

GUARDIAN FORESTAL

Saving Mexico's
Forests Using EO,
Coding, and a Pinch
of Legal Insights





Context

- Michoacan is located in central Mexico
- Top 5 in forest resources
- Leading agricultural state
- Home of the monarch butterfly
- Loss more than 100,000 hectares of forest

How did this happend?

- 6 million hectares
- Organized crime
- Precious woods
- Great forest land for avocados
- 60 enviornmental activiest killed in the las 20 years



Americans Love Avocados. It's Killing Mexico's Forests.

Illegal deforestation for avocado crops points to a blood-soaked trade with the United States involving threats, abductions and killings.

About Us

- Founded in 2011
- 16 people working with the team
- Experience in satellite monitoring of crops



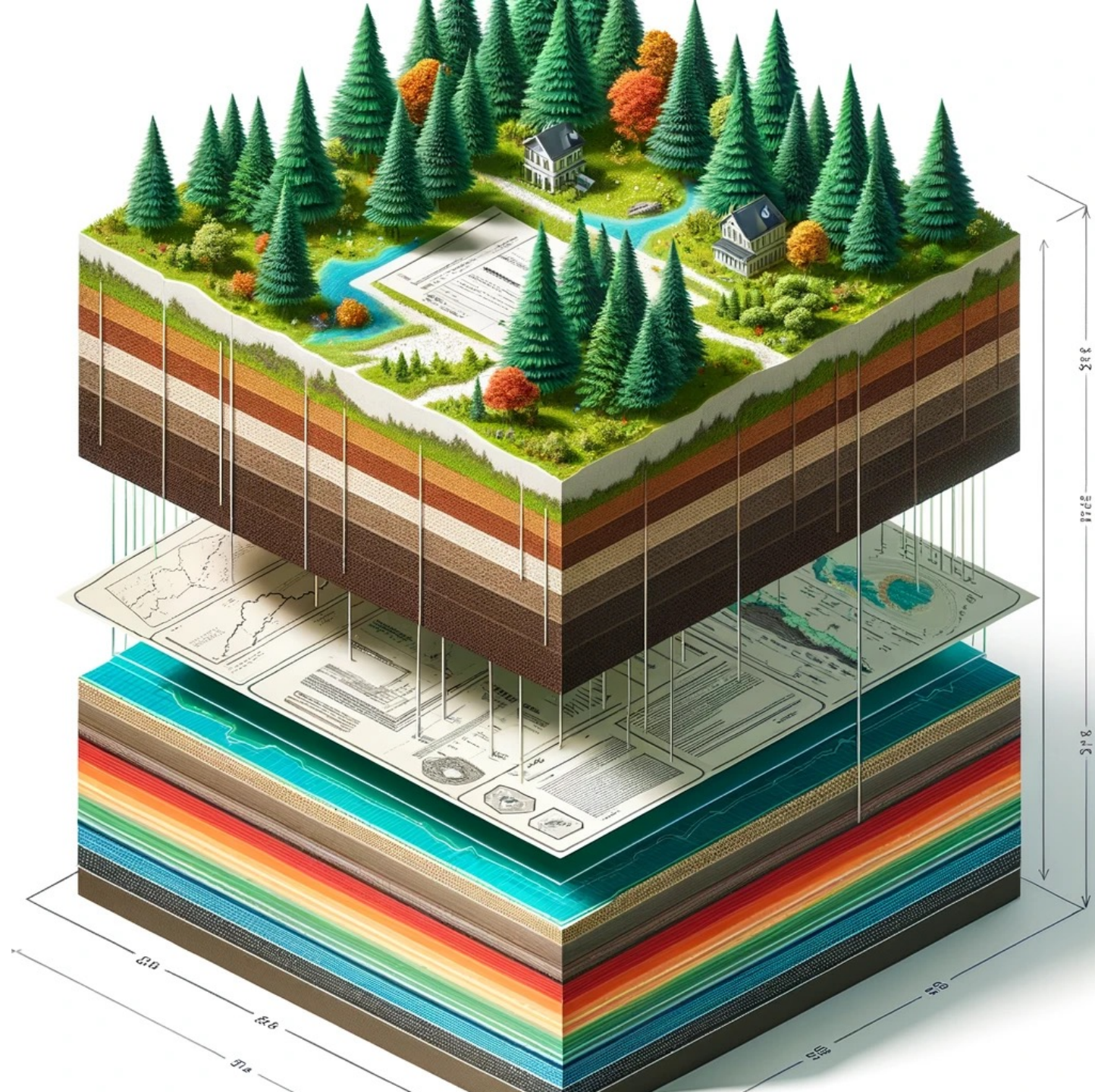
We Created “Guardian Forestal”

- To monitor 6 million hectares
- To protect environmental defenders
- To enforce environmental justice
- To generate scientific evidence
- To act as a watchdog for the authorities



Data integration

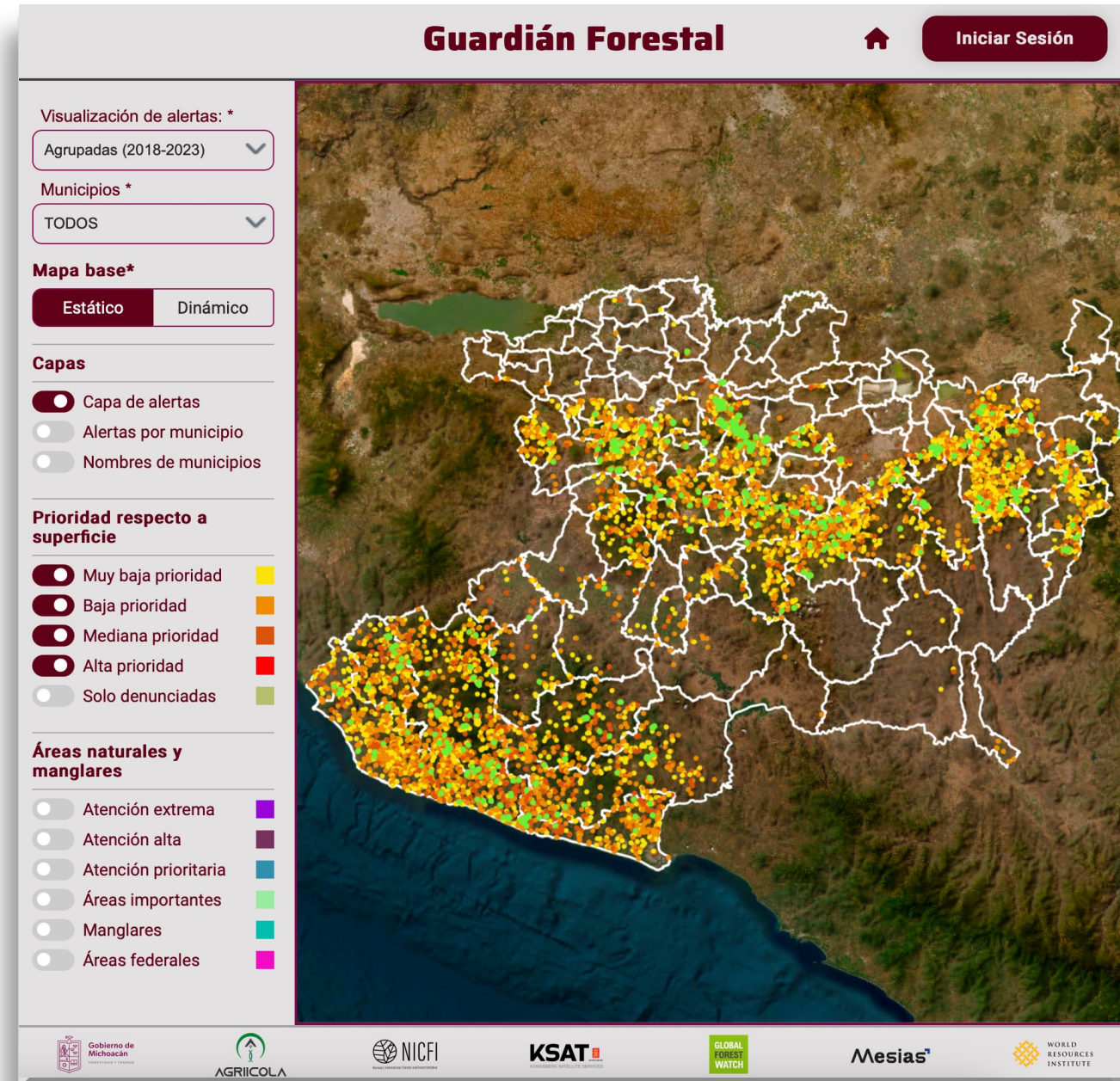
- Deforestation alerts from GFW
- GLAD alerts
- NICFI basemaps
- Geographical information of the Mexican territory
- Connected with several authorities
- We create an automated and legal report



Guardian Forestal

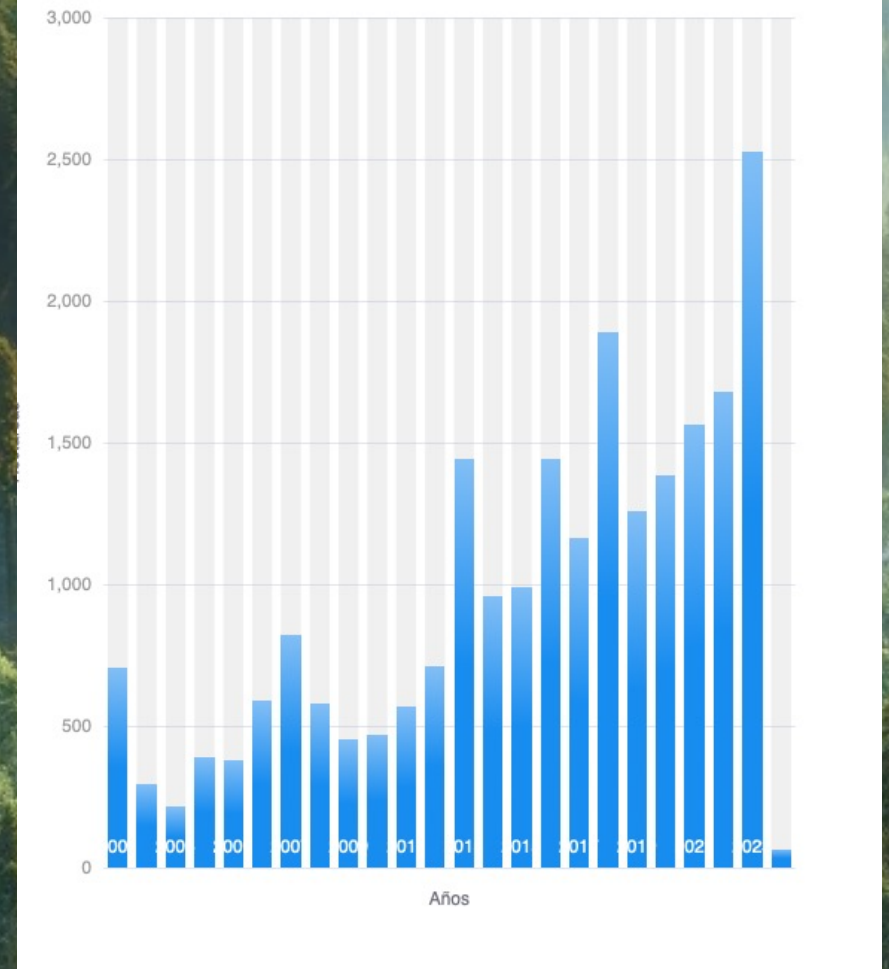
- We receive alerts
- The system classifies and processes them
- We display them in an interface for viewing the result

Available at
www.guardianforestal.com



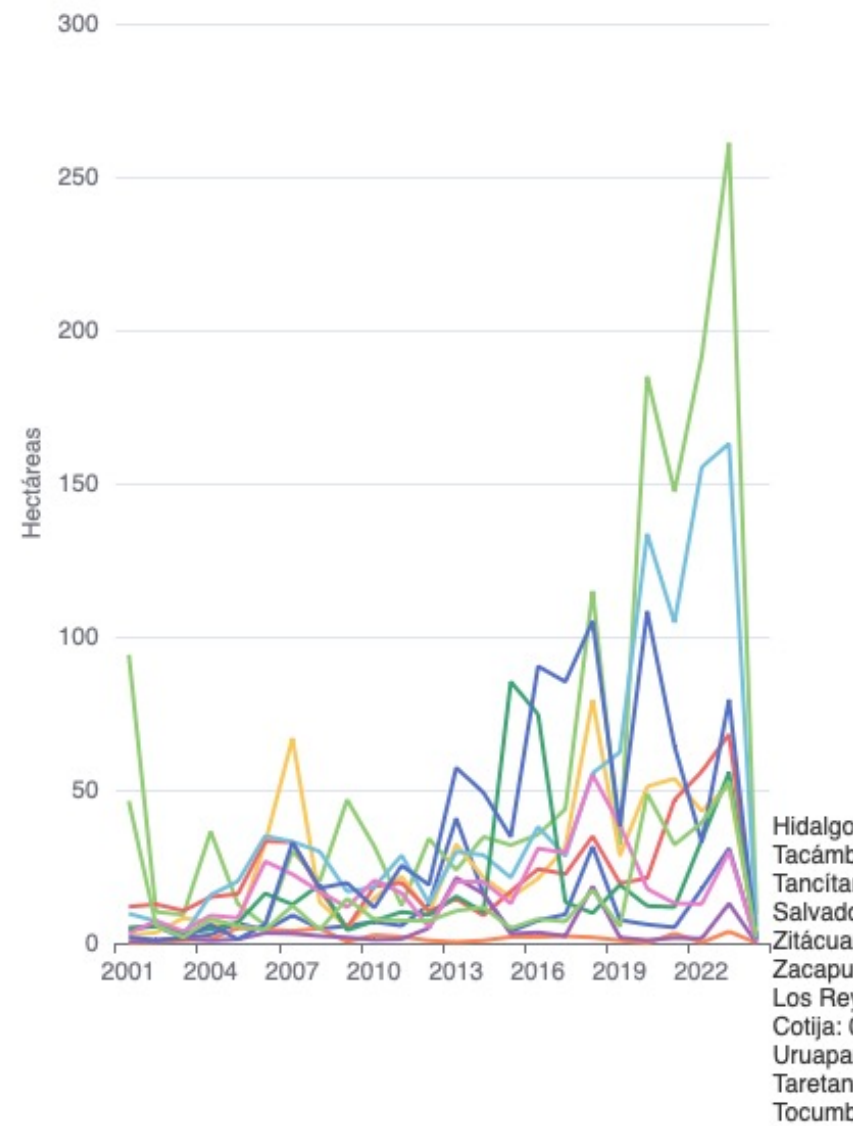
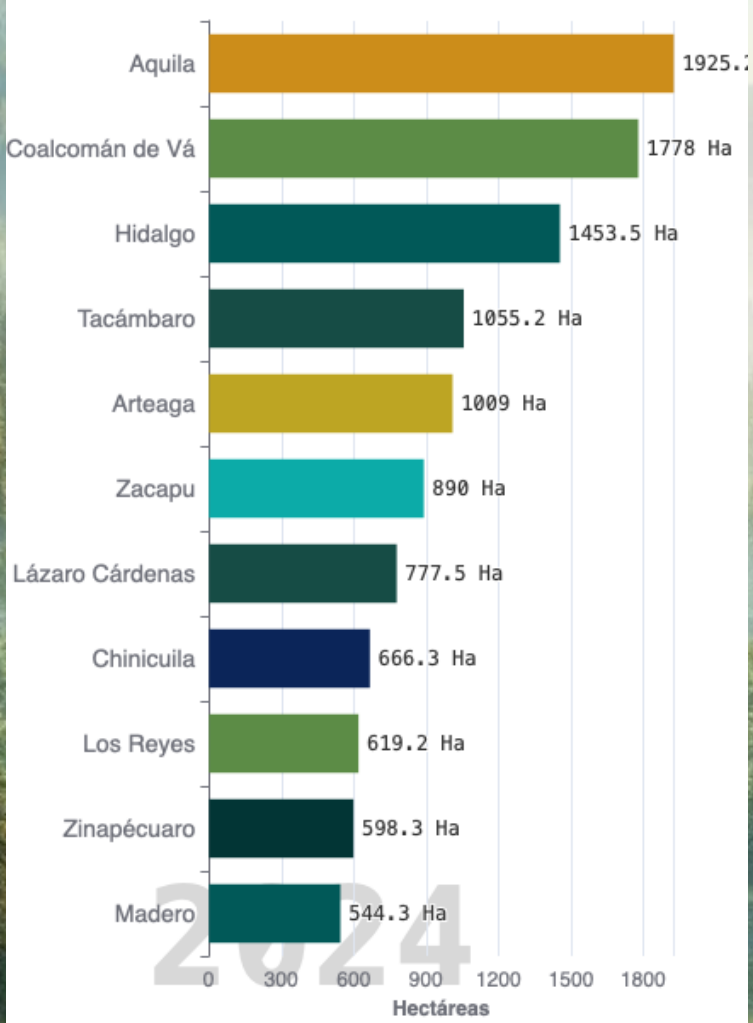
Cambio de cobertura forestal por año en Michoacán

Área indicativa en hectáreas de cambio de cobertura del 2001 - 2024. (Para visualizar el top 10 de click en e



Evolución del cambio de cobertura forestal en Mic

Municipios con mayor superficie que cambio su cobertura forestal



Guardián Forestal

Visualización de alertas: *

Agrupadas (2018-2023) ▾

Municipios *

TODOS ▾

Mapa base*

Estático

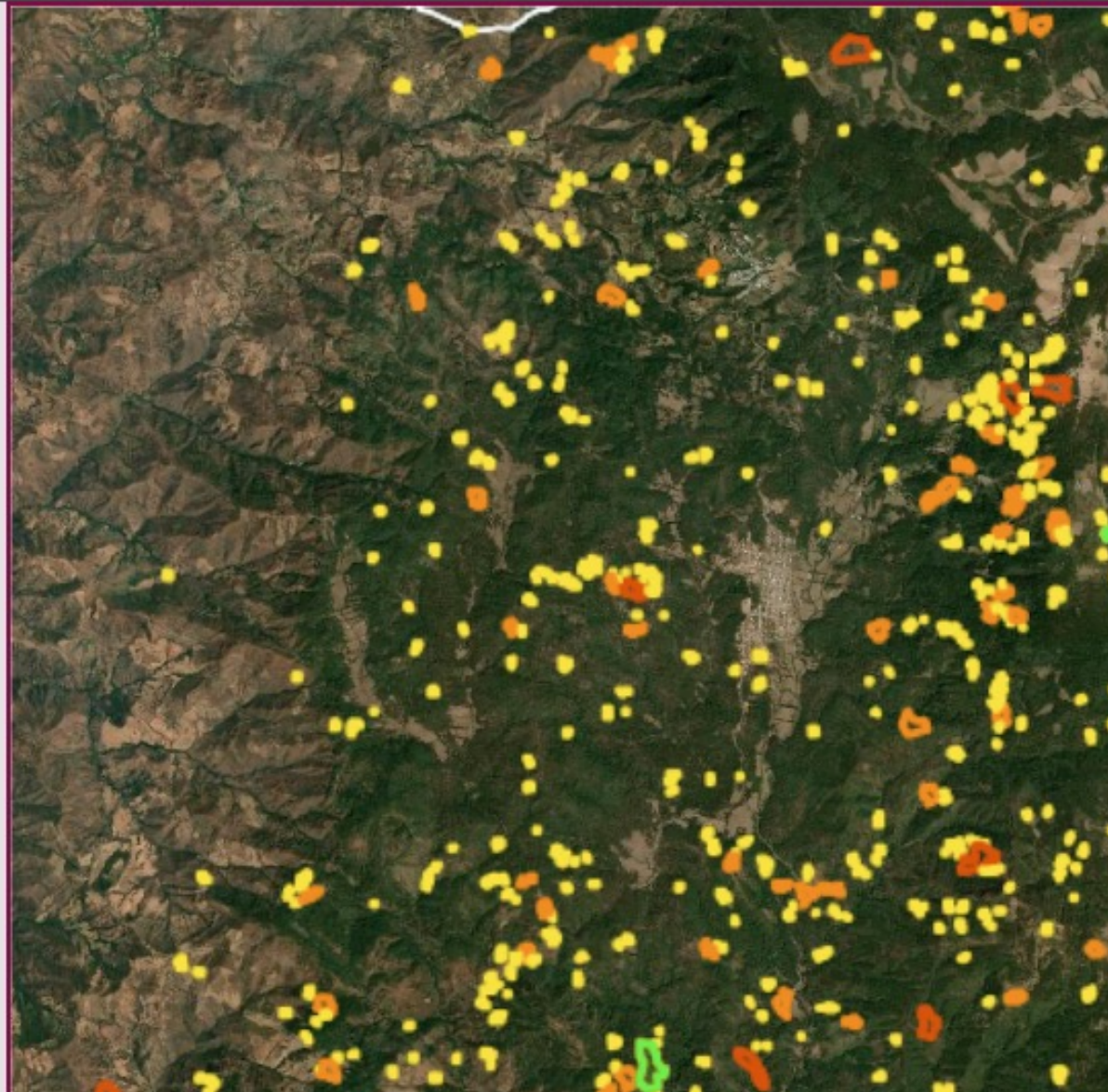
Dinámico

Capas

- Capa de alertas
- Alertas por municipio
- Nombres de municipios

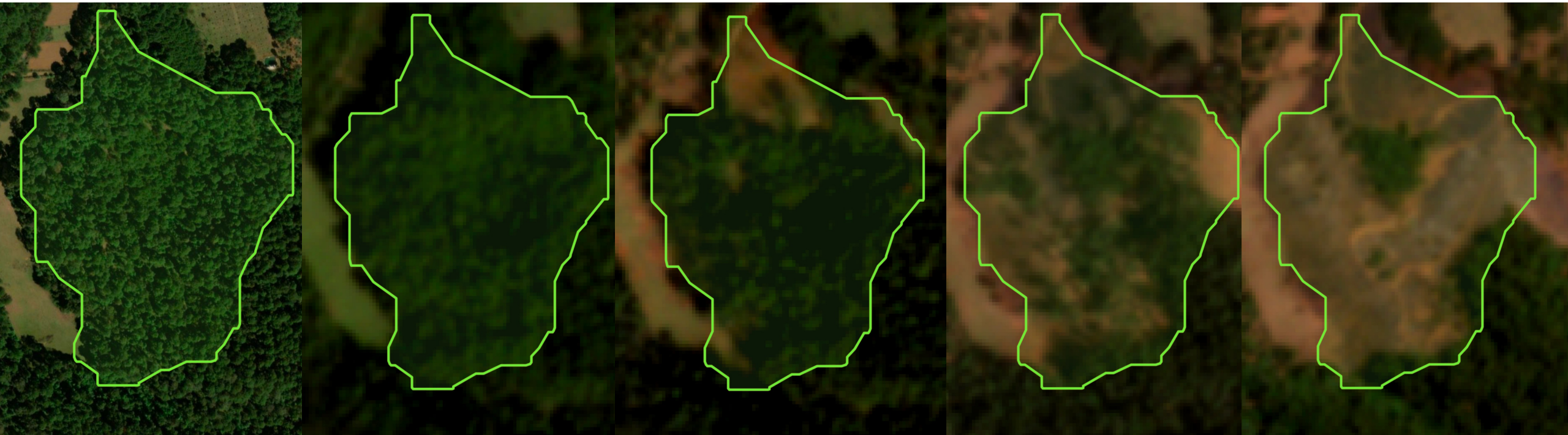
Prioridad respecto a superficie

- Muy baja prioridad ■
- Baja prioridad ■
- Mediana prioridad ■
- Alta prioridad ■
- Solo denunciadas ■



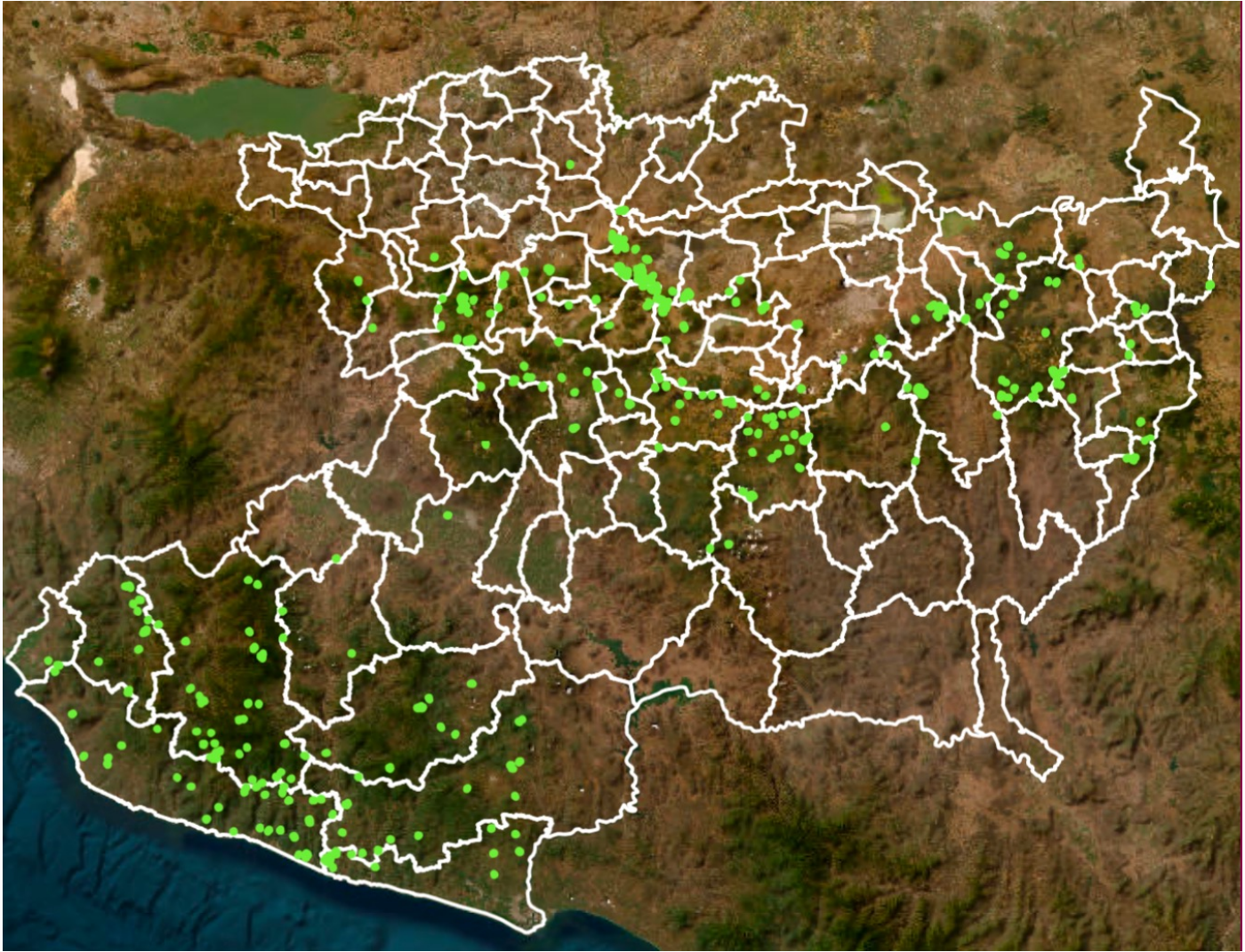
Complaint

- The green polygon is a convex hull of the accumulated deforestation alerts between 2018 and 2024.
- After passing certain filters it becomes a formal complaint.
- With NICFI images, we manage to provide evidence of the change of land use.



Progress

- 327 complaints
- Corresponding to an estimated area between 5,500 to 8,300 hectares.
- These are represented by the green polygons on the map.



The results

- We received funding from the government of Michoacán.
- We were featured in state, national, and international media for 25 consecutive days.
- A division of 100 forest police was created to address complaints and monitor satellite alerts.
- Forest Guardian has been used to certify avocados as deforestation-free.
- Ken Salazar became acquainted with and recognized Forest Guardian.
- The Ambassador of the United Kingdom supports Forest Guardian.
- The Ambassador of the European Union backs Forest Guardian.
- The process of addressing a complaint has been reduced from 7 months to 3 weeks.

Guardián Forestal, proyecto ejemplar: Ken Salazar

📅 26 de febrero de 2024, 10:43



How can we stop losing forest?

We need to create value for the forest.





What do we need?

- Understanding the value of the forest
- Measuring biomass.
- Calculating environmental services
- Calculating carbon sequestration.
- Providing this information to those who need it so they stop selling the forest.
- Finding funding for Forest Guardian.

