIS software





# Outreach partners

## Bringing Planet-NICFI data to (geo) tech stacks



Source: UN-FAO. Presented at Global Forest Observations Initiative Plenary, 2021.





# + Where to Access Purpose Allies & Outreach partners

GLOBAL  
FOREST  
WATCH

**SINCE NOV 2020**

~9k selections of the  
Planet-NICFI Basemap per  
month



**SINCE NOV 2020**

~ 300k tile views per month  
35 analysis per week



MAPBIOMAS

**SINCE APR 2021**

11k users  
60k views  
23k sessions



**SINCE DEC 2021**

167 views of NICFI related  
forum posts

**RESTOR**

**UPCOMING  
IN Q2 2023**

QGIS

**SINCE NOV 2021**

~600 active users per week



**SINCE MARCH 2022**

Kick-off of pilot projects



Google Earth Engine

**SINCE NOV 2021**

~600 active users per week



**SINCE MARCH 2022**

Kick-off of pilot projects



**SINCE 2021**

~3 tutorials

*As of August 2022.*



**NICFI  
SATELLITE DATA  
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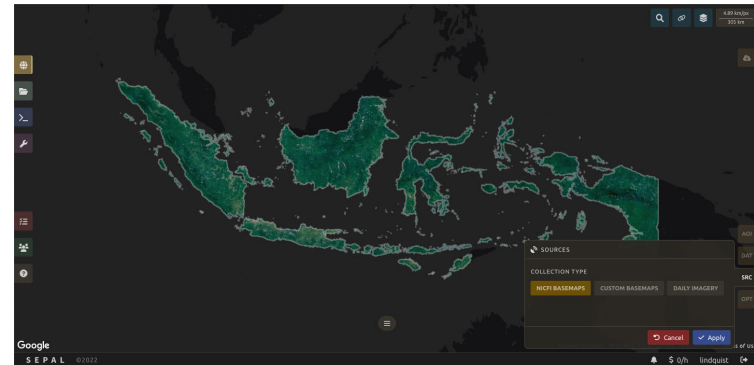
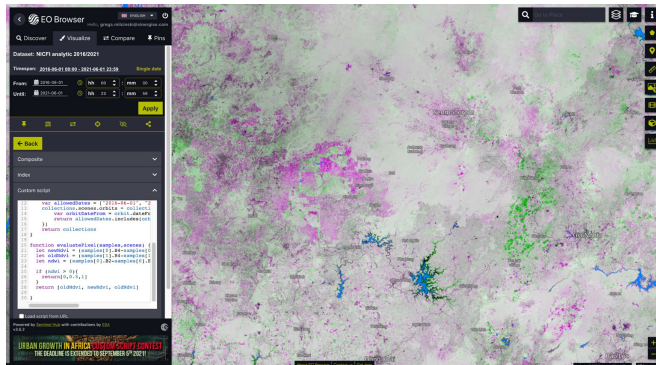
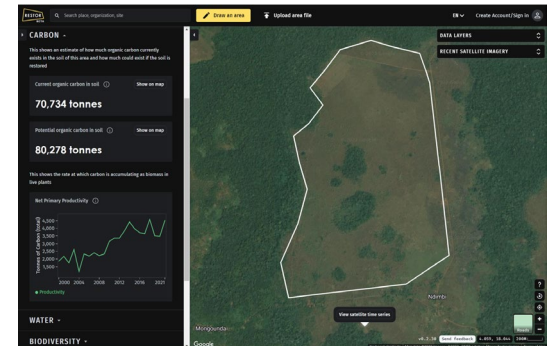
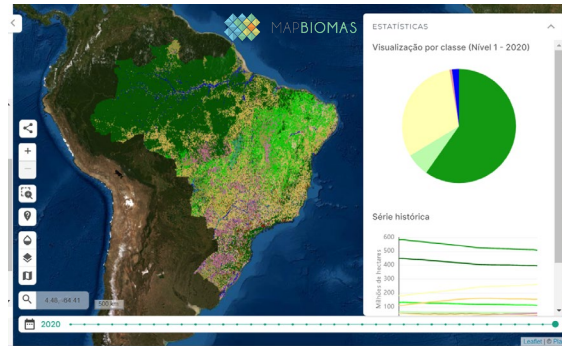
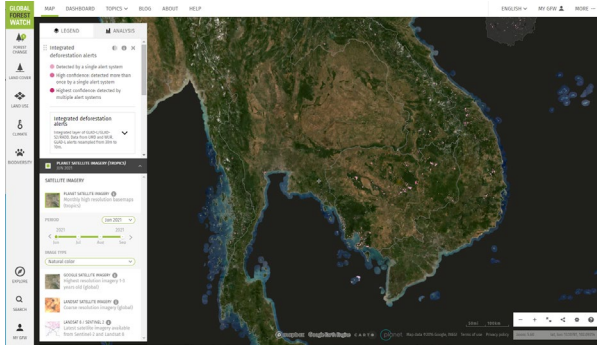
Norwegian International Climate and Forest Initiative



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# + Purpose Allies

## Free and open access





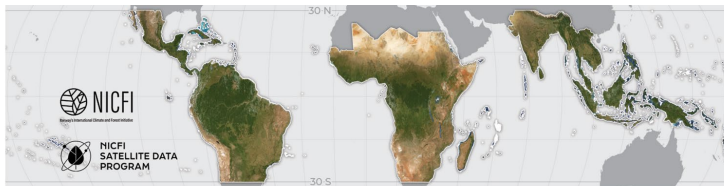


[Learn More](#)





# Where to Learn More



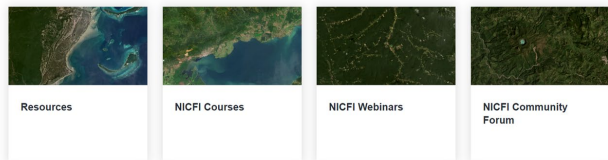
## Welcome to the NICFI Satellite Data Program

Through Norway's International Climate & Forests Initiative (NICFI), anyone can now access Planet's high-resolution, analysis-ready mosaics of the world's tropics in order to help reduce and reverse the loss of tropical forests, combat climate change, conserve biodiversity, and facilitate sustainable development.

In support of NICFI's mission, you can use this data for several projects including, but not limited to:

- Advance scientific research about the world's tropical forests and the critical services they provide.
- Implement and improve policies for sustainable forest management and land use in developing tropical forest countries and jurisdictions.
- Increase transparency and accountability in the tropics.
- Protect and improve the rights of indigenous peoples and local communities in tropical forest countries.
- Innovate solutions towards reducing pressure on forests from global commodities and financial markets.

Please use the options below to learn more about the Program - access available resources, free training courses, example use cases and head to our Community Forum to talk to other NICFI Satellite Data Program users.

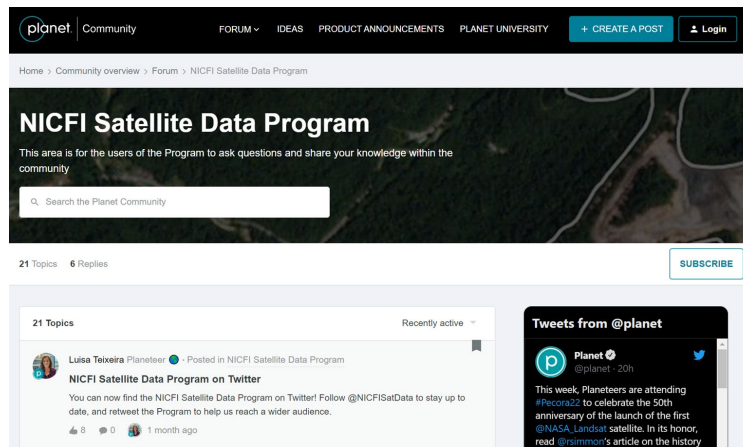


<https://university.planet.com/page/nicfi>



## NICFI Satellite Data Program

@NICFISatData



<https://community.planet.com/nicfi-satellite-data-program-38>



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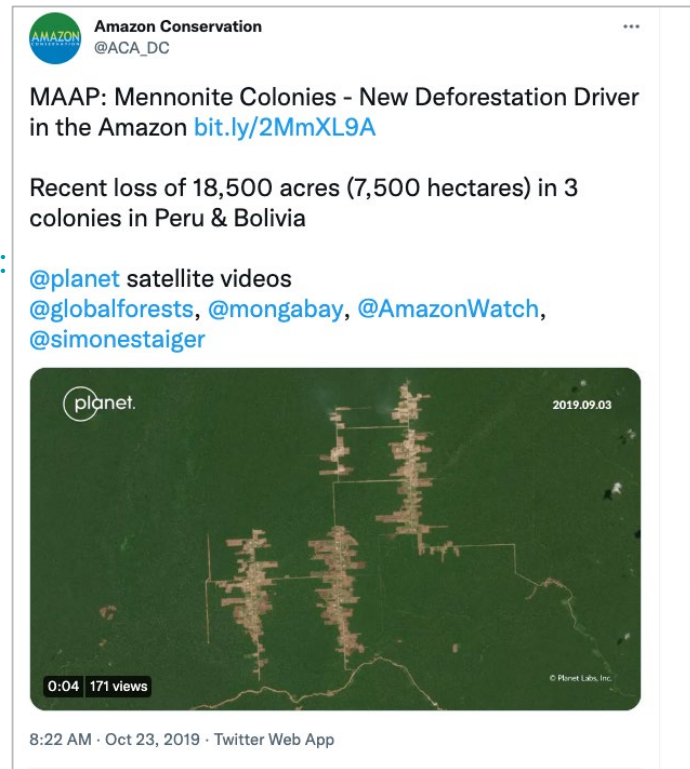


# + User Community

## How to share - guidelines in the Social Media Playbook

Cite Planet Labs Inc. as the source of the Content:  
*e.g. "Imagery © 20xx Planet Labs Inc."*

*Refer to or acknowledge the Program:*  
*e.g. "This data has been provided under the NICFI Satellite Data Program."*



The image is a screenshot of a tweet from the account 'Amazon Conservation' (@ACA\_DC). The tweet text reads: 'MAAP: Mennonite Colonies - New Deforestation Driver in the Amazon [bit.ly/2MmXL9A](https://bit.ly/2MmXL9A)'. Below the text, it says 'Recent loss of 18,500 acres (7,500 hectares) in 3 colonies in Peru & Bolivia'. There are three mentions: '@planet', '@globalforests', '@mongabay', '@AmazonWatch', and '@simonestaiger'. The tweet includes a video player showing a satellite image of the Amazon with yellow lines indicating deforestation. The video player has a 'planet.' logo in the top left, a timestamp '2019.09.03' in the top right, and a progress bar at the bottom showing '0:04' and '171 views'. The video player also has a small copyright notice '© Planet Labs, Inc.' in the bottom right. The tweet is timestamped '8:22 AM · Oct 23, 2019 · Twitter Web App'.





**Demonstration of access in Open Foris  
tools**



An aerial photograph showing a landscape with significant deforestation. A large, irregularly shaped area in the center and right is brownish-grey, indicating cleared land. This deforested area is surrounded by green fields and patches of forest. A river flows along the left edge of the image. The text "Forest Countries & NICFI testimonials" is overlaid in white on a dark semi-transparent rectangular background in the center of the image.

# Forest Countries & NICFI testimonials





# Summary and Q&A





NICFI  
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Upcoming events!

GLOC, 23-25 May, Oslo

IPLC Roundtable with GEO, June 7 - 8, Virtual

WRI Land and Carbon Lab Summit, June 27-29, Brussels

# Thank you!

[nicfi-service@ksat.no](mailto:nicfi-service@ksat.no)

Sign up for the  
NICFI Satellite Data Program at  
[planet.com/nicfi/#sign-up](https://planet.com/nicfi/#sign-up)



Norway's International Climate and Forest Initiative



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Norwegian Ministry  
of Climate and Environment