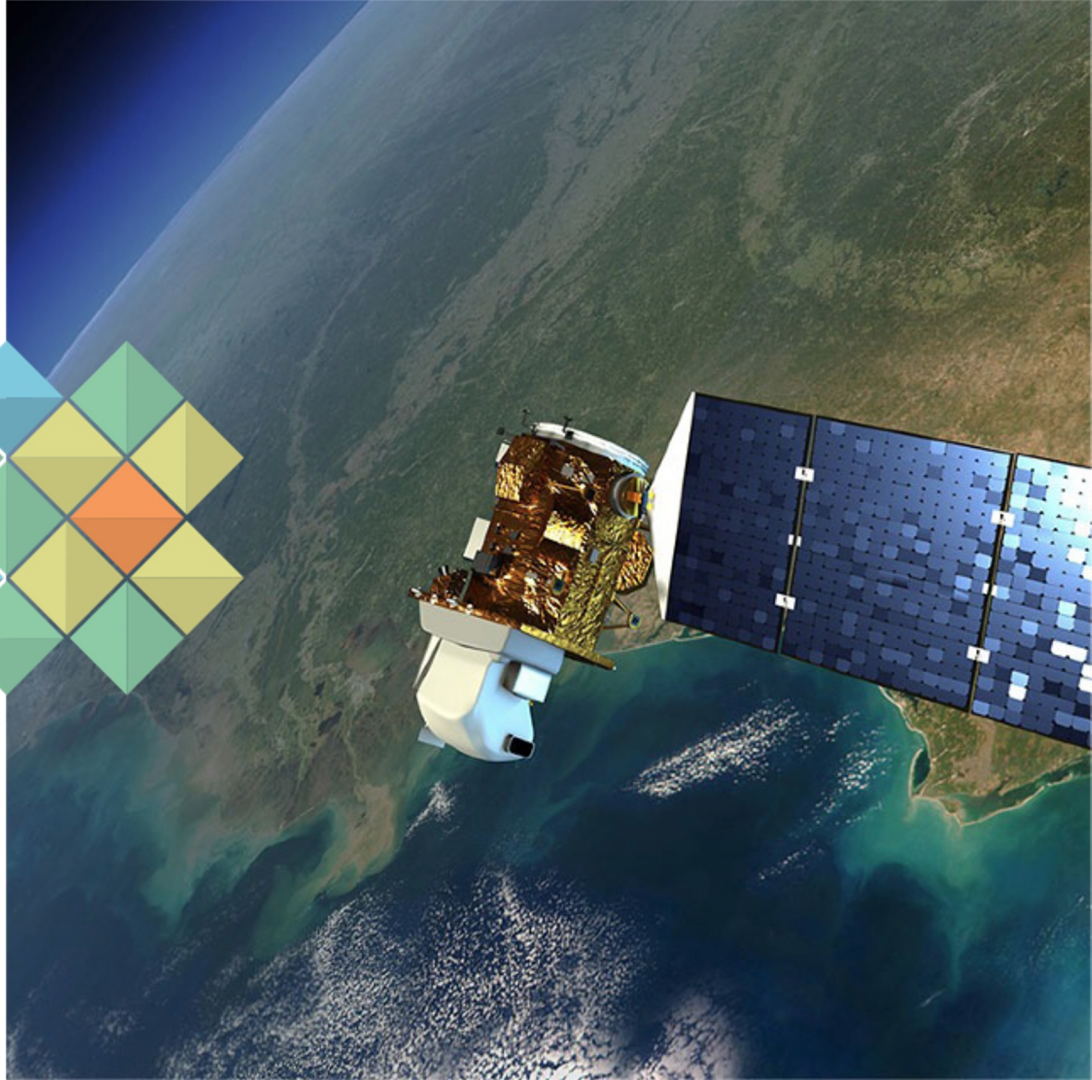


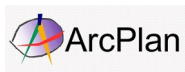
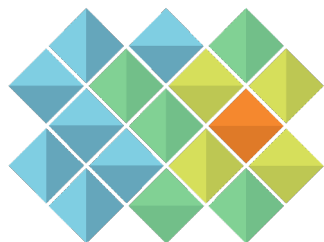
MAPBIOMAS

Collaborative mapping of
land cover and land use
change in Brazil

mapbiomas.org



CO-CREATORS



INITIATIVE



INSTITUCIONAL SUPPORT



TECHNICAL PARTNERS



FINANCING



How we are organized



		Cross Cutting Themes				
Native Vegetation	Amazon <i>(Imazon)</i>					
	Caatinga <i>(UEFS, Geodatin & APNE)</i>					
	Cerrado <i>(IPAM)</i>	Pasture <i>(Lapig/UFG)</i>		Agriculture <i>(Agrosatélite)</i>	Coastal Zone and Mining <i>(ITV & Solved)</i>	Urban Areas <i>(USP, UFESCar, UFBA)</i>
	Atlantic Forest <i>(SOS Mata Atlântica & ArcPlan)</i>					
	Pampa <i>(UFRGS & Geokarten)</i>					
	Pantanal <i>(SOS Pantanal & ArcPlan)</i>					

MAPBIOMAS Initiatives (since 2015)

Annual Products



MAPBIOMAS

[Collection 7.1]

RAD – Deforestation Annual Report



MAPBIOMAS

[FOGO]



MAPBIOMAS

[ÁGUA]

Monthly Products



MAPBIOMAS
ALERTA

MONITOR DA
FISCALIZAÇÃO



MAPBIOMAS
[FOGO]

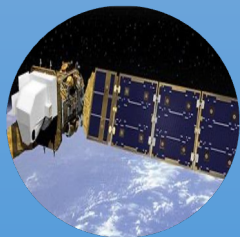
MONITOR do
FOGO



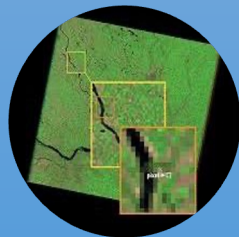
MAPBIOMAS
[ÁGUA]

MONITOR da
ÁGUA

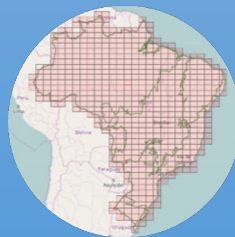
Main characteristics



Based on
Landsat images
(30 m
resolution)



Processing
pixel by pixel
(30 x 30 m)



Collaborative
network of
institutions



Machine
learning and
cloud based
processing
(GEE)

MAPBIOMAS NETWORK cover 14 countries

+280 people and +70 institutions

New collections: Peru and Bolivia



Brazil	Amazon	Chaco	Indonesia	Atlantic Forest	Pampa	Chile
COLLECTION 7.1	COLLECTION 4	COLLECTION 3	COLLECTION 2	COLLECTION 2	COLLECTION 2	
Coordination	Coordination	Coordination	Coordination	Coordination	Coordination	Coordination
Co-creators	Co-creators	Co-creators	Co-creators	Co-creators	Co-creators	Co-creators

THE MAPBIOMAS' MISSION

Build **local capacity** in each tropical country
to generate **land use and land cover** data based on **remote sensing**












Useful, updated, accurate and relevant to the local context

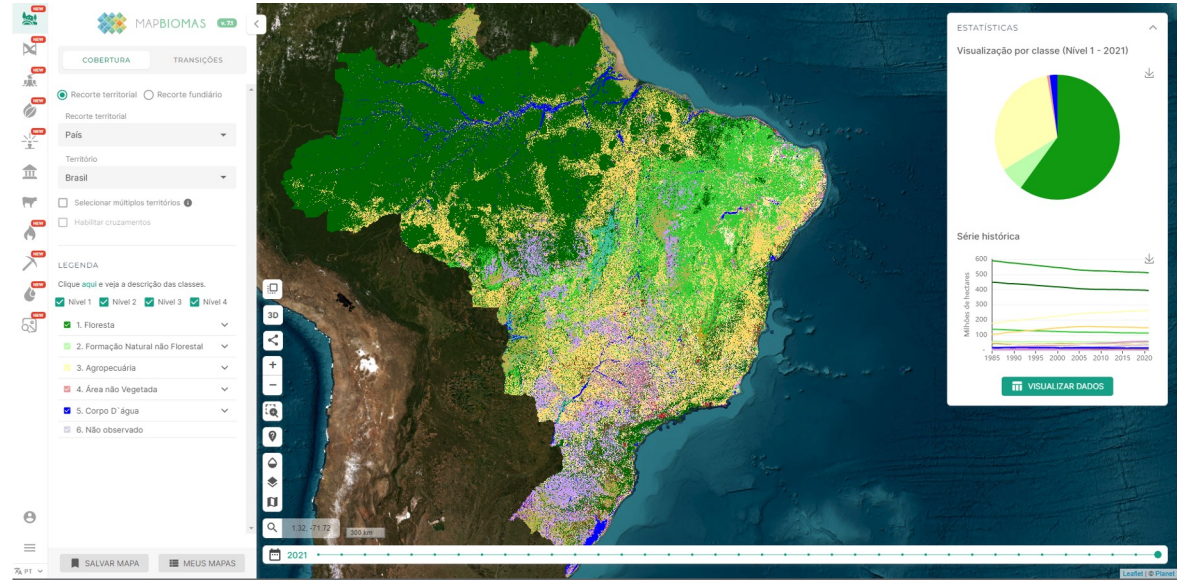
Used by **decision makers**

in public, private and civil society sectors

To foster **sustainable management of natural resources**
and **climate change** mitigation

MAPBIOMAS PLATFORM

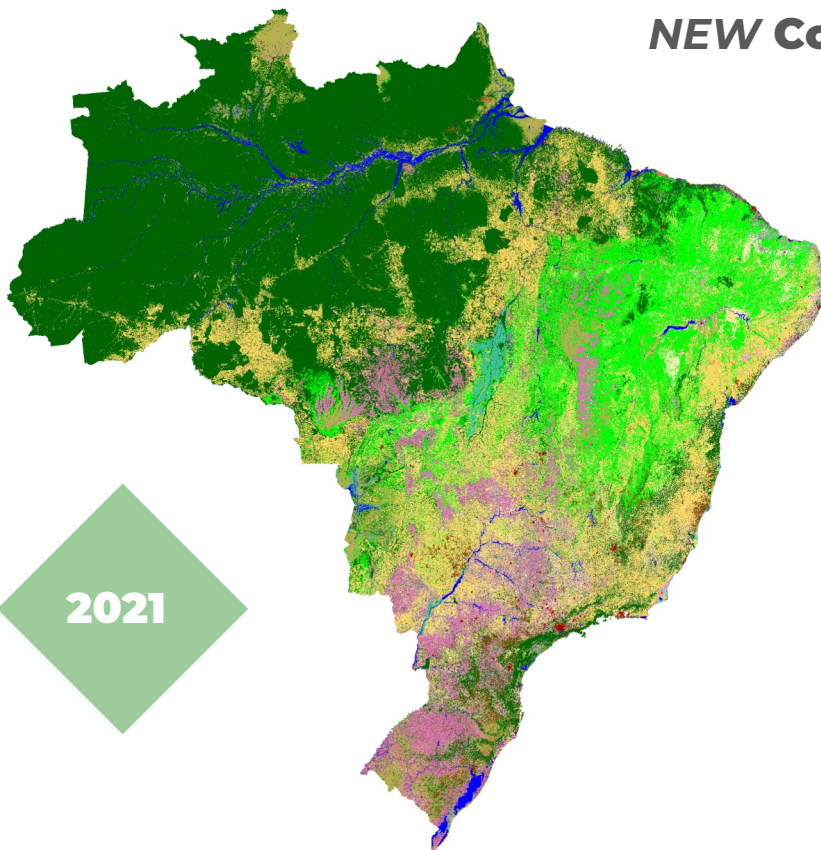
-  **NEW** Land cover, land use and transitions
-  **NEW** Temporal analysis
-  **NEW** Deforestation
-  **NEW** Secondary vegetation
-  **NEW** Irrigation
-  Infrastructure
-  Pasture quality
-  **NEW** Fire scars
-  **NEW** Mining
-  **NEW** Water surface
-  **NEW** Quality



<https://plataforma.brasil.mapbiomas.org/>



LAND COVER AND LAND USE IN BRAZIL - 1985-2021

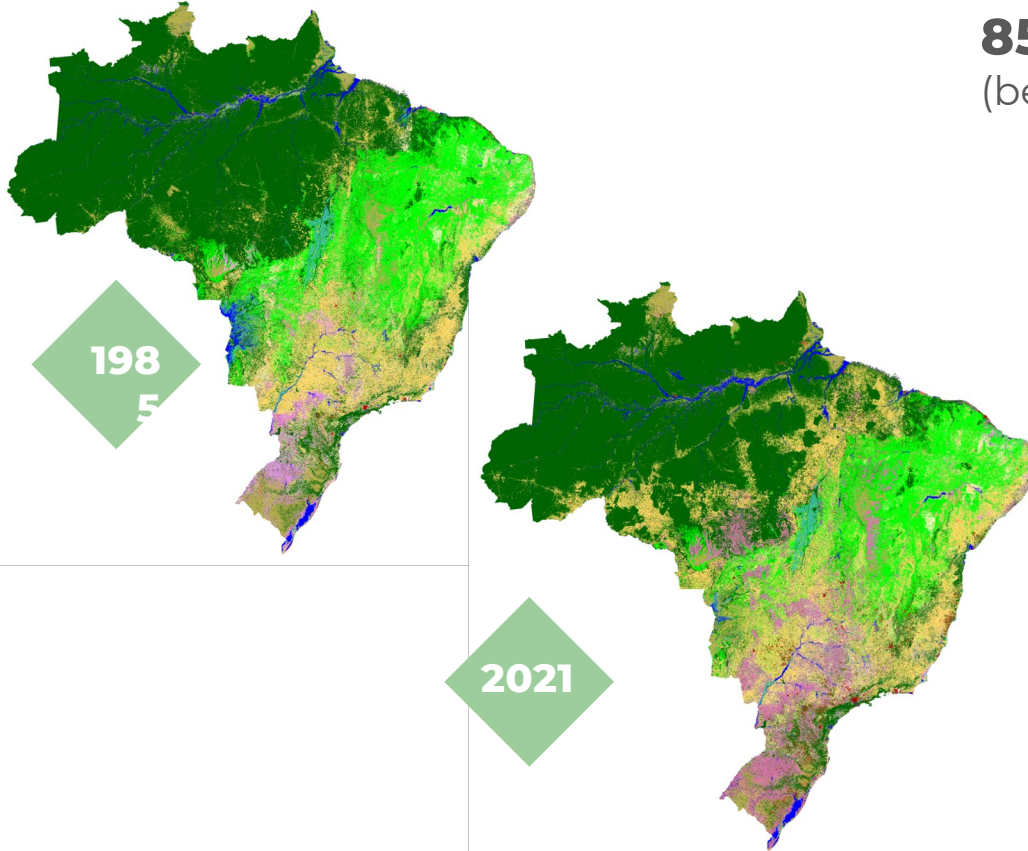


NEW Collection 7.1 27 classes

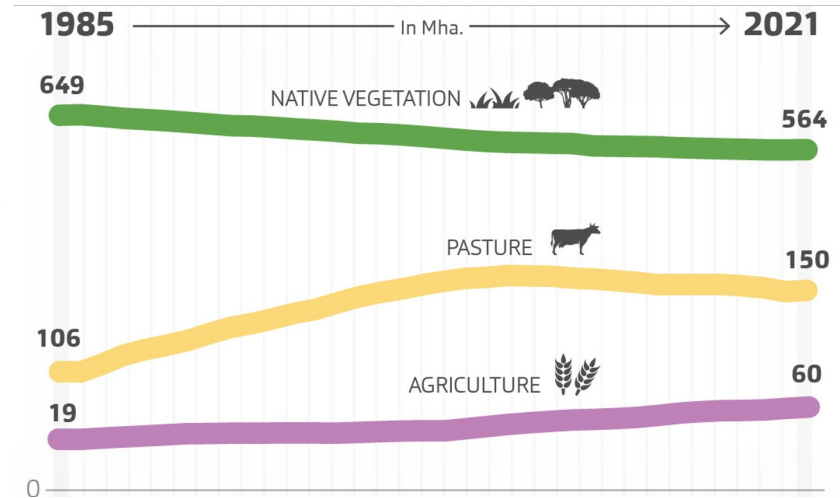
Class	Area (Mha)	%
1. Forest	510.47	59.92%
1.1. Forest Formation	394.10	46.26%
1.2. Savanna Formation	114.72	13.47%
1.3. Mangroves	1.01	0.12%
1.4. Wooded Sandbank Vegetation	0.64	0.08%
2. Non-Forest Natural Formation	53.66	6.30%
2.1. Grassland	41.85	4.91%
2.2. Wetland	10.67	1.25%
2.3. Rocky Outcrop	0.79	0.09%
2.4. Salt Flat	0.05	<0.01%
2.5. Herbaceous Sandbank Vegetation	0.27	0.03%
2.6. Other Non-Forest Formations	0.12	<0.01%
3. Farming	263.42	30.92%
3.1. Pasture	149.56	17.56%
3.2. Agriculture	60.45	7.10%
3.2.1. Temporary Crop	58.19	6.83%
3.2.1.1. Soybean	38.03	4.46%
3.2.1.2. Sugar cane	8.67	1.02%
3.2.1.3. Rice	1.45	0.17%
3.2.1.4. Cotton (beta version)	0.22	0.03%
3.2.1.5. Other Temporary Crops	9.81	1.15%
3.2.2. Perennial Crop	2.25	0.26%
3.2.2.1. Coffee	1.22	0.14%
3.2.2.2. Citrus	0.37	0.04%
3.2.1.3. Other Perennial Crops	0,66	0,08%
3.3. Forest Plantation (monocultures)	8.58	1.01%
3.4. Mosaic of Uses	44.83	5.27%
4. Non Vegetated Area	6.29	0,74%
4.1. Beach, Dune and Sand Spot	0.39	0,05%
4.2. Urban Areas	3.70	0,43%
4.3. Mining	0.37	0,04%
4.4. Other Non Vegetated Areas	1.84	0,22%
5. Water	16.81	1.98%
5.1. River, Lake and Ocean	16.75	1.97%
5.2. Aquaculture	0.05	<0.01%
6. Not Observed	<0.01	<0.01%



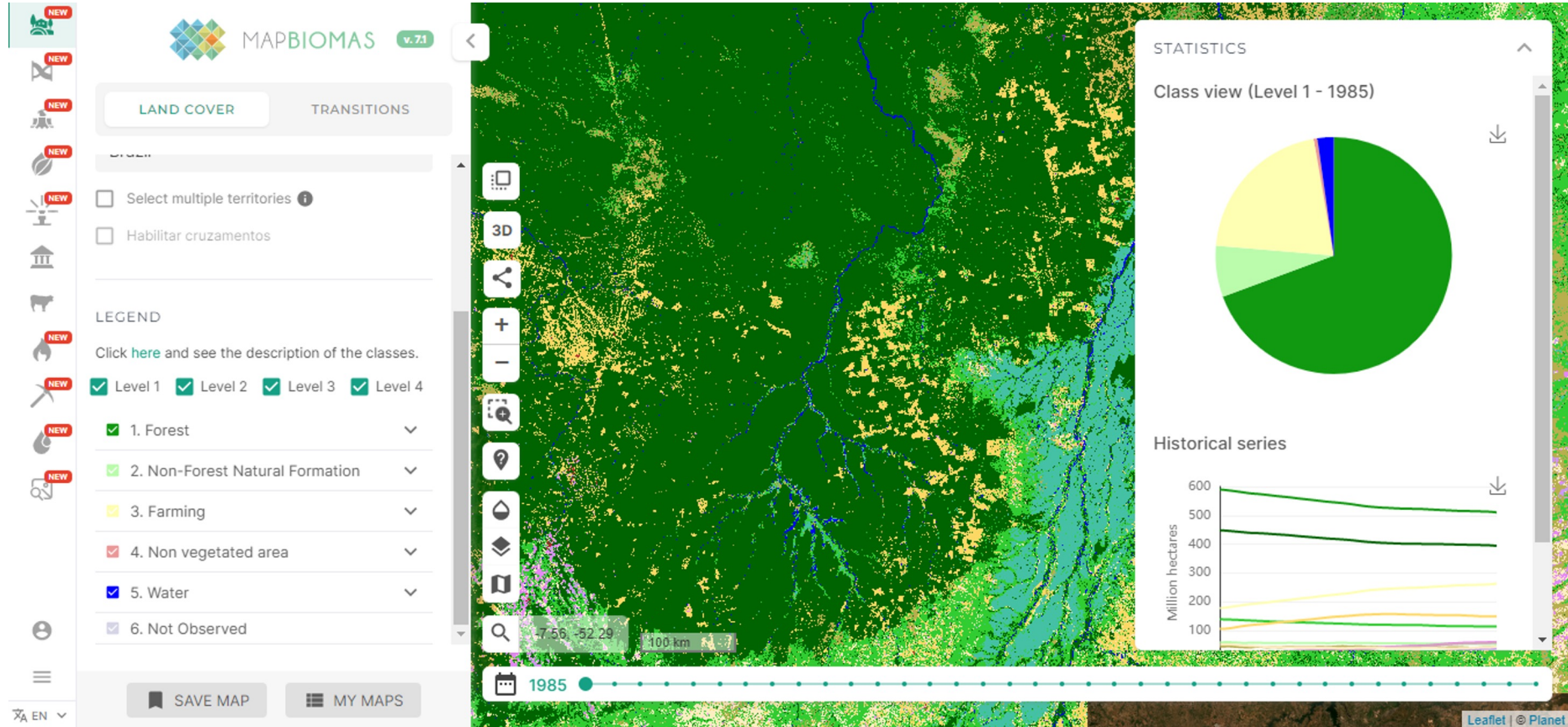
LAND COVER AND LAND USE IN BRAZIL - 1985-2021



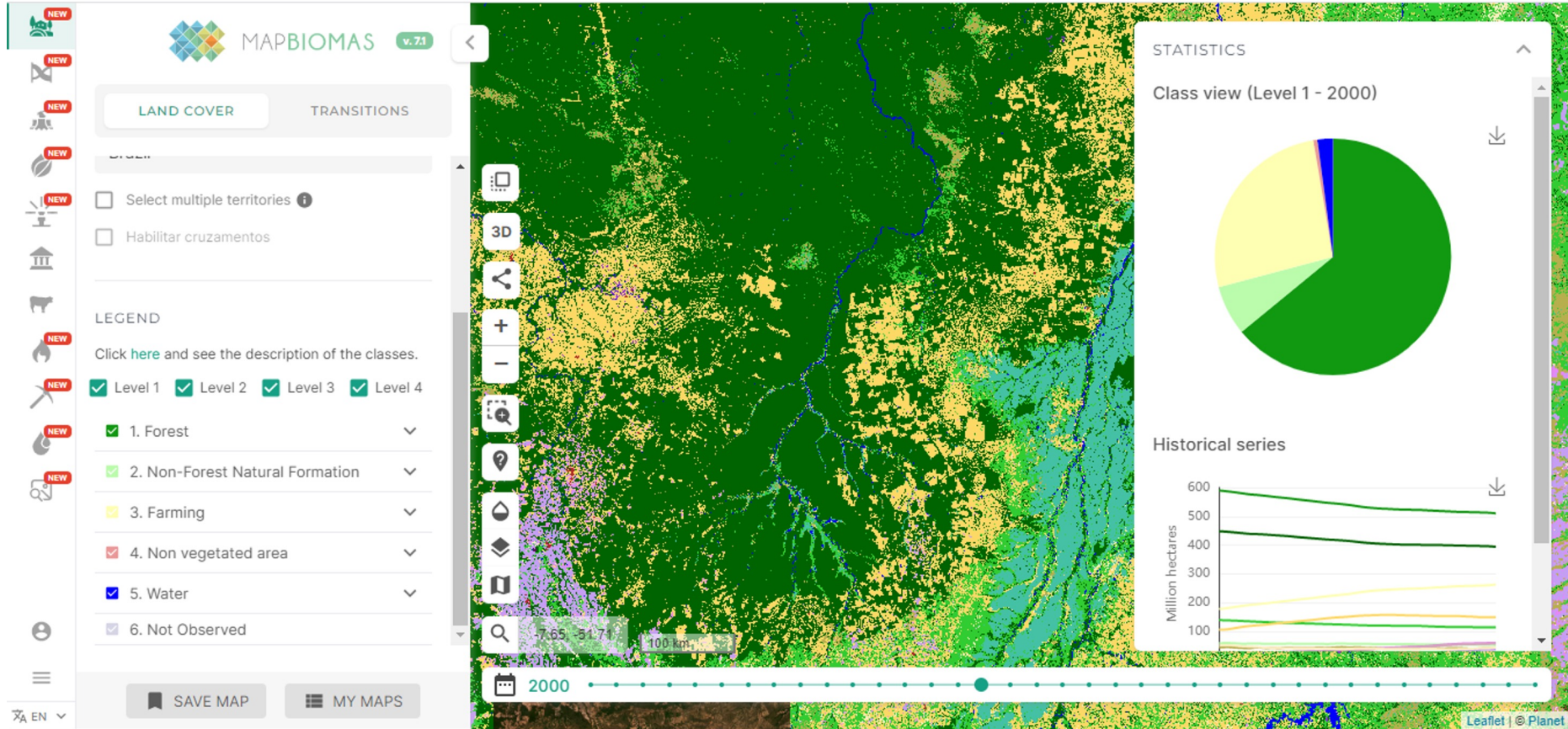
85.3 Mha native vegetation loss
(between 1985 and 2021)



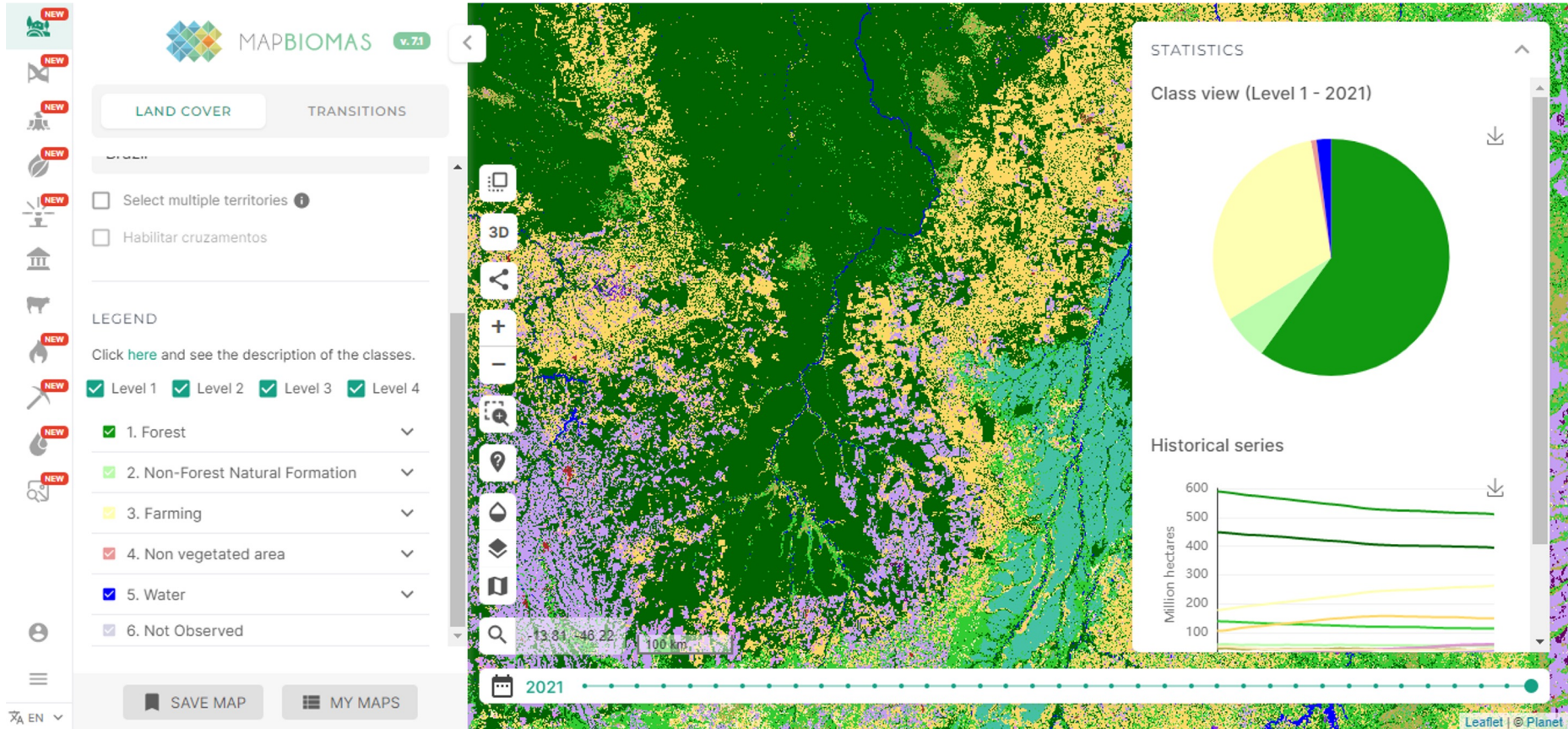
Land cover and land use (1985-2021)



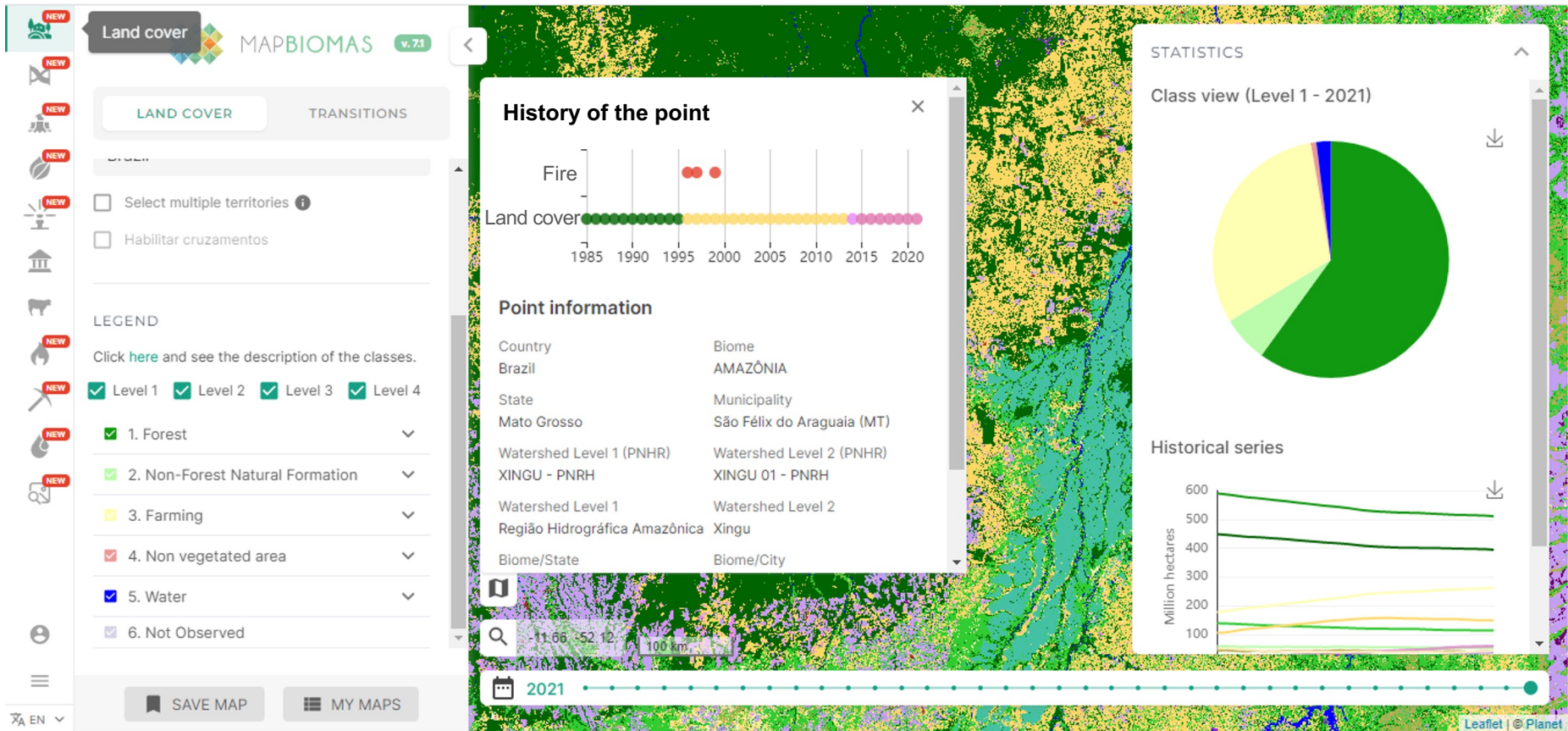
Land cover and land use (1985-2021)



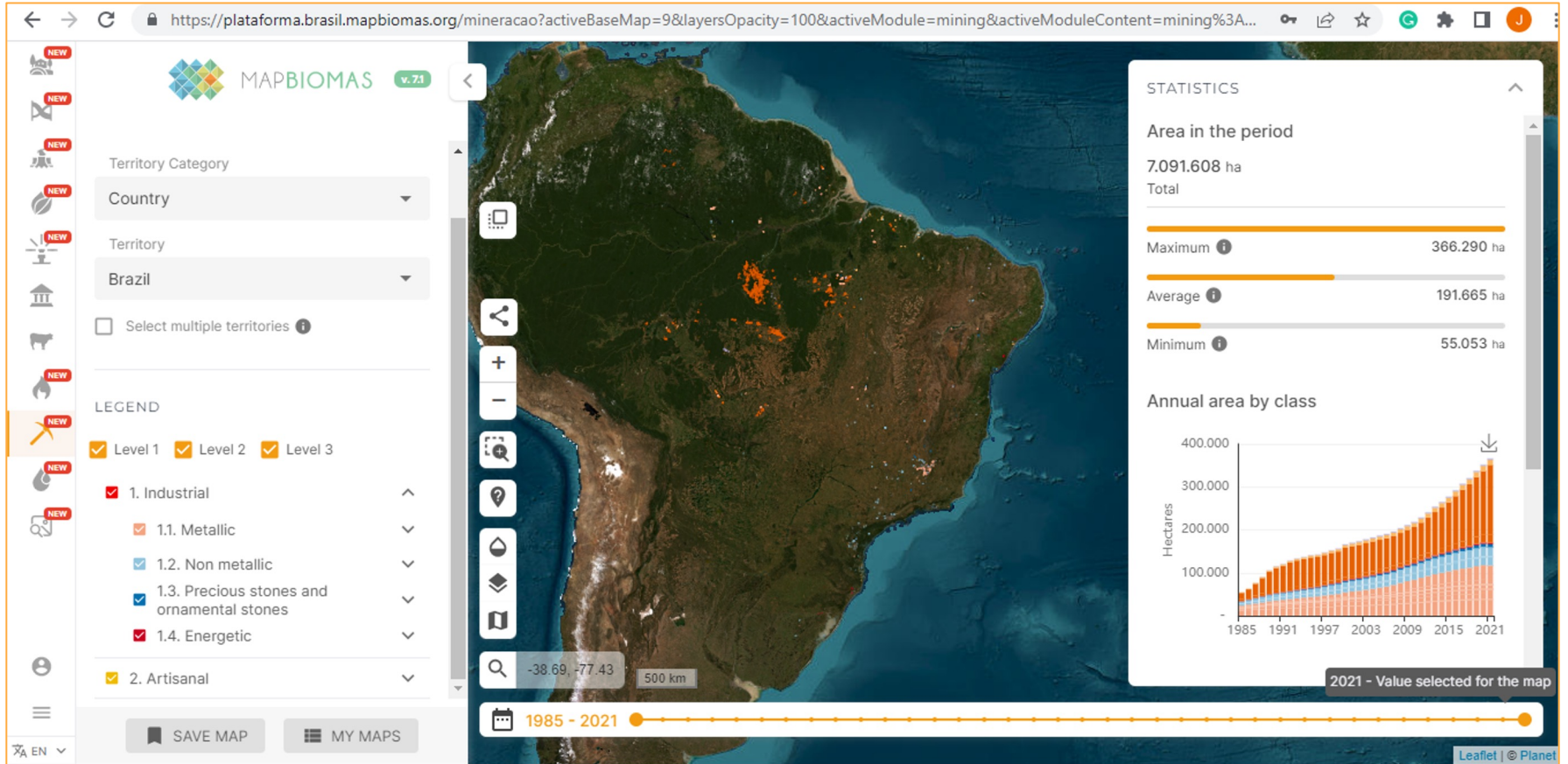
Land cover and land use (1985-2021)



History of the point



MINING



Garimpo/Artisanal mining

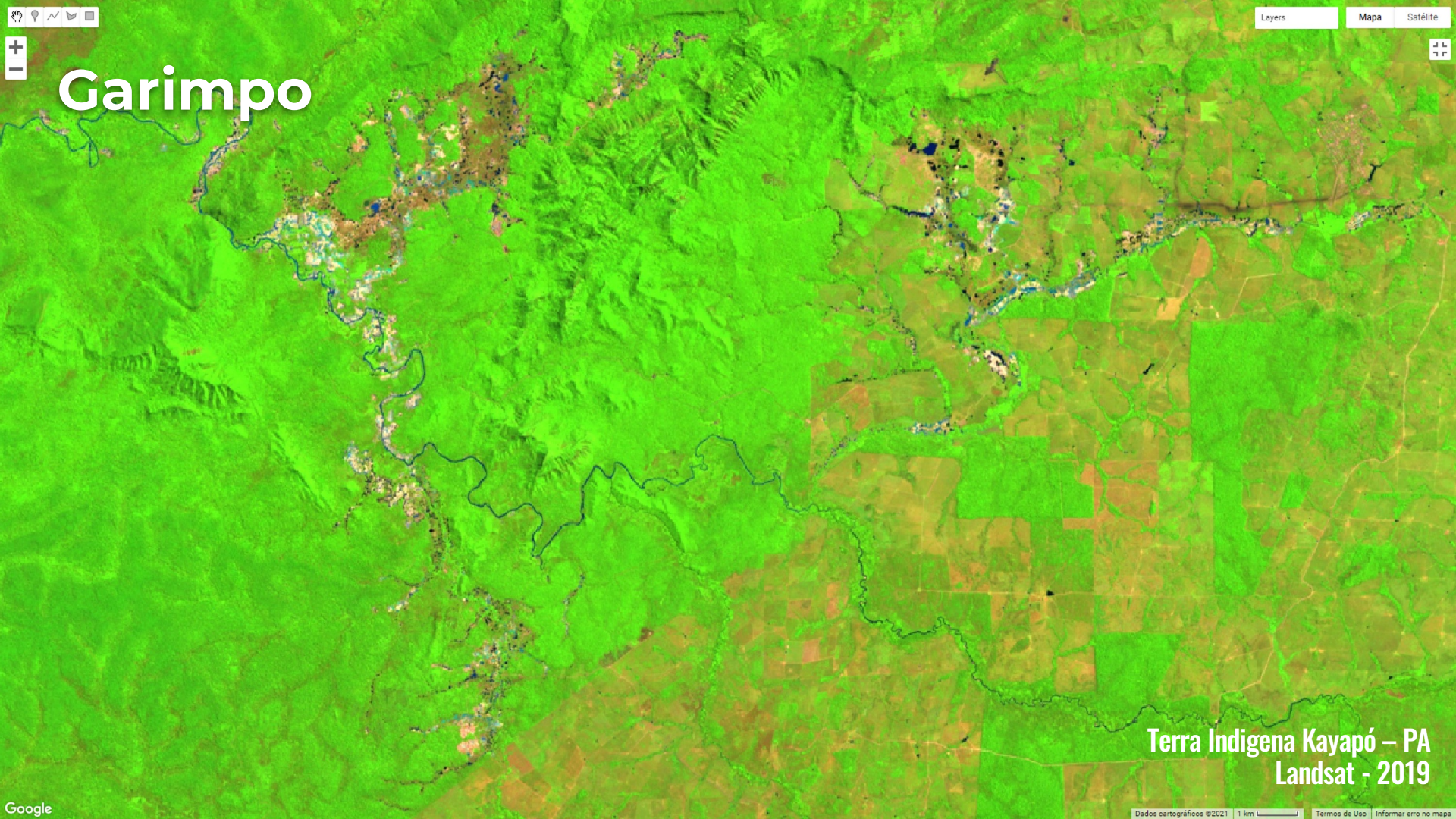
An aerial photograph showing a large-scale deforestation and mining operation in a tropical forest. The central area is a cleared, terraced hillside with exposed brown earth and yellowish sand, indicating active mining. The surrounding forest is dense and green, with some trees showing signs of being cut down. The overall scene depicts the impact of artisanal mining on the environment.

Kayapó - PA

Foto de Felipe Werneck - IBAMA

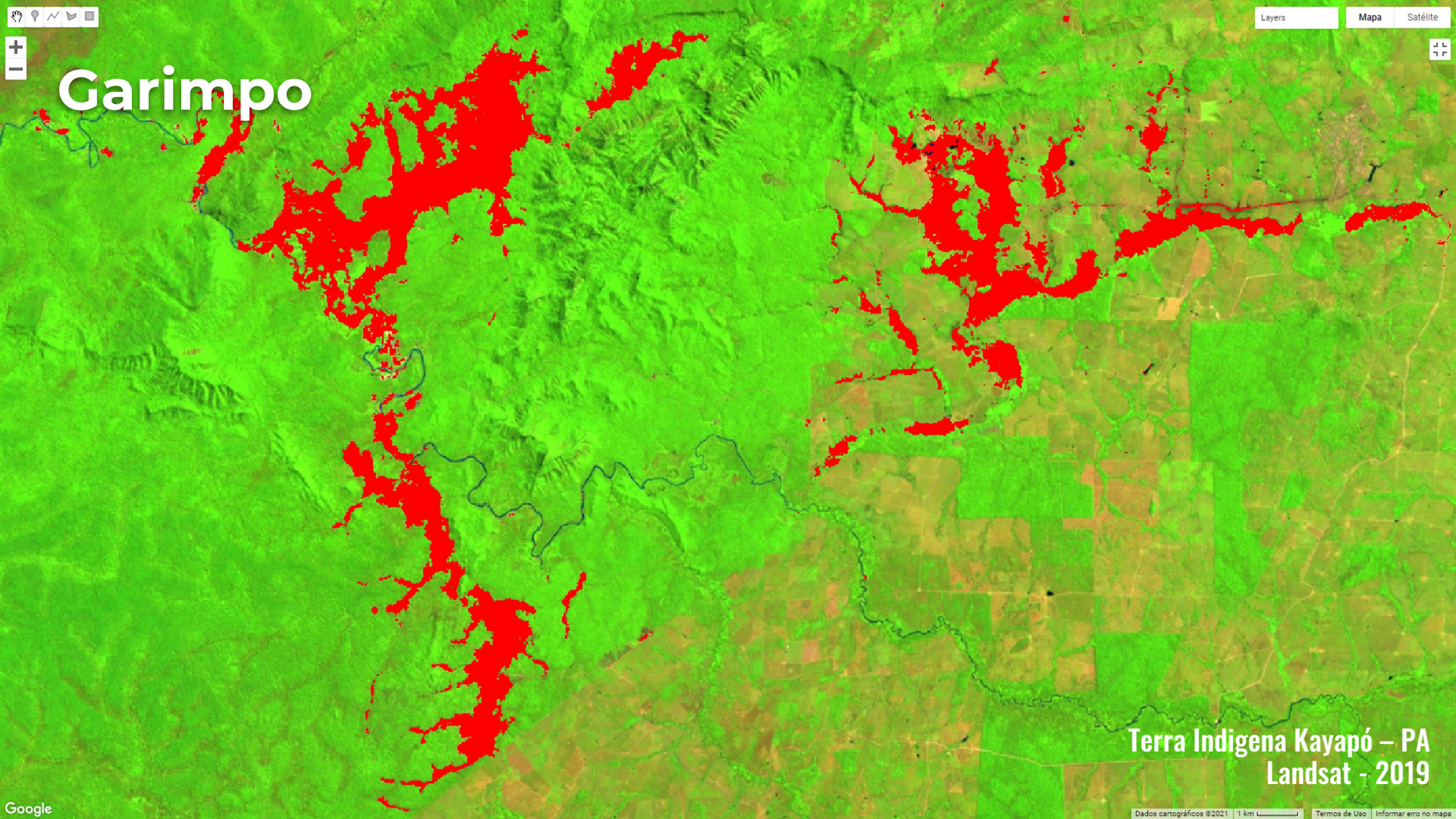


Garimpo



Terra Indígena Kayapó – PA
Landsat - 2019

Garimpo



Terra Indígena Kayapó – PA
Landsat - 2019

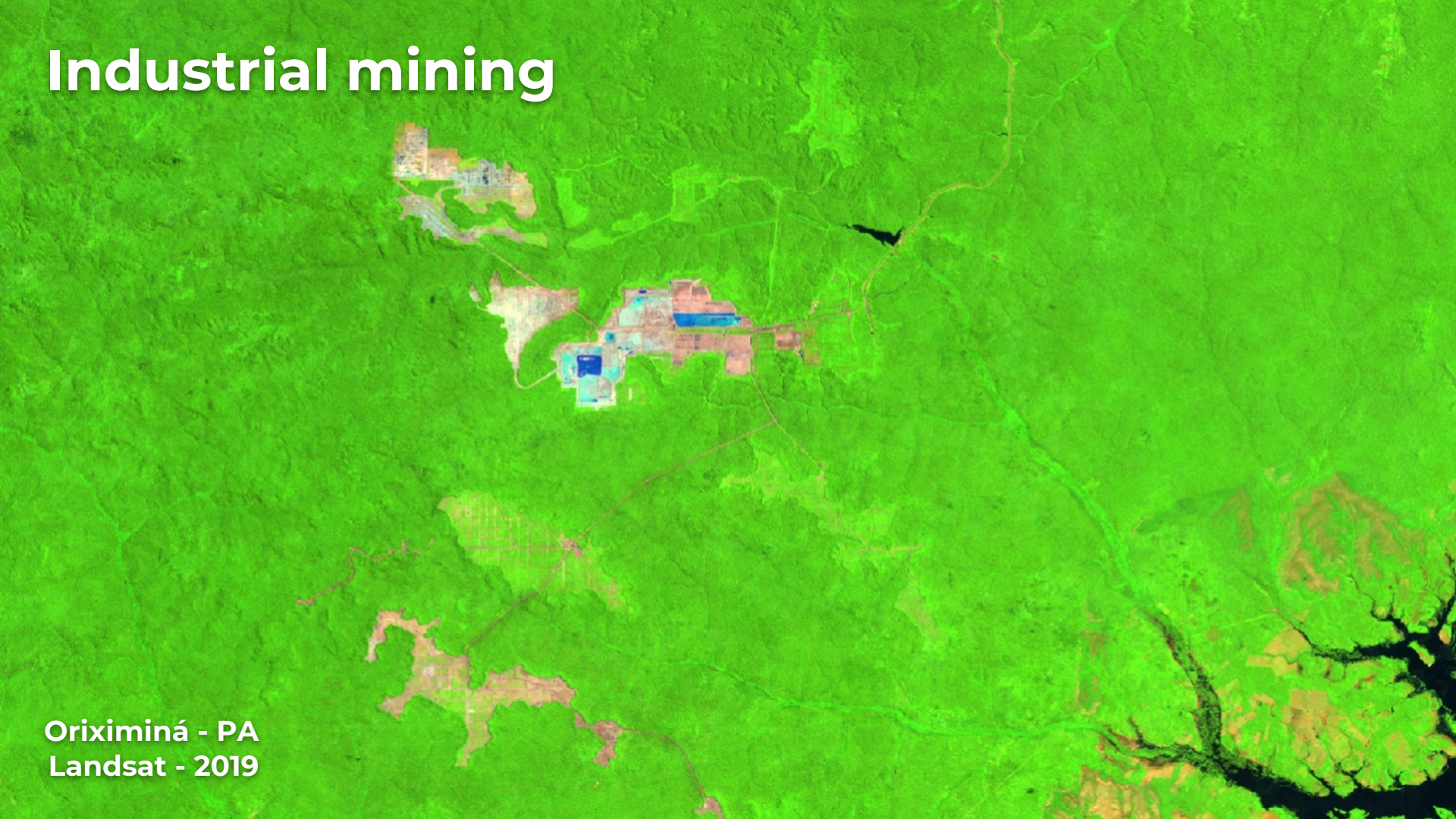
Industrial mining



Oriximiná - PA

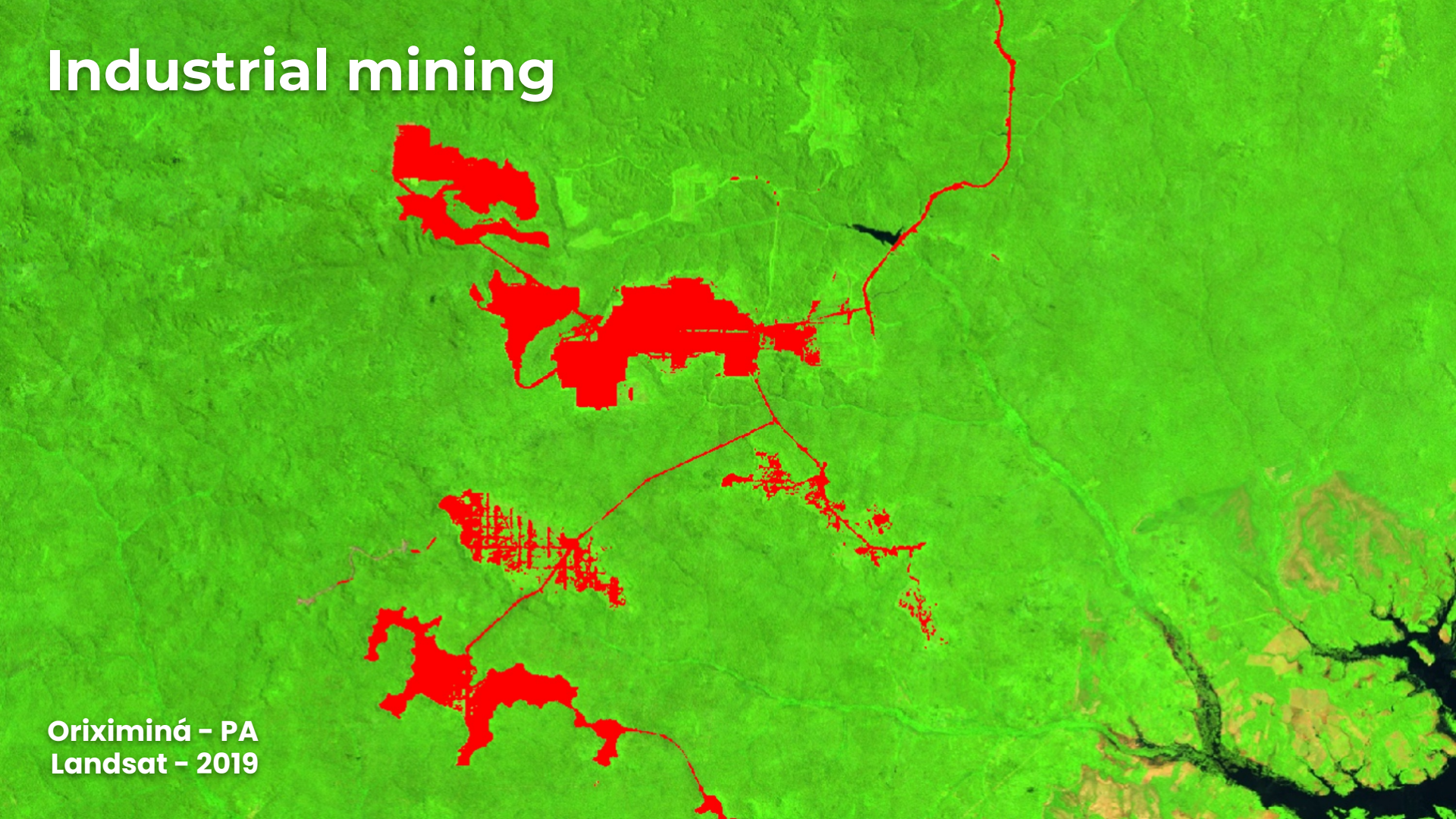
Industrial mining

Oriximiná - PA
Landsat - 2019



Industrial mining

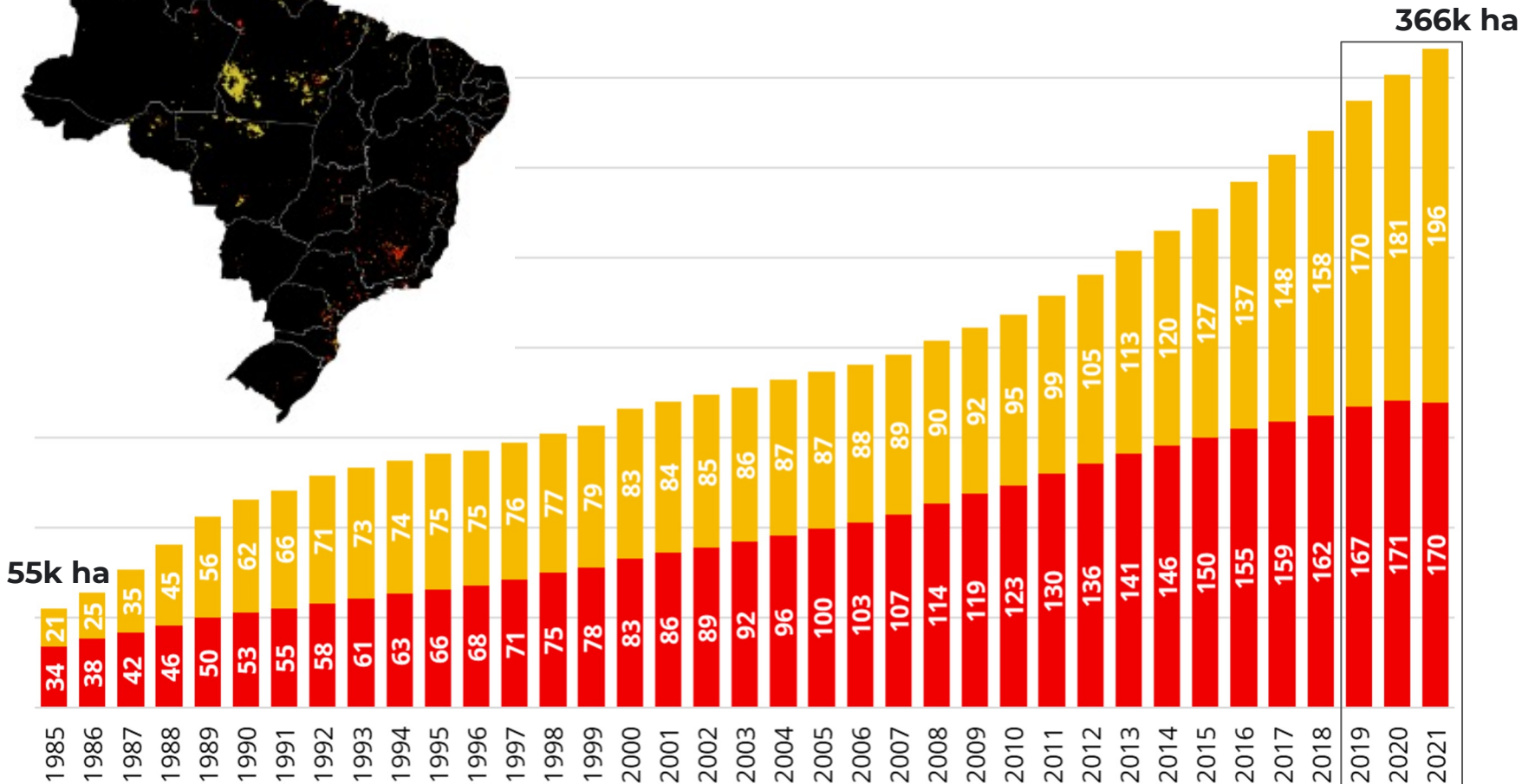
Oriximiná - PA
Landsat - 2019



2021



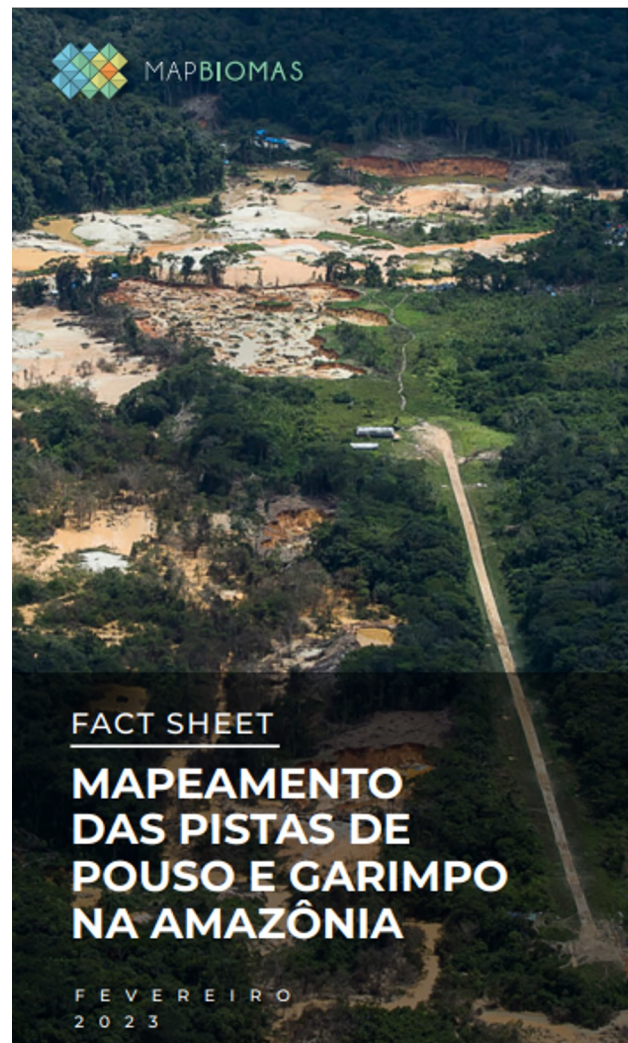
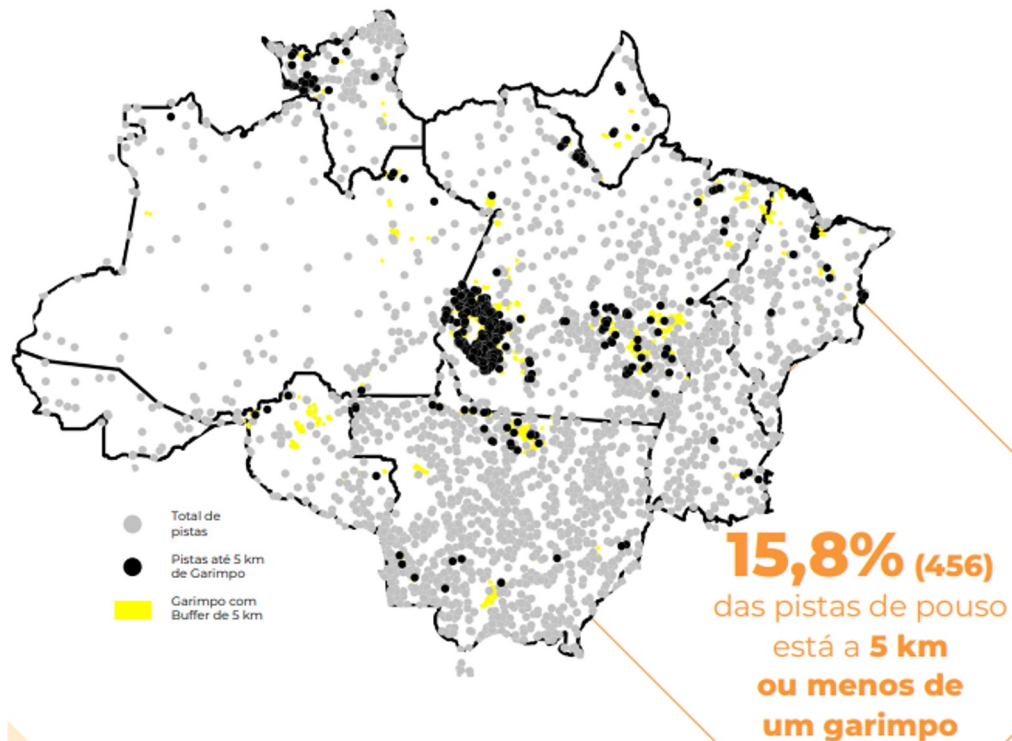
■ Garimpo ■ Industrial



Fact sheets

Airstrips and Artisanal Mining (garimpo) in the Amazon

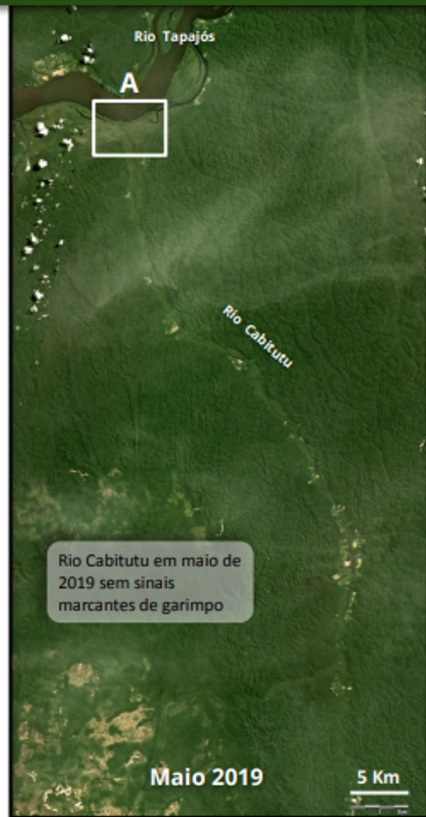
Quantidade de Pistas de Pouso ao entorno de Garimpos



Technical notes

Artisanal mining (garimpo) contamination in rivers

4.3. Influência da atividade garimpeira nos sedimentos da bacia do Tapajós



Brumadinho dam disaster

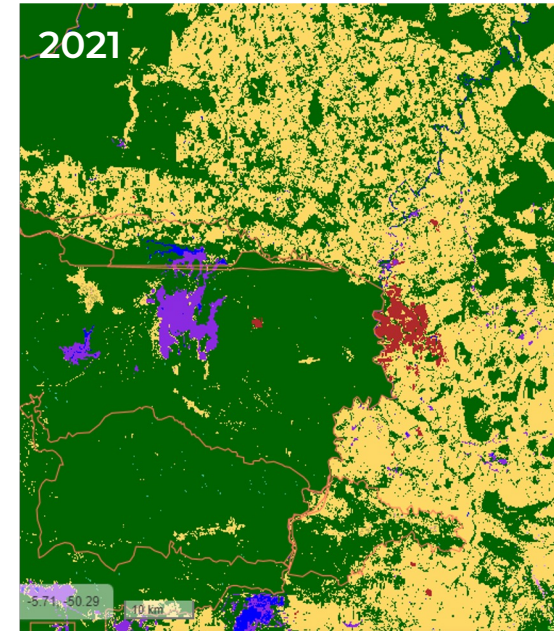
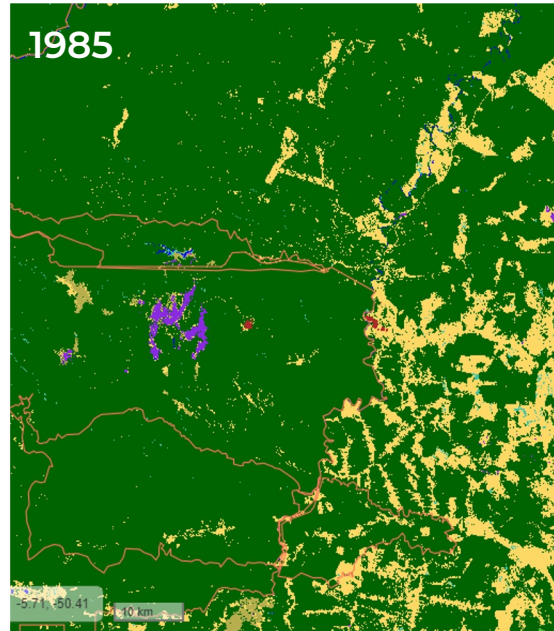
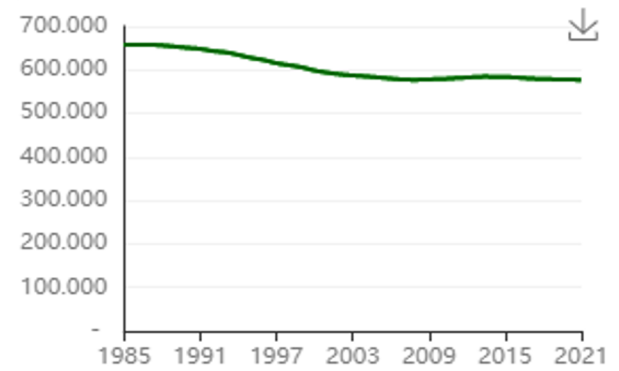
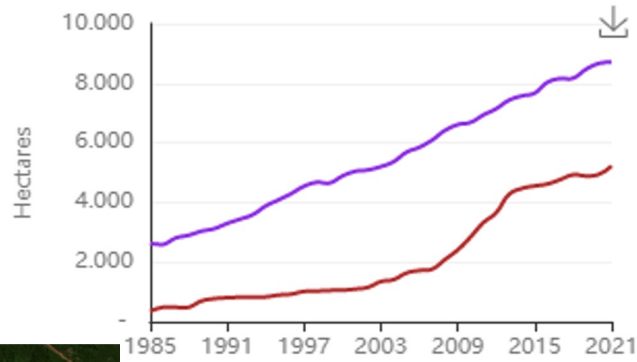
Córrego do Feijão iron ore mine - MG

270 people died

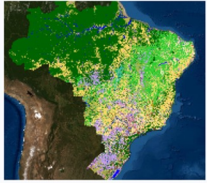


Carajás Mine

Iron mine in Carajás
National Forest,
Parauapebas, PA

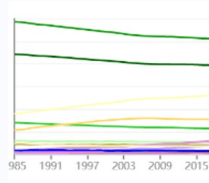


DOWNLOADS



Collection

All maps from the MapBiomas Collections in Brazil since 1985.



Statistics

Map statistics data of the MapBiomas Collections.



Landsat Mosaics

Landsat satellite image mosaics since 1985.



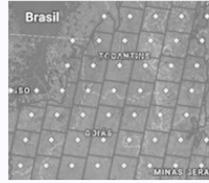
Legend Code

Legend codes of the MapBiomas' Collections.



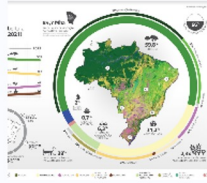
Mural Maps

Detailed map of land cover and land use of Brazil in 2021



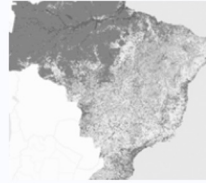
Reference Map

External material reference used in MapBiomas' Collections.



Infographics

Infographics with data from the MapBiomas' Collections.



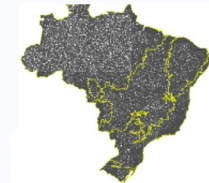
Infrastructure Data

Energy, transportation and mining infrastructure data of Brazil.



Fact sheets

Main data and highlights on Collections and specific themes.



Validation Points

Sample set used to validate the MapBiomas' Collections.



MapBiomas Cacau

Information about the Cocoa Mapping in the south of the Bahia state.



Fire Monitor Data

Data and highlights on the Burned Areas Monitor.

<https://mapbiomas.org/download>

Product Team Enterprise Explore Marketplace Pricing Search Sign in Sign up

Overview Repositories Projects Packages Stars

mapbiomas-brazil / README.md

Mapbiomas Brazil on github

Here is available all the scripts used for processing collection 5 of mapbiomas.

Summary of mapbiomas code repositories

Biomes

- Amazon
- Atlantic Forest
- Cerrado
- Gerais
- Pampa
- Pantanal

Cross Cutting themes

- Agriculture
- Impacted Agriculture
- Aquaculture

mapbiomas-brazil
mapbiomas-brazil

Follow

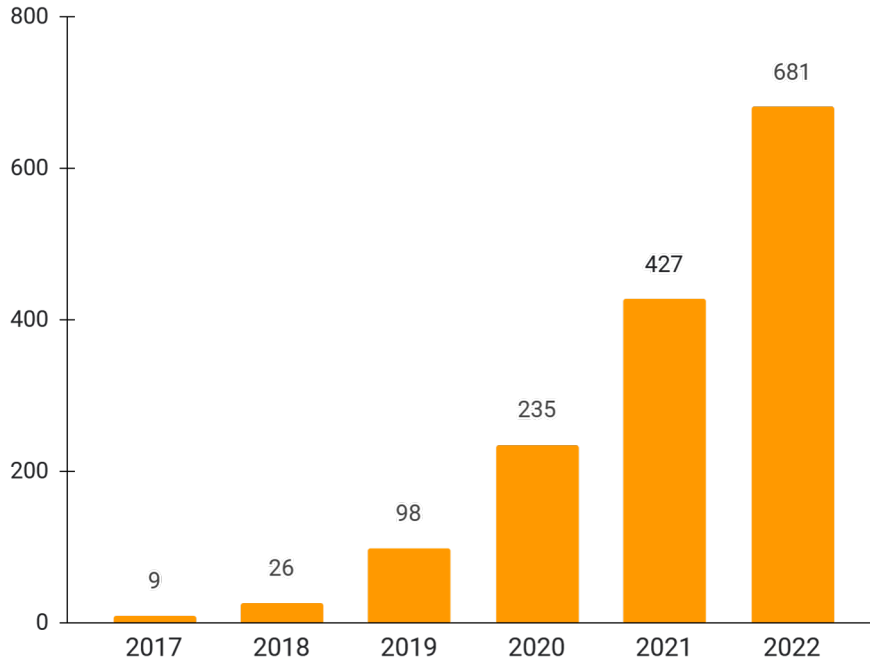
Mapbiomas is a collaborative network of biomes, land use, remote sensing, GIS and computer science experts that work to generate Brazil's annual LUUC time series

266 followers 0 following

<https://github.com/mapbiomas-brazil>

+1.610 scientific articles with data from MapBiomas (mar/2023)

5.010 citations on Google Scholar



water



viruses



remote sensing

Technical Cooperation Agreements

Signed TCA

TCA to be signed

Other technical collaborations



State environmental agencies





mapbiomas.org

