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# Mit den richtigen Waldprojekten klimaneutral werden. Wie Geotransparenz hilft.

In diesem Vortrag und Workshop möchten wir eine erste Grundlage schaffen, für Unternehmen, die ihren CO2-Footprint mit Carbon Credits aus qualitativ hochwertigen Projekten kompensieren möchten.

# CHALLENGE

## Restoring forest landscapes

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Exploitation and destruction of ecosystems is a threat to biodiversity, economies, and lives on earth.



### Deforestation

10% deforestation since 2001 and 165Gt of CO<sub>2</sub> emissions.

### Mass extinction

1 mil. species threatened with extinction. Extinction rate 100 - 1.000 times higher than natural.

### Soil Erosion

75 billion tonnes of soil erodes per year what leads to financial losses of US\$400 billion annually.

### Greenhouse gas

25% of greenhouse gas emissions come from agriculture.

What the world needs: **more** conservation, reforestation and landscape restoration, regenerative agriculture, rewinding.

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# OVERVIEW

- 1. Unterschiede CO2-Standards und Standardisierungen für Carbon Offset und Waldprojekte im speziellen**
- 2. Beispiele für schlechte Kompensationsprojekte**
- 3. Beispiel für gute Waldprojekte**
- 4. Transparenz und langfristiges Monitoring durch satelliten gestütztes Monitoring**
- 5. Beispiele erfolgreiche Partnerschaften zwischen Projekten und Unternehmen**

- Regenerative Wirtschaftsalternativen?
- CO2-Fußabdruck berechnen
- CO2-Ausstoß vermeiden
- CO2 Emissionen kompensieren

# 1. STANDARDS

- **Avoided deforestation = Entwaldung vermeiden**
- **Improved forest management = CO2-Speicher erhöhen**
- **Reforestation = Aufforsten**
  
- **Standards: VCS, Goldstandard, Plan Vivo, Nationale Standards (USA, UK, Spanien ...)**
- **Zertifizierer/Auditoren: TÜV, SGS, SmartWood, ...**

# 2. BAD EXAMPLES

- **Falsche Anreize:**

- Kompensation führt zu Greenwashing von CO2-intensiven Wirtschaften (Bauindustrie, REWE Klimaneutrales Hähnchen, ...)
- Kompensation ist günstiger als nachhaltigere Alternativen (Disney Kreuzfahrten, Blackstone Flüge)



[Falsche Wald CO2-Zertifikate](#)



**Bloomberg Green**

These Trees Are Not What They Seem

How the Nature Conservancy, the world's biggest environmental group, became a dealer of meaningless carbon offsets.

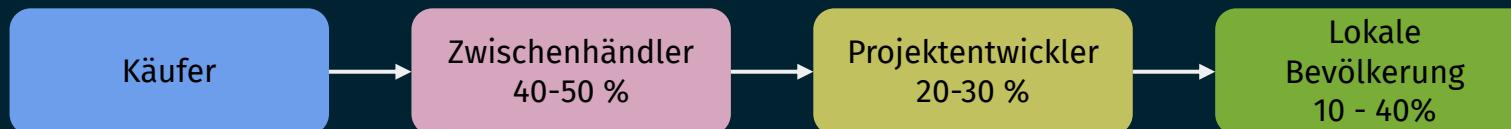
By Ben Elgin  
Published: December 9, 2020, 11:00 AM | Updated: December 9, 2020, 9:15 PM

[These Trees Are Not What They Seem](#)

# 2. BAD EXAMPLES

**~80% aller Wald CO2-Compensation haben gravierende Mängel**

- Falsche Berechnung der CO2-Bindung
- Zustimmung der lokalen Bevölkerung Fehlt
- Verteilung der CO2-Credit Erlöse fragwürdig
- Schlechtes Management
- Entwaldung trotz Zertifizierung



Source: [BFA Global](#)

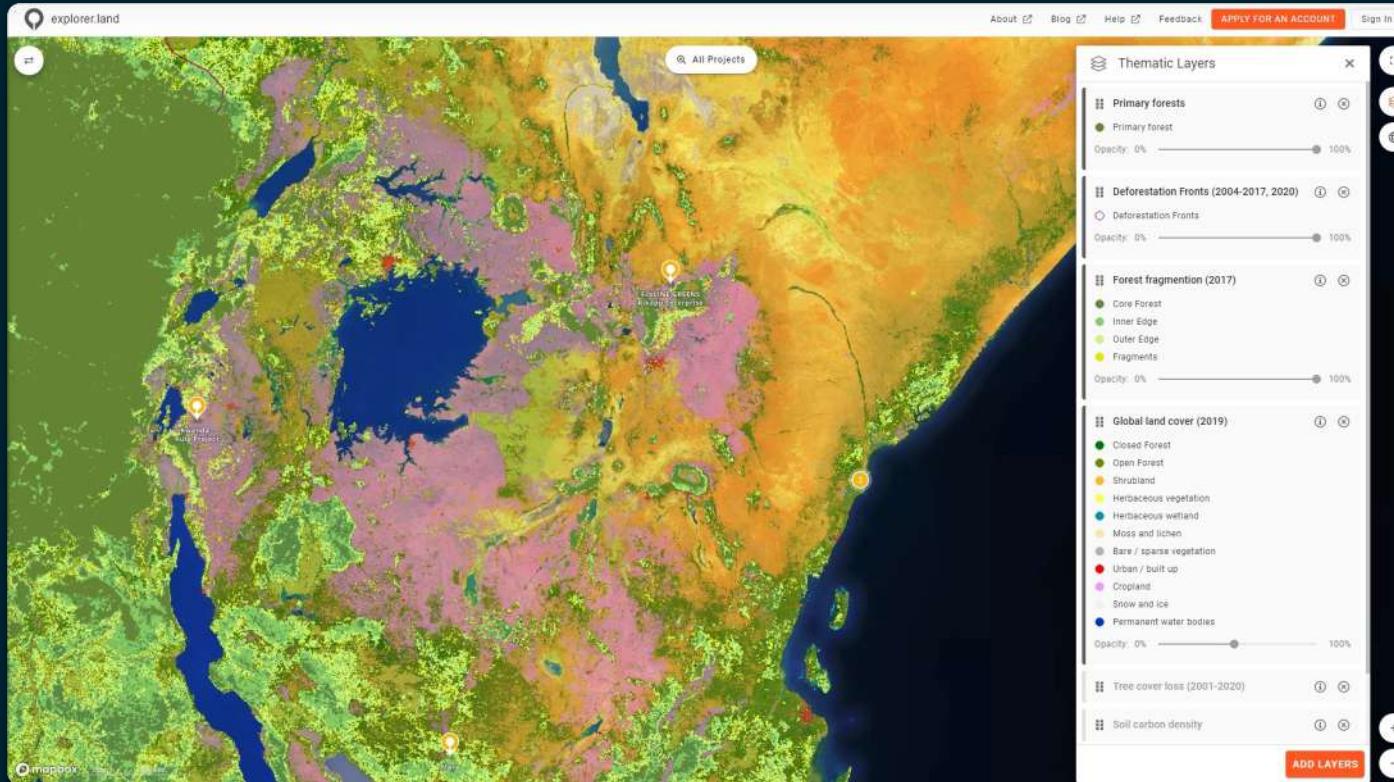
# 3. GOOD PROJECTS

- **Avoided deforestation, improved forest management, reforestation**
- **Additionality = Zusätzlichkeit, zusätzliche CO<sub>2</sub> binden**
- **No leakage = Keine Verschiebung negativer Effekte**
- **Permanence = Dauerhaftigkeit der CO<sub>2</sub> Bindung**

**Überprüfung über Satellitenüberwachung möglich!**

# TRANSPARENCY

## Satellite monitoring



explorer.land

[https://explorer.land/x/project/we/forest\\_mulanje/](https://explorer.land/x/project/we/forest_mulanje/)

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# TRANSPARENCY

## Satellite monitoring

 explorer.land



Remote fire & deforestation monitoring combined with high-resolution aerial photo time series and on-the-ground geo news documentation.

[https://sandbox.explorer.land/alert-demo?dataset=fire\\_alerts&project=alert\\_demo](https://sandbox.explorer.land/alert-demo?dataset=fire_alerts&project=alert_demo)

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# TRANSPARENCY

## Drone maps, and aerial panoramas



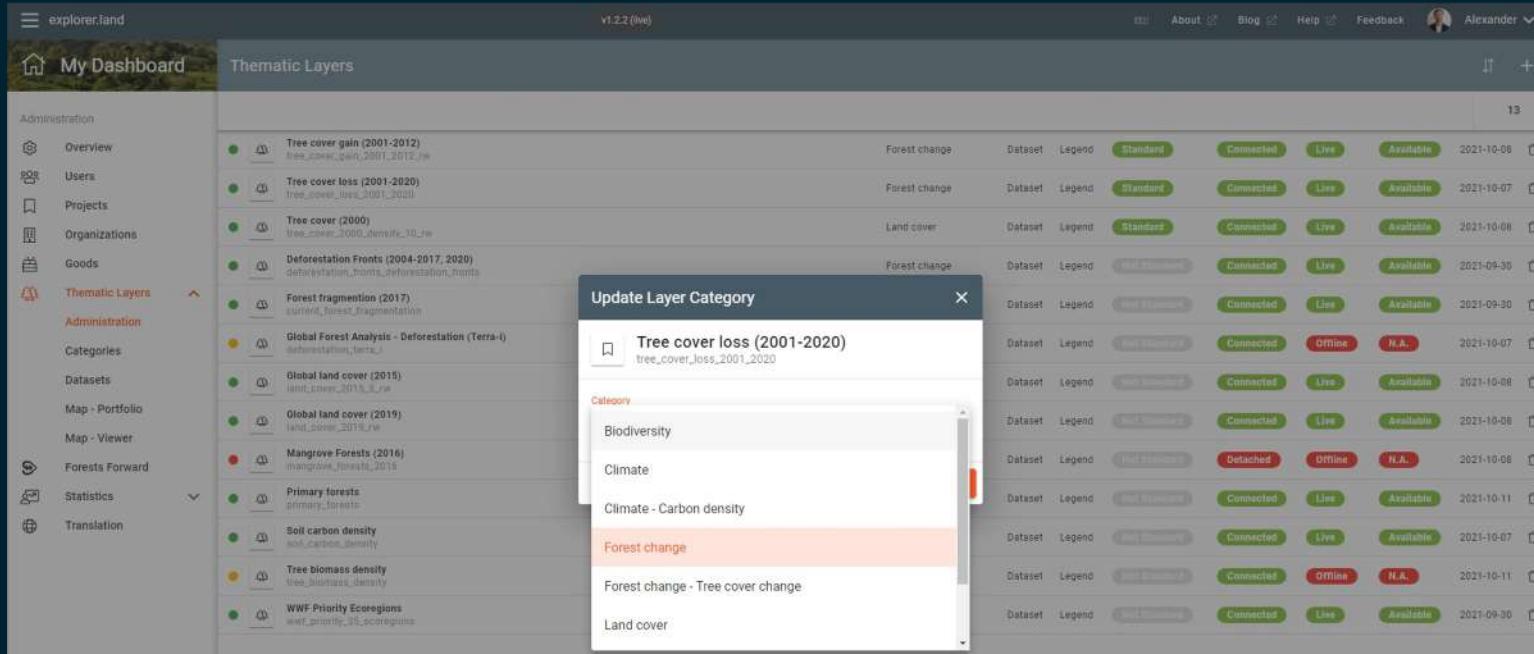
 explorer.land

<https://explorer.land/p/project/ourikaysl/>

<https://panos.openforests.com/tharandt/nordamerika/forestgrowth/>

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# Thematic data layer integration



The screenshot shows the explorer.land platform's Thematic Layers section. On the left, a sidebar navigation includes links for Administration, Overview, Users, Projects, Organizations, Goods, Thematic Layers (which is currently selected), Administration, Categories, Datasets, Map - Portfolio, Map - Viewer, Forests Forward, Statistics, and Translation. The main content area displays a list of thematic layers:

Name	Type	Dataset	Legend	Status	Last Update	Action			
Tree cover gain (2001-2012) tree_cover_gain_2001_2012.tif	Forest change	Dataset	Standard	Connected	Live	Available	2021-10-08		
Tree cover loss (2001-2020) tree_cover_loss_2001_2020.tif	Forest change	Dataset	Legend	Connected	Live	Available	2021-10-07		
Tree cover (2000) tree_cover_2000_density_10.tif	Land cover	Dataset	Standard	Connected	Live	Available	2021-10-08		
Deforestation Fronts (2004-2017, 2020) deforestation_fronts_deforestation_fronts.tif	Forest change	Dataset	Legend	Not Standard	Connected	Live	Available	2021-09-30	
Forest fragmentation (2017) current_forest_fragmentation.tif	Forest change	Dataset	Legend	Not Standard	Connected	Live	Available	2021-09-30	
Global Forest Analysis - Deforestation (Terra-i) deforestation_terra_i.tif	Forest change	Dataset	Legend	Not Standard	Connected	Offline	N.A.	2021-10-07	
Global land cover (2015) land_cover_2015.tif	Land cover	Dataset	Legend	Not Standard	Connected	Live	Available	2021-10-08	
Global land cover (2019) land_cover_2019.tif	Land cover	Dataset	Legend	Not Standard	Connected	Live	Available	2021-10-08	
Mangrove forests (2016) mangrove_forests_2016.tif	Forest change	Dataset	Legend	Not Standard	Detached	Offline	N.A.	2021-10-08	
Primary forests primary_forests.tif	Forest change	Dataset	Legend	Not Standard	Connected	Live	Available	2021-10-11	
Soil carbon density soil_carbon_density.tif	Forest change	Dataset	Legend	Not Standard	Connected	Live	Available	2021-10-07	
Tree biomass density tree_biomass_density.tif	Forest change - Tree cover change	Dataset	Legend	Not Standard	Connected	Offline	N.A.	2021-10-11	
WWF Priority Ecoregions wwf_priority_ecoregions.tif	Land cover	Dataset	Legend	Not Standard	Connected	Live	Available	2021-09-30	

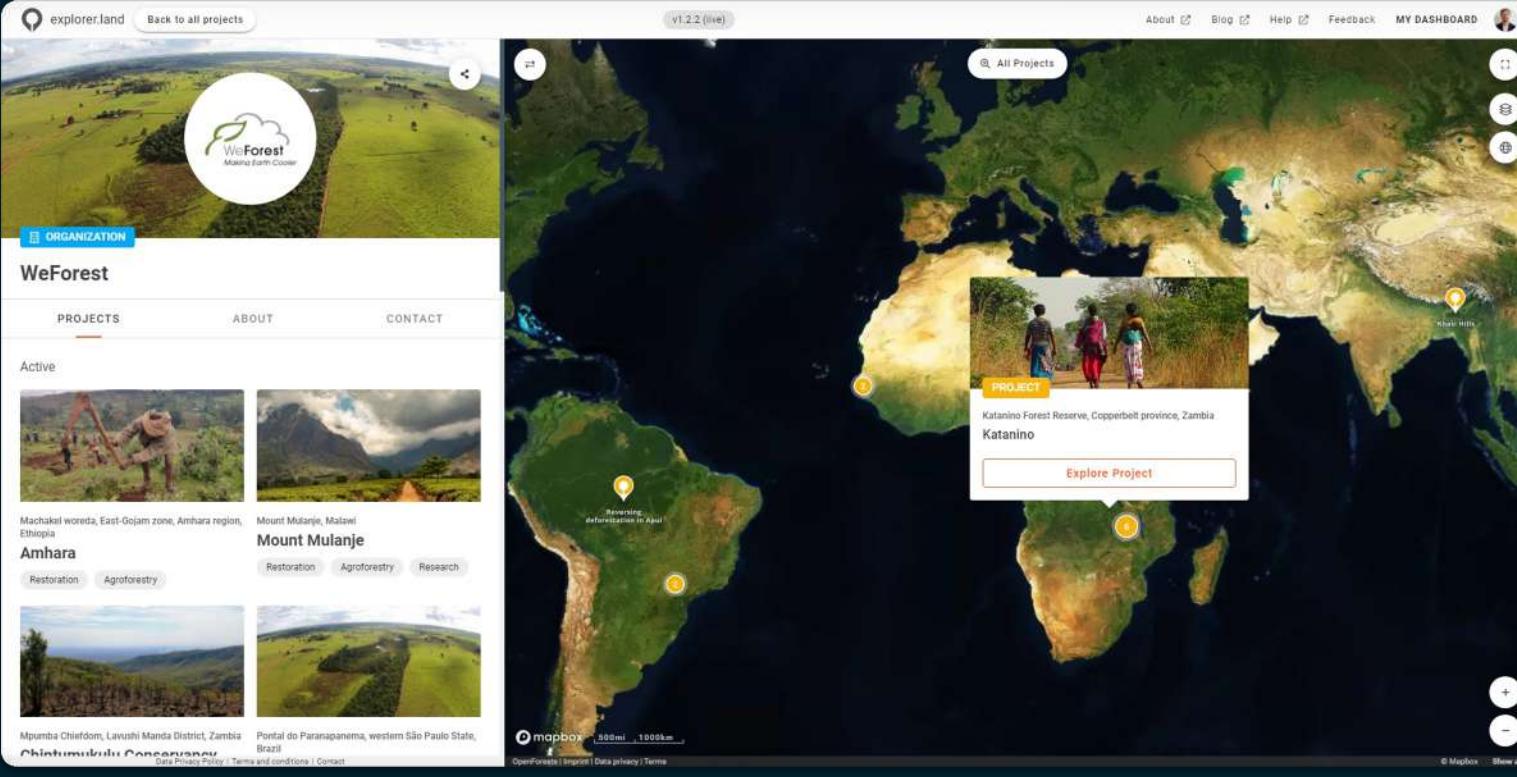
A modal window titled "Update Layer Category" is open over the list, showing the current category "Forest change" highlighted in red. Other options listed in the dropdown include Biodiversity, Climate, Climate - Carbon density, Forest change, Forest change - Tree cover change, and Land cover.

# EXAMPLES

## Organization

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[explorer.land \(weforest.org\)](https://explorer.land/weforest.org)



The screenshot displays the explorer.land interface. On the left, a sidebar for the 'WeForest' organization shows active projects: 'Machakel woreda, East-Gojam zone, Amhara region, Ethiopia' (Amhara), 'Mount Mulanje, Malawi' (Mount Mulanje), and 'Mpumba Chiredzi, Luvusha Manda District, Zambia'. Each project has a thumbnail image and a brief description. On the right, a world map highlights various forest restoration projects with yellow location markers. A callout box on the map details the 'Katanino Forest Reserve, Copperbelt province, Zambia' project, which is described as 'Reversing deforestation in Apui'. The map includes a scale bar (0-500mi / 0-1000km) and navigation controls.

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# EXAMPLE OF A TRANSPARENT PROJECT



Photo by Fairventures Worldwide



# Project location



500 km

Google

Activate Windows  
Go to Settings to activate Windows.

Created by OpenForests

Bilder © 2018 NASA, TerraMetrics | Nutzungsbedingungen



## Geography

- South-East-Asia
- Borneo
- Zentral-Kalimantan
- Project area

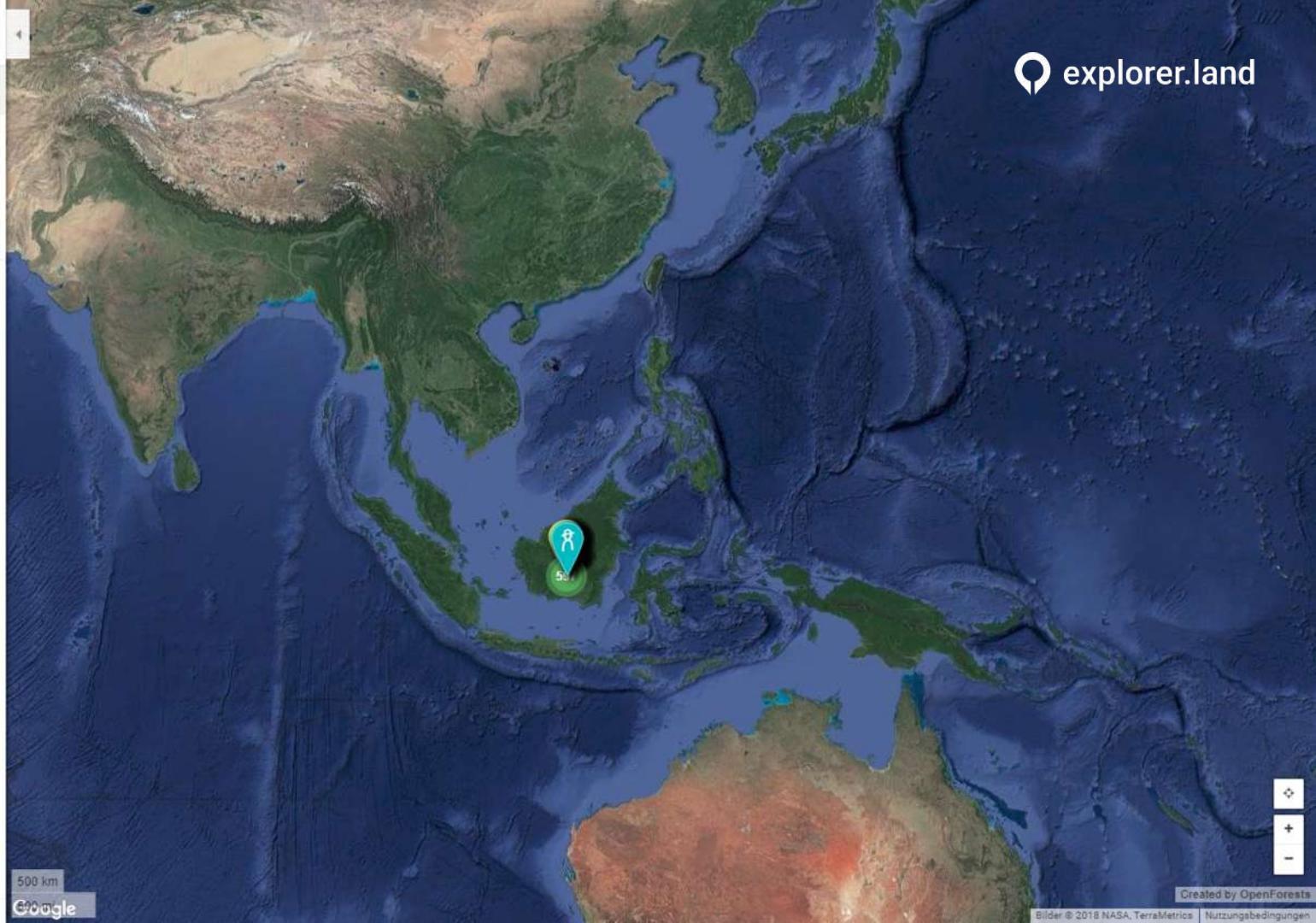
## Panorama

## Hot Spots

## Supporter

## Featured Smallholders

## HKM Areas





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- South-East-Asia
- Borneo
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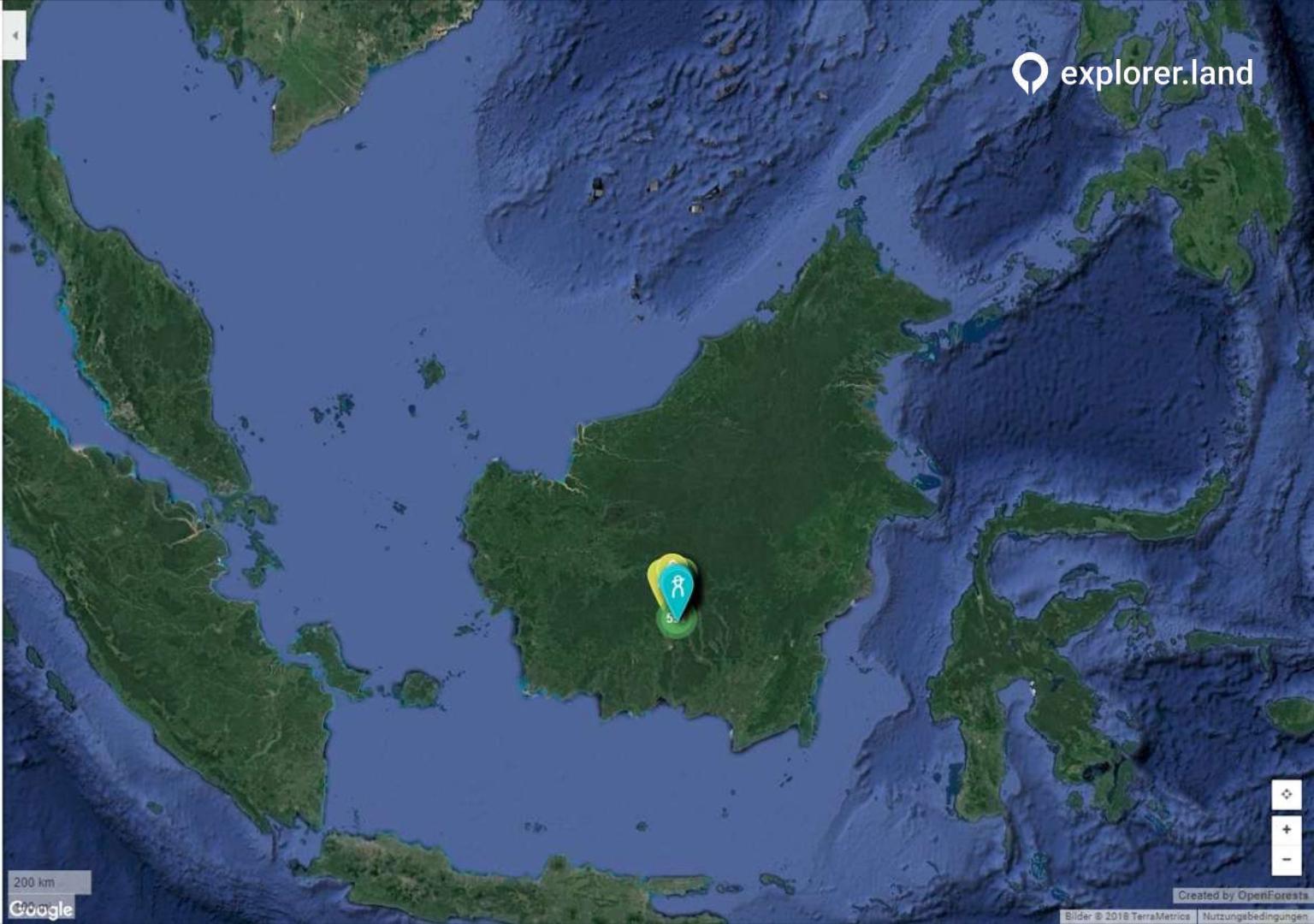
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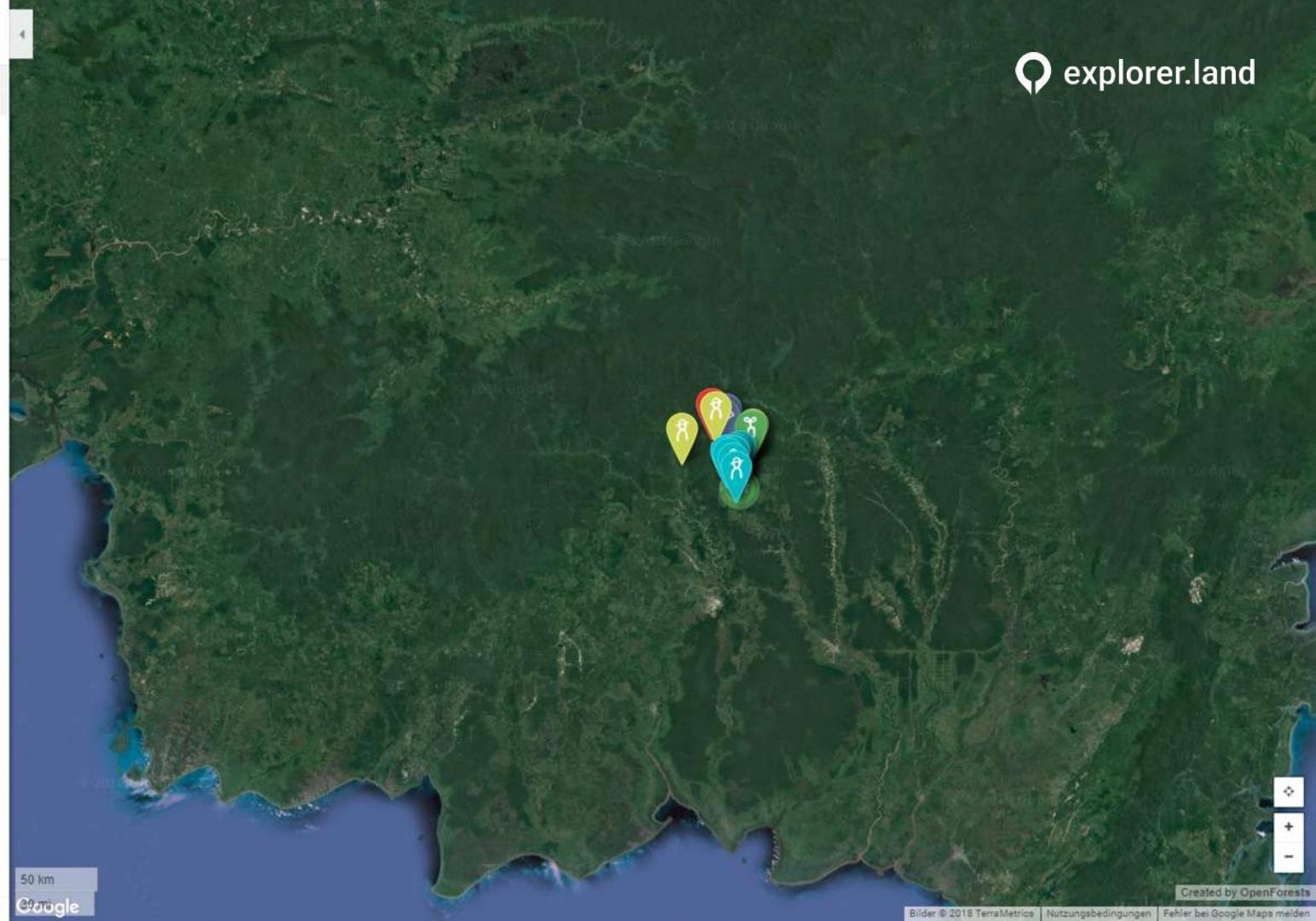


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50 km

Google



Geography



South-East-Asia



Borneo



Zentral-Kalimantan



Project area



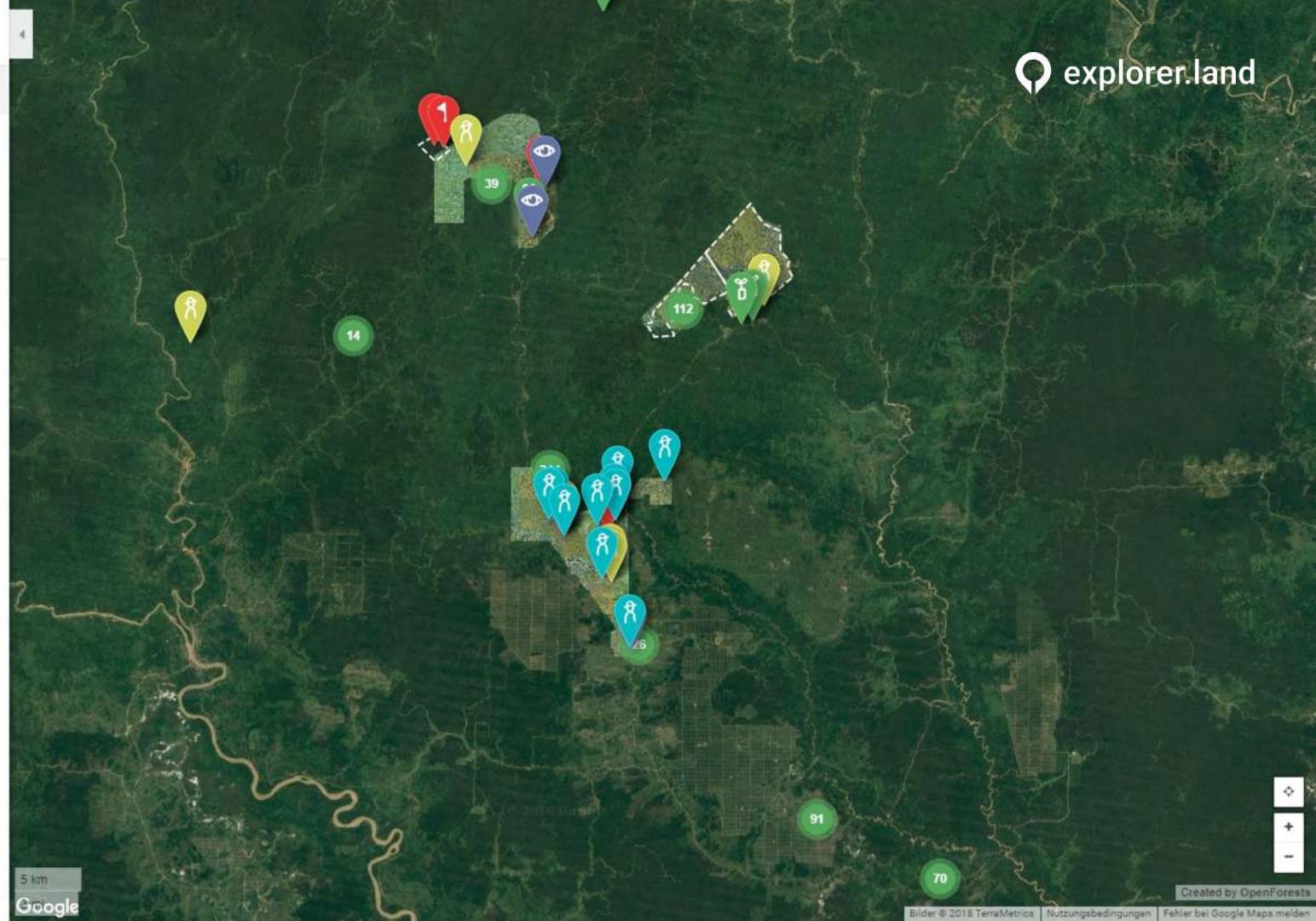
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## Basemap



© 2013 Pearson Education, Inc.

© Manbox Satellite

Mapbox Terrain

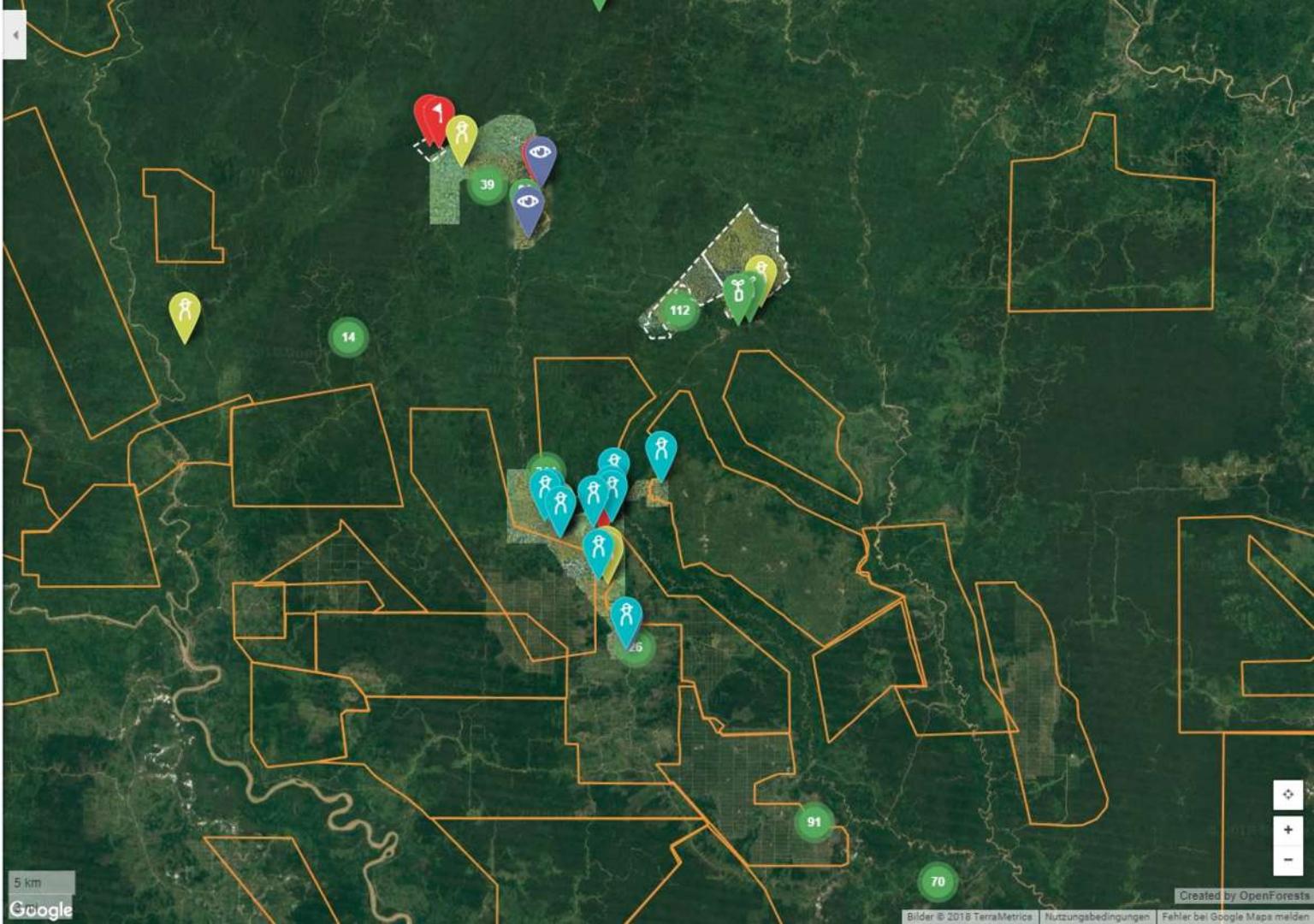
Mapbox Outdoor

## Layer

- Drone Orthofotos 2016
  - Drone Orthofotos 2017
  - Satellite image 2000
  - Satellite image 2015
  - Palm Oil concessions
  - Logging Concessions
  - Protection Area Tehang
  - HKM Kadishut Tusang Raya
  - HKM Kadishut Mangkukwuk
  - Parcell boundaries

## Marker

- Nurseries
  - Hot Spots
  - Panorama
  - 1mTrees reforestation fields
  - Smallholders with supporters
  - 1mTrees exemplary farmers
  - 1mTrees exemplary farmers



Data Privacy | Imprint - Disclaimer



Created by OpenForests

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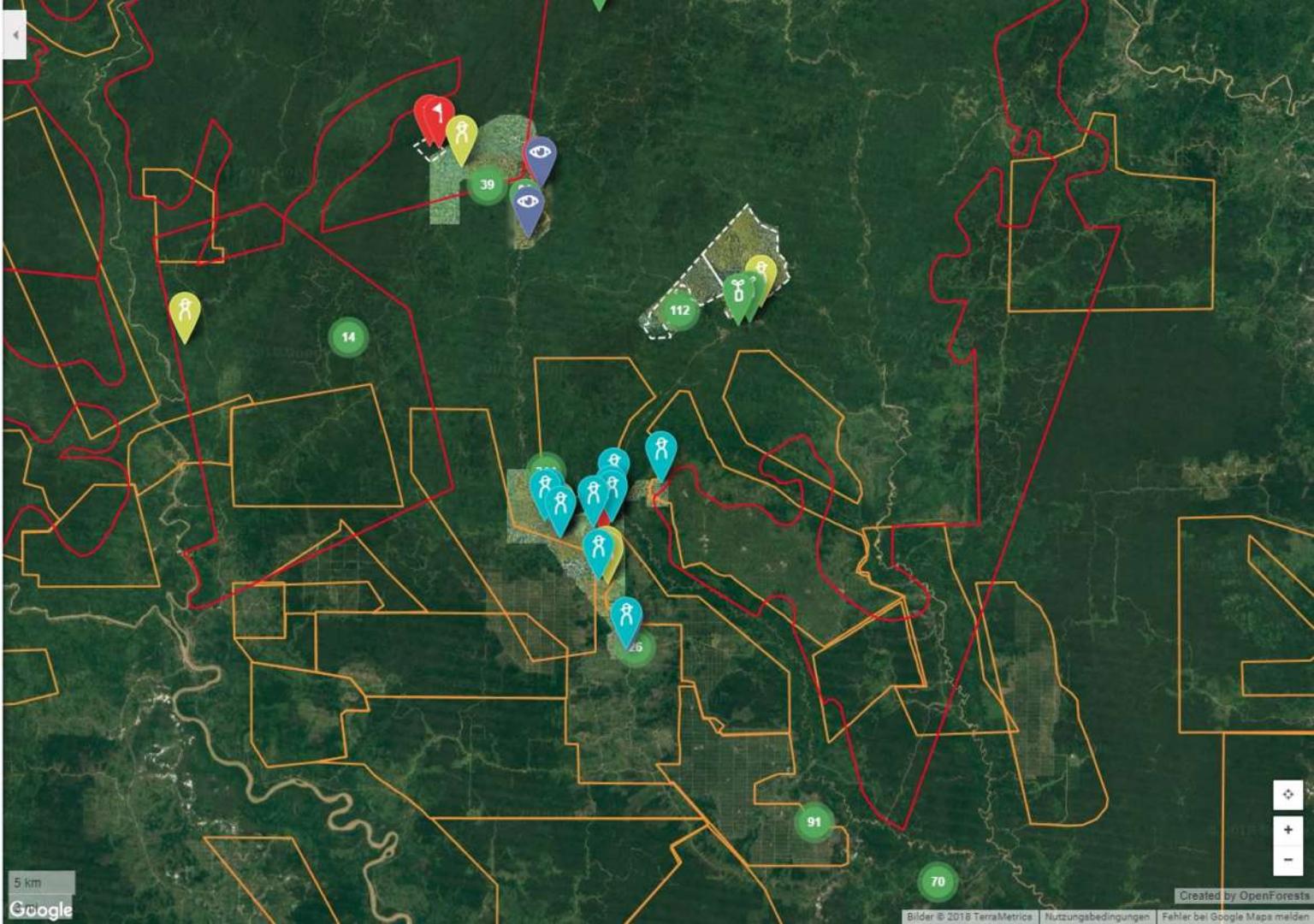
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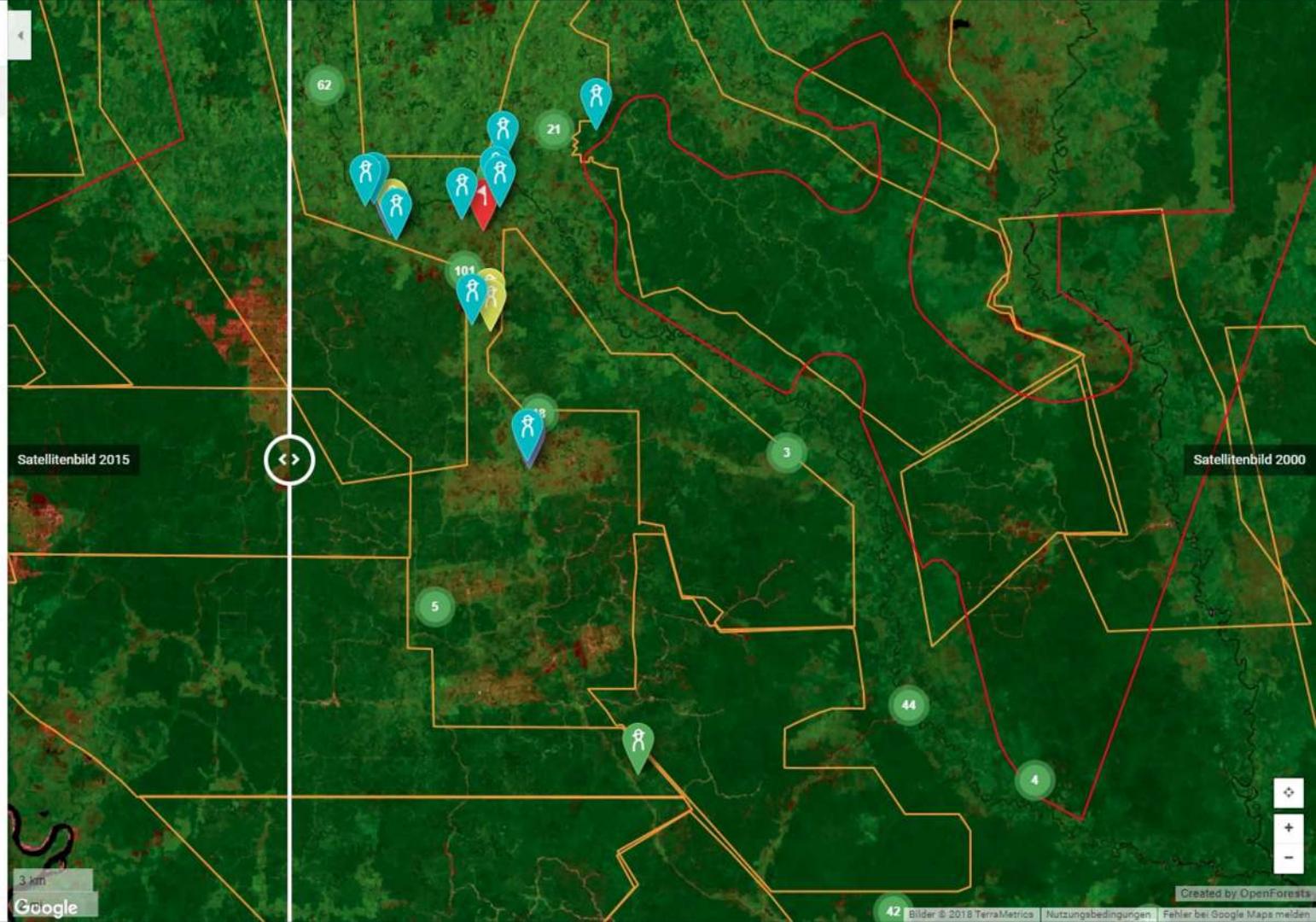
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3 km

Google



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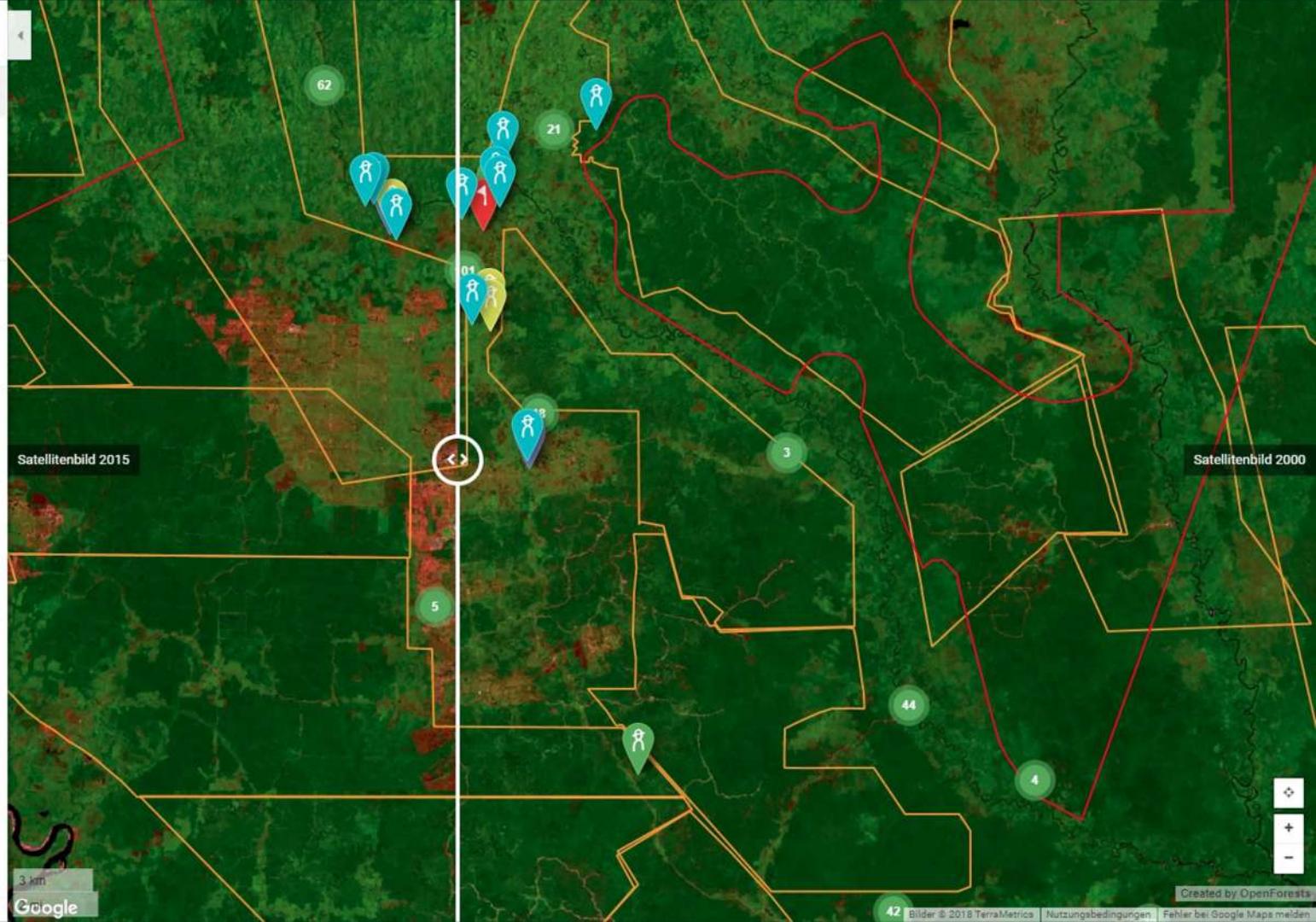
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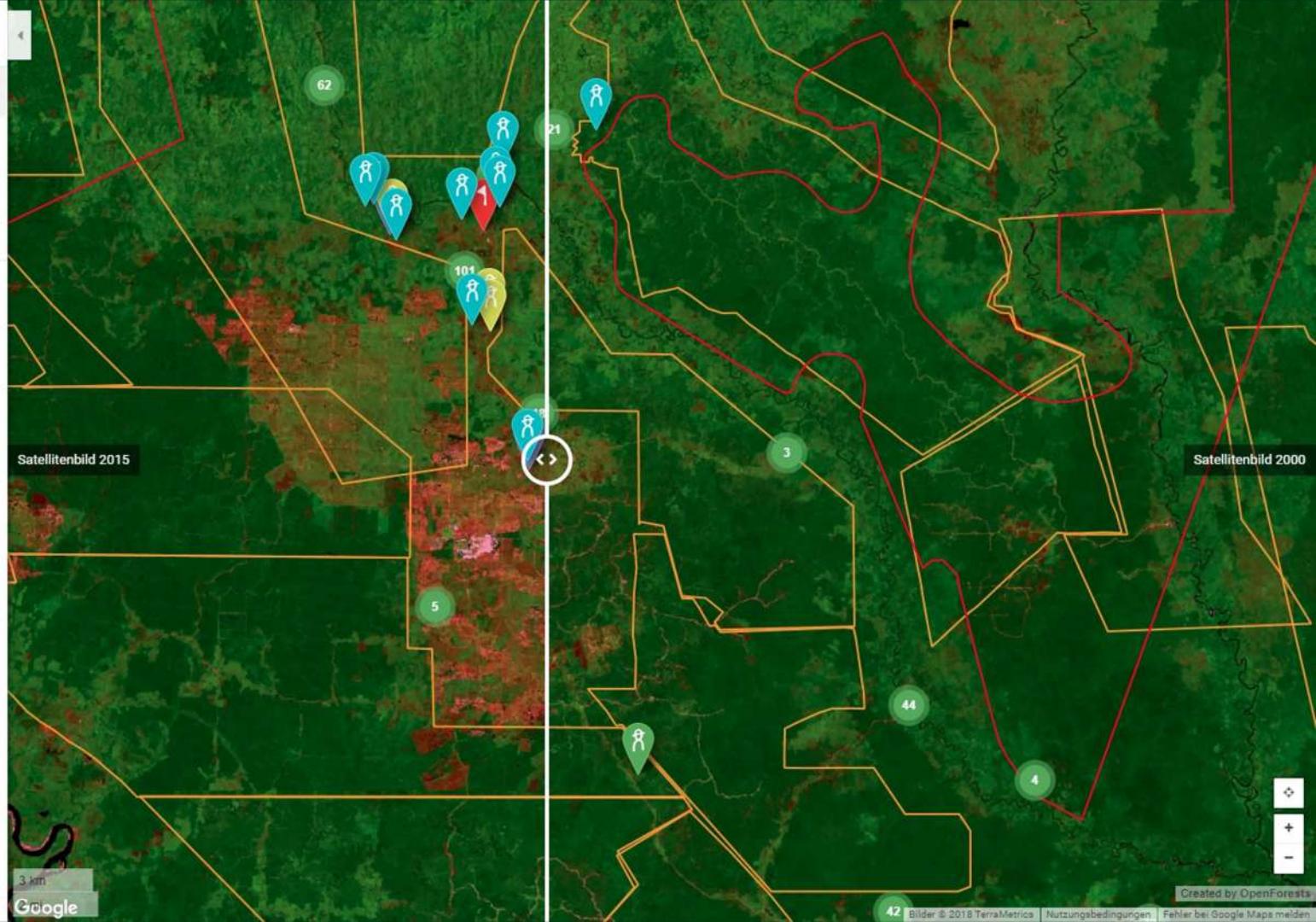
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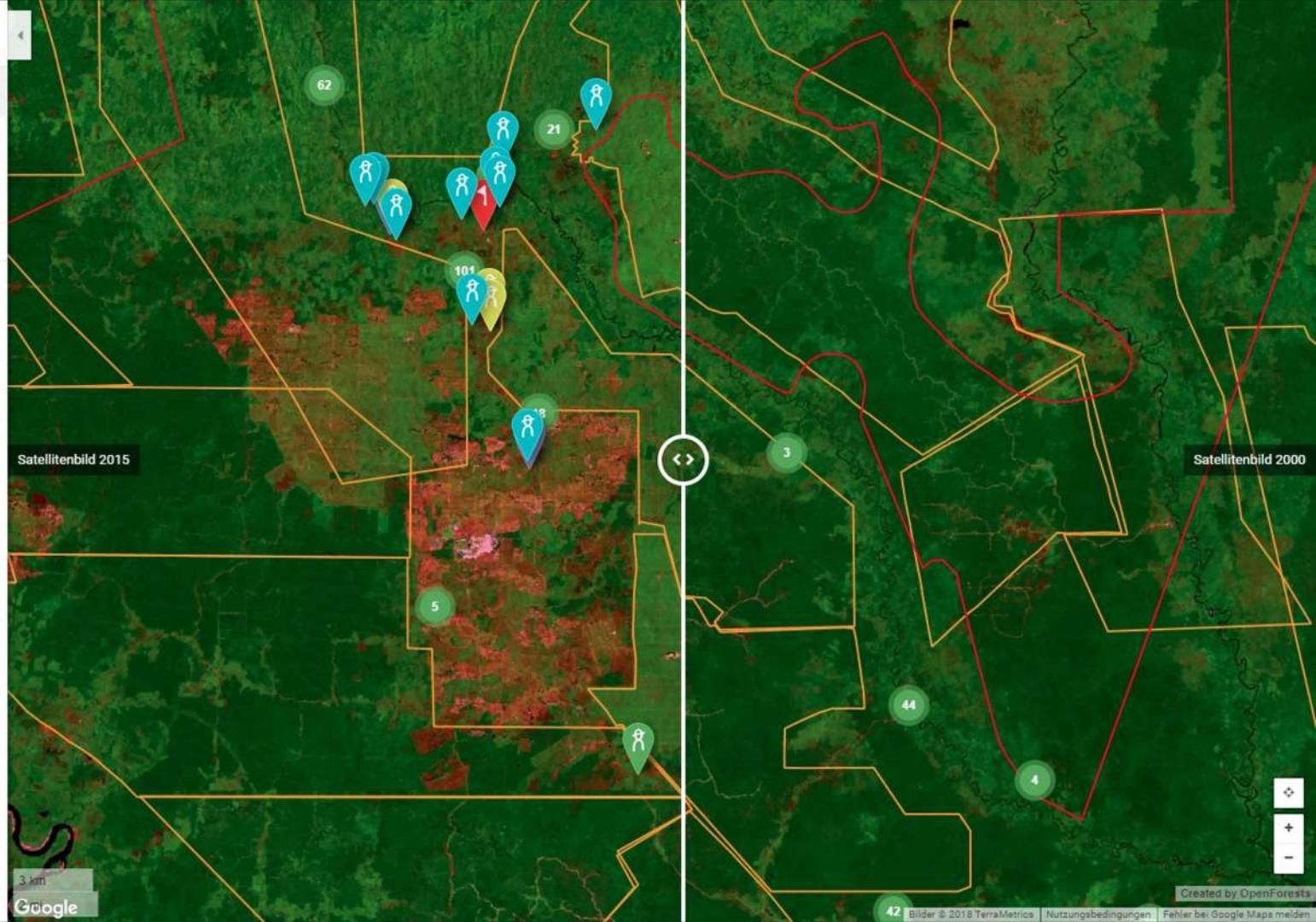
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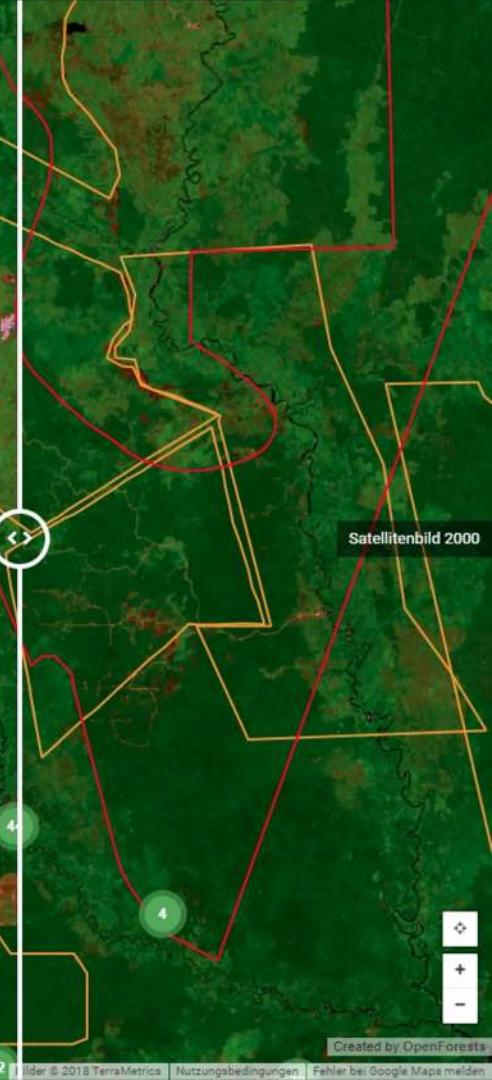
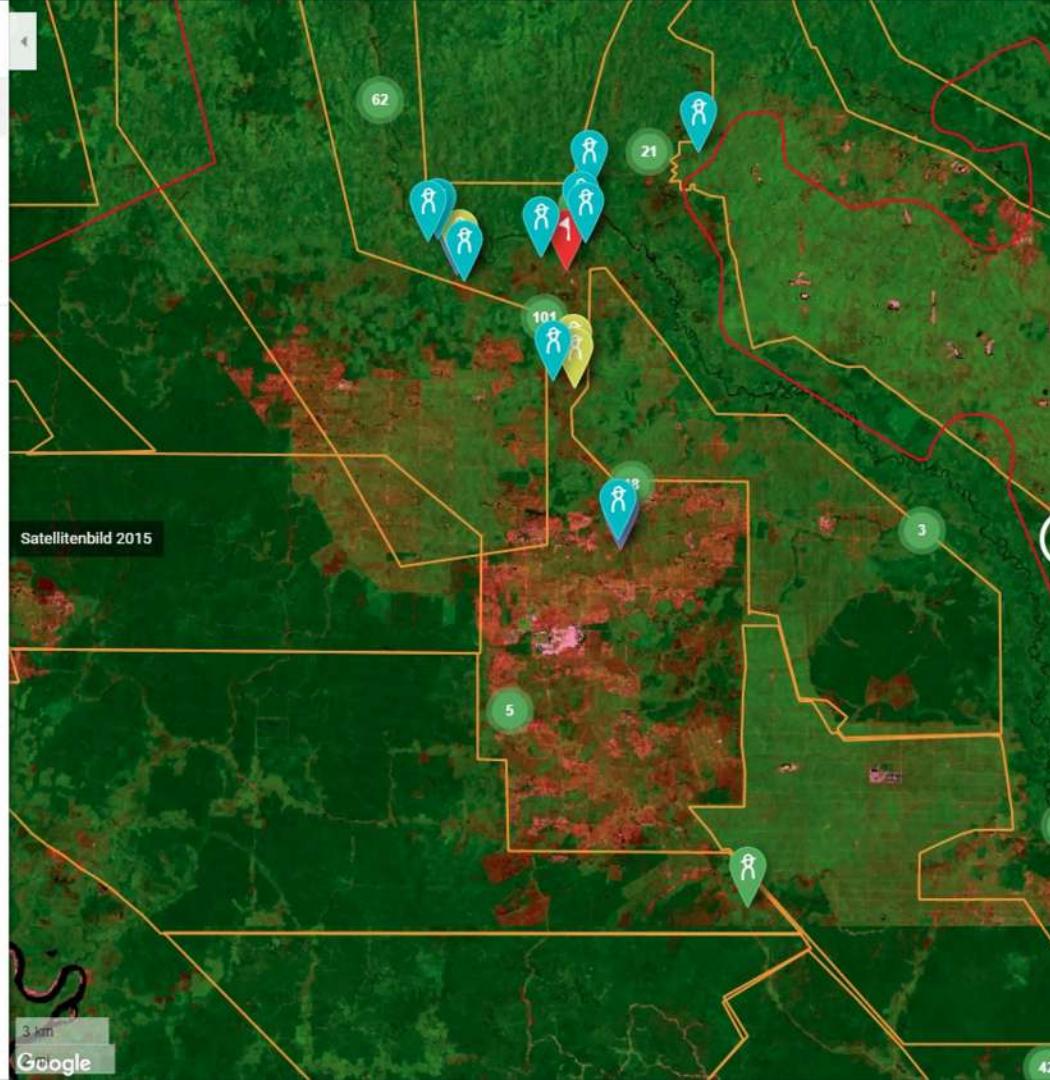
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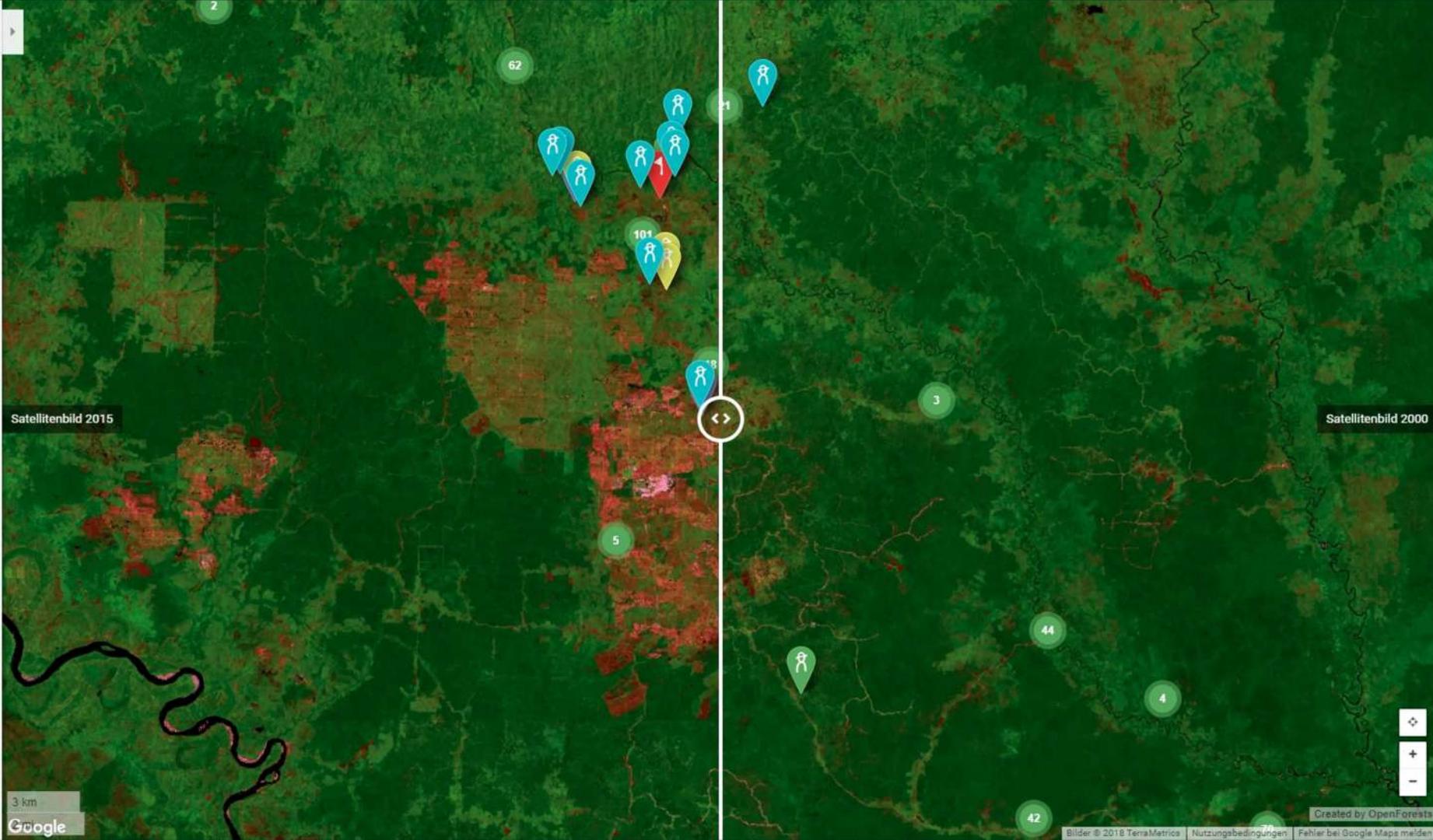
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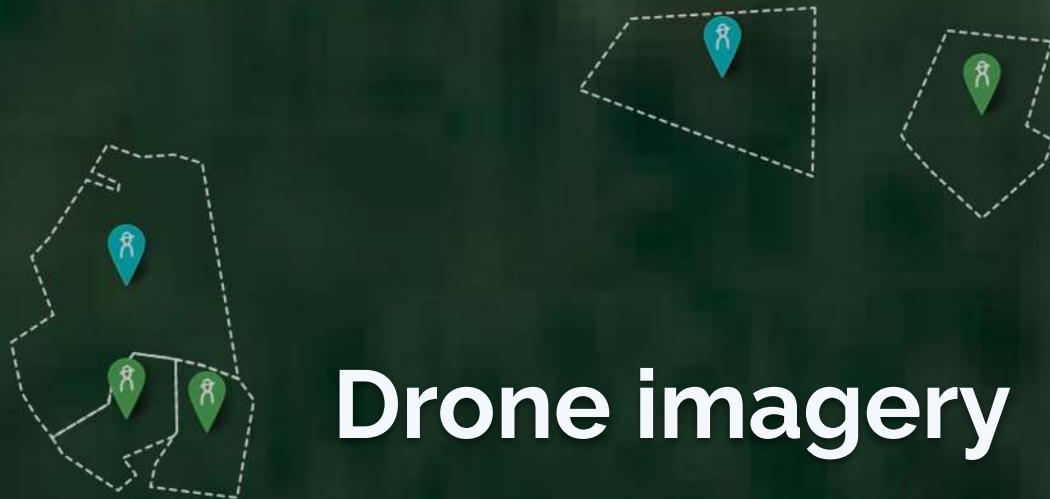
Google

# Informal gold mining









# Drone imagery



20 m

Google



Created by OpenForests

Bilder © 2018 DigitalGlobe

Nutzungsbedingungen

Fehler bei Google Maps melden

Basemap

- Google Satellite
- Mapbox Satellite
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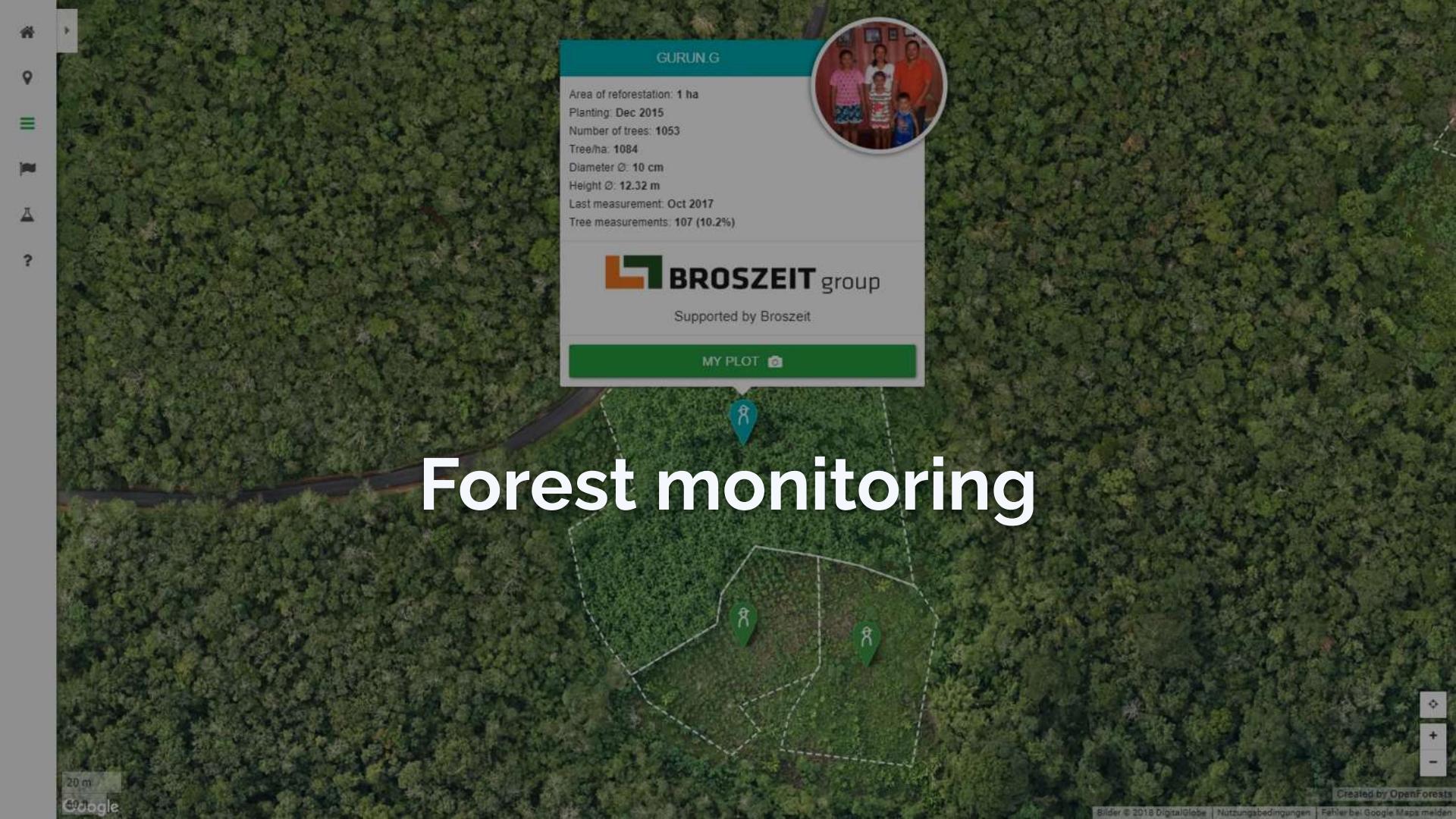
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20 m

Google



GURUN.G

Area of reforestation: 1 ha

Planting: Dec 2015

Number of trees: 1053

Tree/ha: 1084

Diameter Ø: 10 cm

Height Ø: 12.32 m

Last measurement: Oct 2017

Tree measurements: 107 (10.2%)



Supported by Broszeit

MY PLOT 

# Forest monitoring

GURUN.G

Areas of reforestation: 1 ha

Planting: Dec 2015

Tree/ha: 1084

Diameter : 10 cm

Height: 12.32 m

Last measurement: Oct 2017

Tree measurements: 107 (10,2%)



Supported by Broszeit

MY PLOT 





# Growing number of farmers



# CONTACT

Thank you!



[alexander.watson@openforests.com](mailto:alexander.watson@openforests.com)

[explorer.land](https://explorer.land)

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