

Use of Geospatial Technologies to Build Sustainable Public Policies in Paraguay: Saving the Upper Paraná Atlantic Forest

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- Main cities
- Alta Parana Atlantic forests
- Cerrado
- Chaco
- Humid Chaco
- Pantanal



WWF, Paraguay



<http://www.mbertoni.org.py>



<http://parquesnacionalesdelparaguay.blogspot.com>



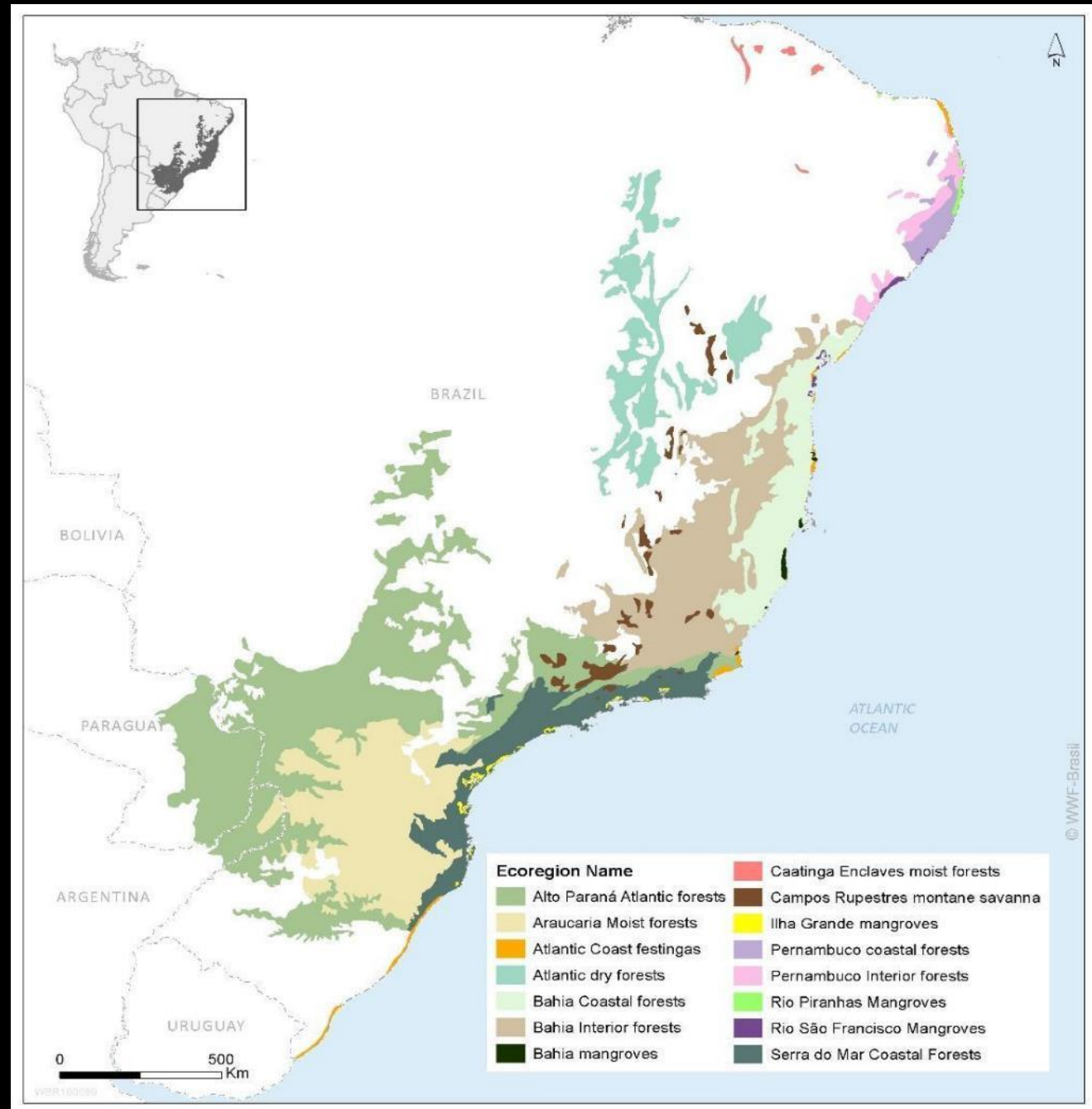
WWF, Paraguay



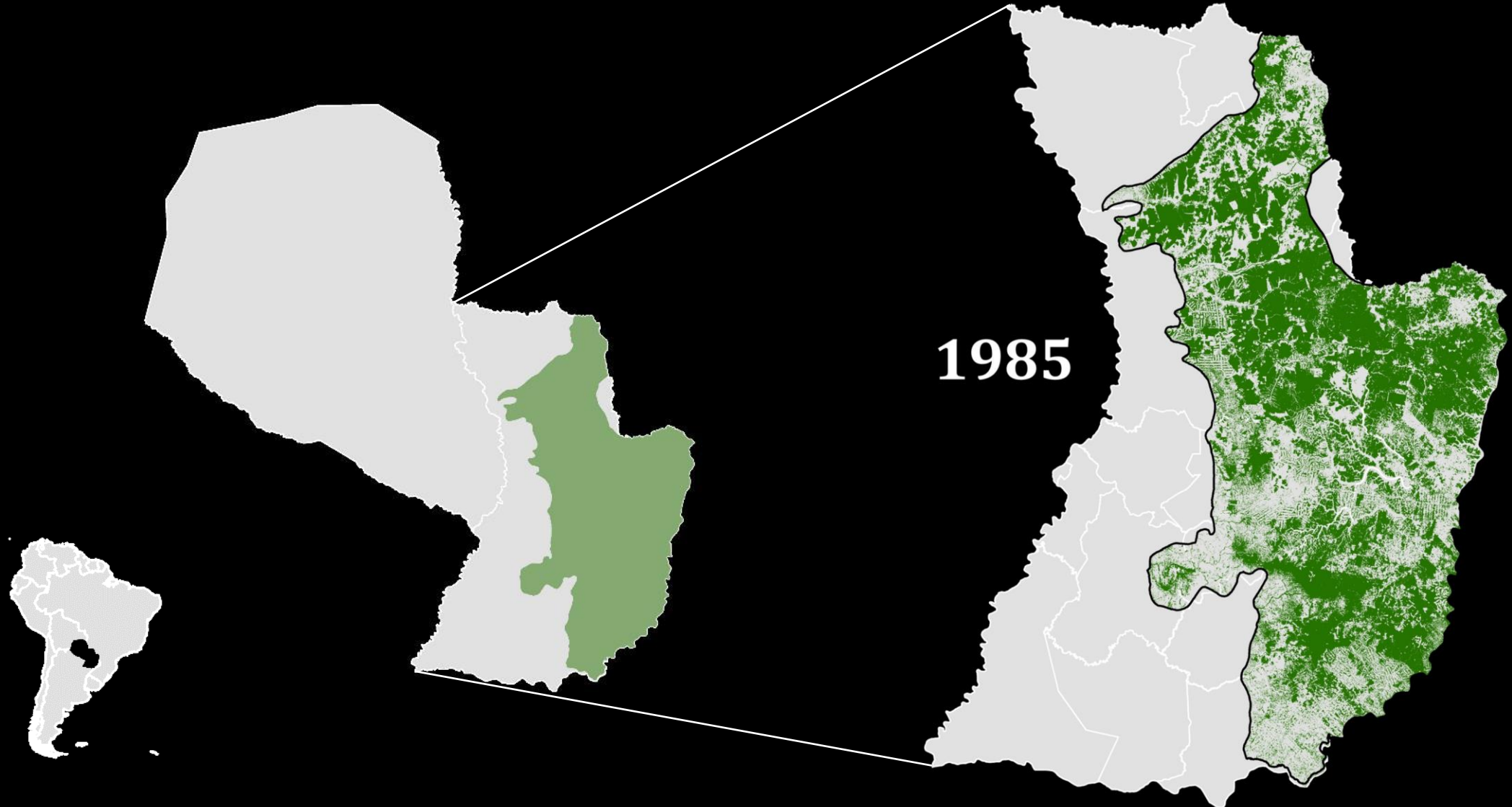
<http://www.portalguarani.com>



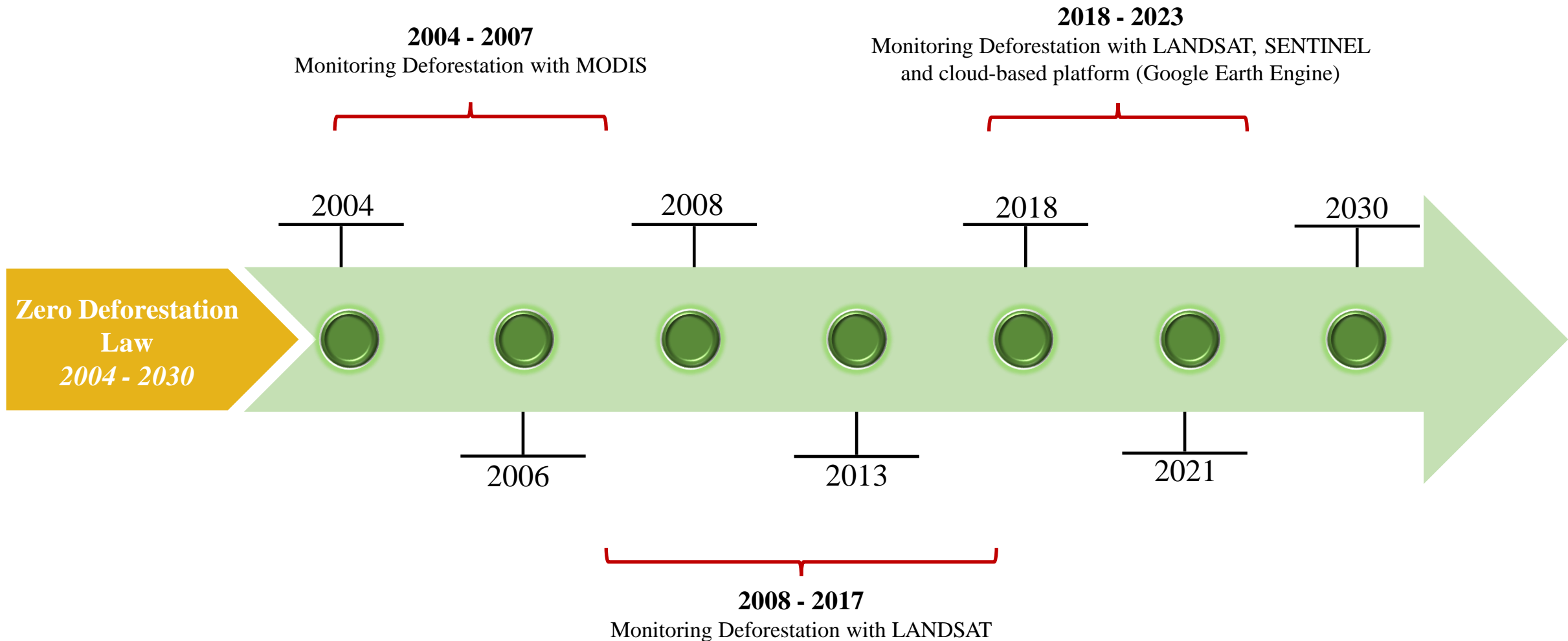
Atlantic Forest Complex



Forest cover – Atlantic Forest 1985 - 2021



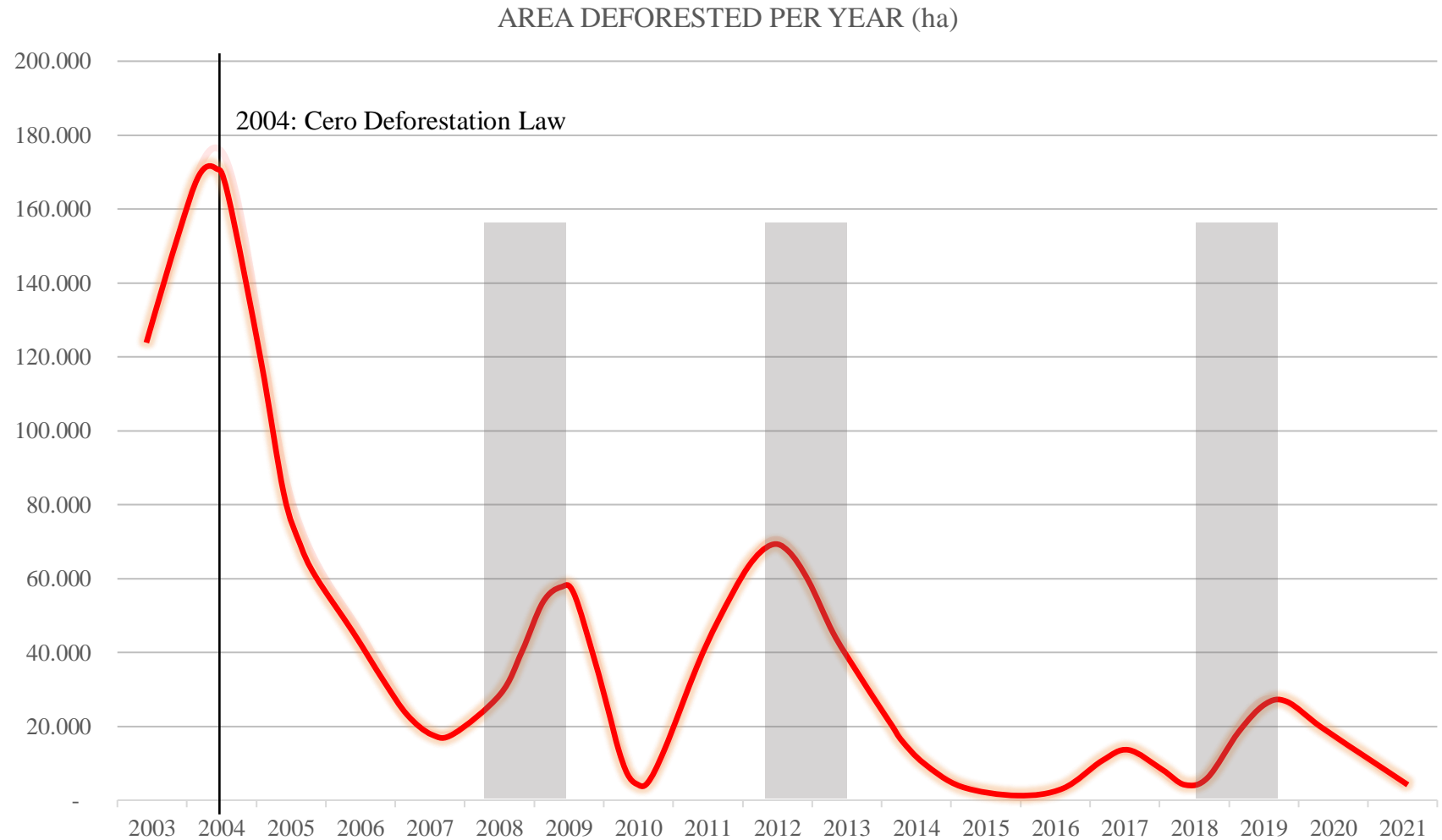
Deforestation in the Atlantic Forest



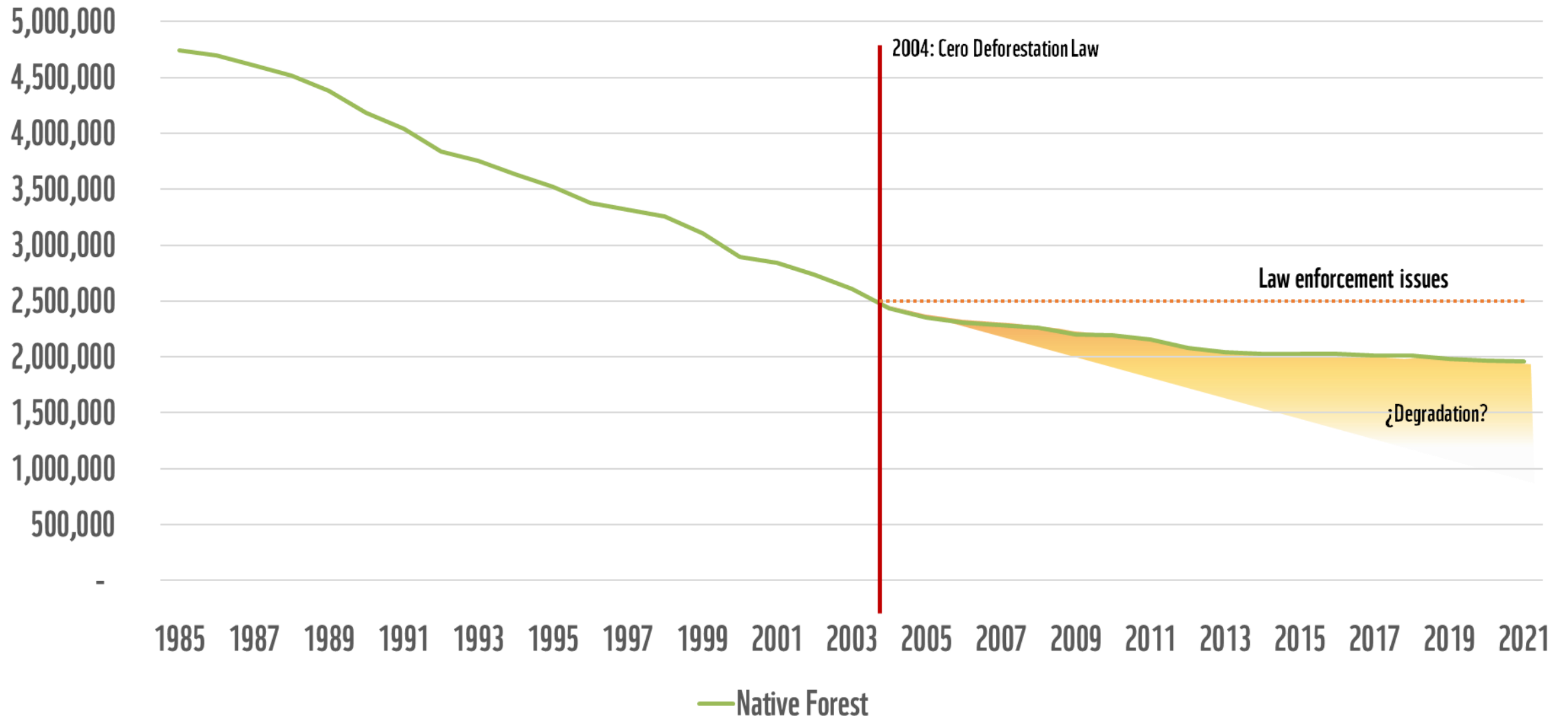
Deforestation of the Atlantic forest in Paraguay

YEAR	DEFORESTED AREA (ha)
2003	128.083
2004	175.670
2005	81.847
2006	45.523
2007	18.412
2008	28.398
2009	58.577
2010	4.169
2011	43.397
2012	70.617
2013	40.127
2014	11.850
2015	2.136
2016	1.884
2017	13.228
2018	4.346
2019	27.251
2020	17.290
2021	4.318
TOTAL	777.124

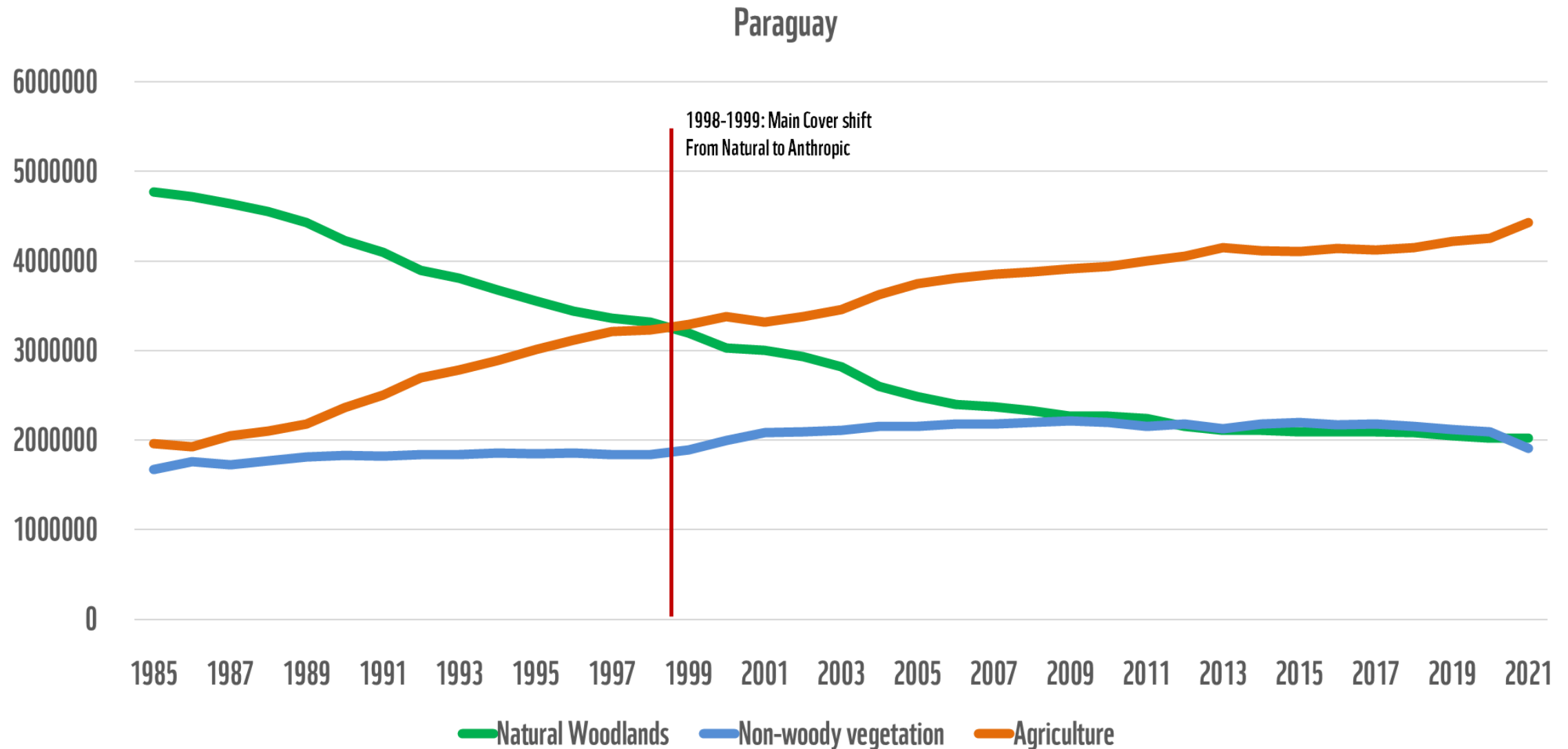
Source: MapBiomass 2022



Atlantic Forest Coverage in Paraguay



Coverage in the Atlantic Forest in Paraguay



Drivers of deforestation

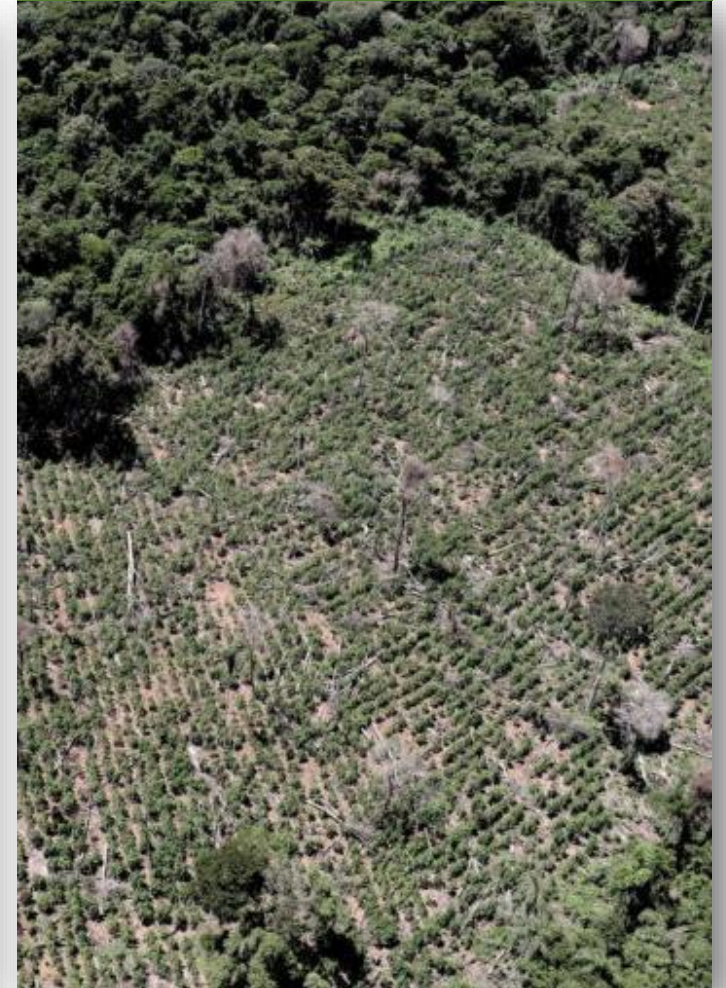
Livestock



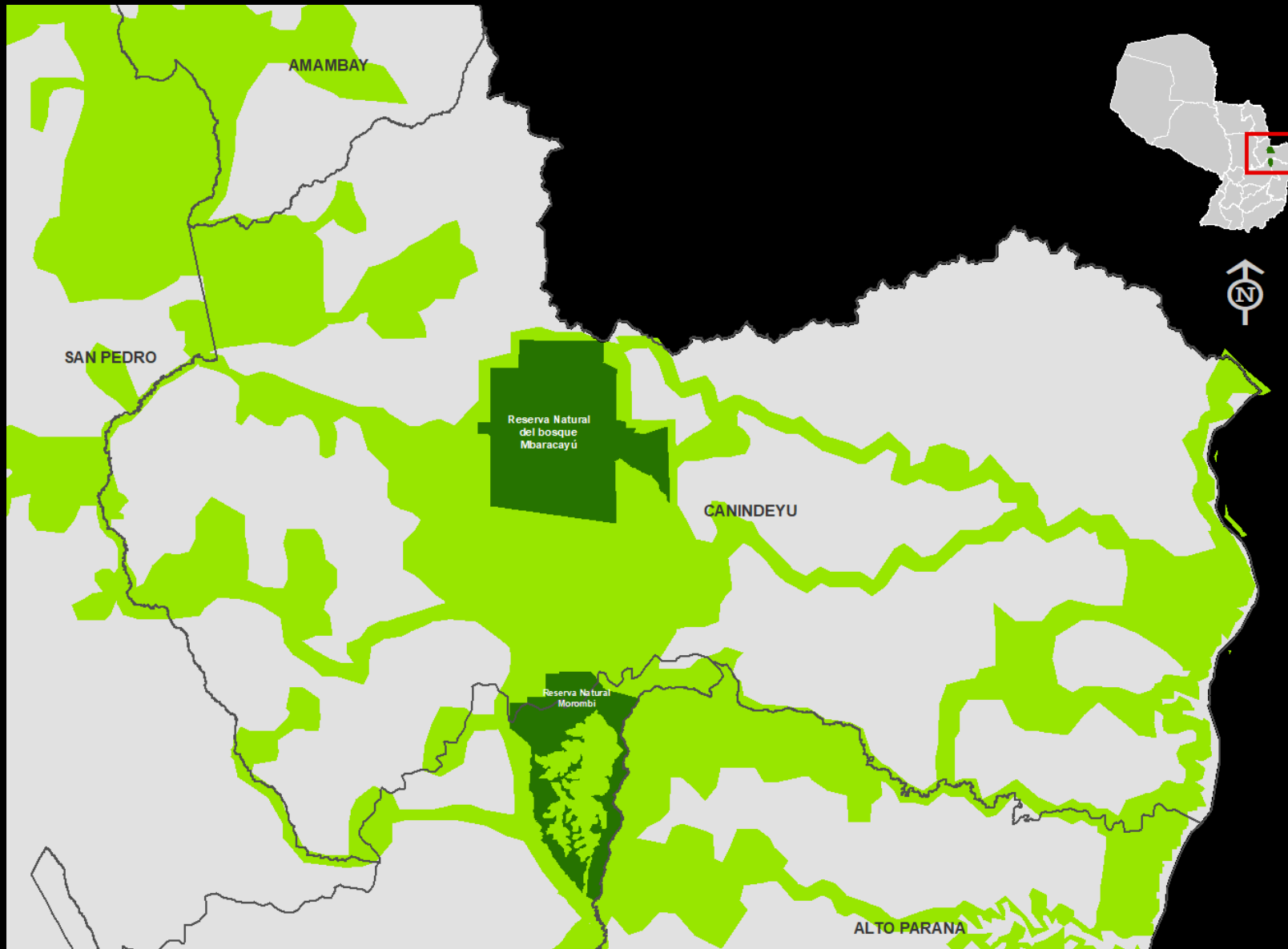
Mechanized Agriculture



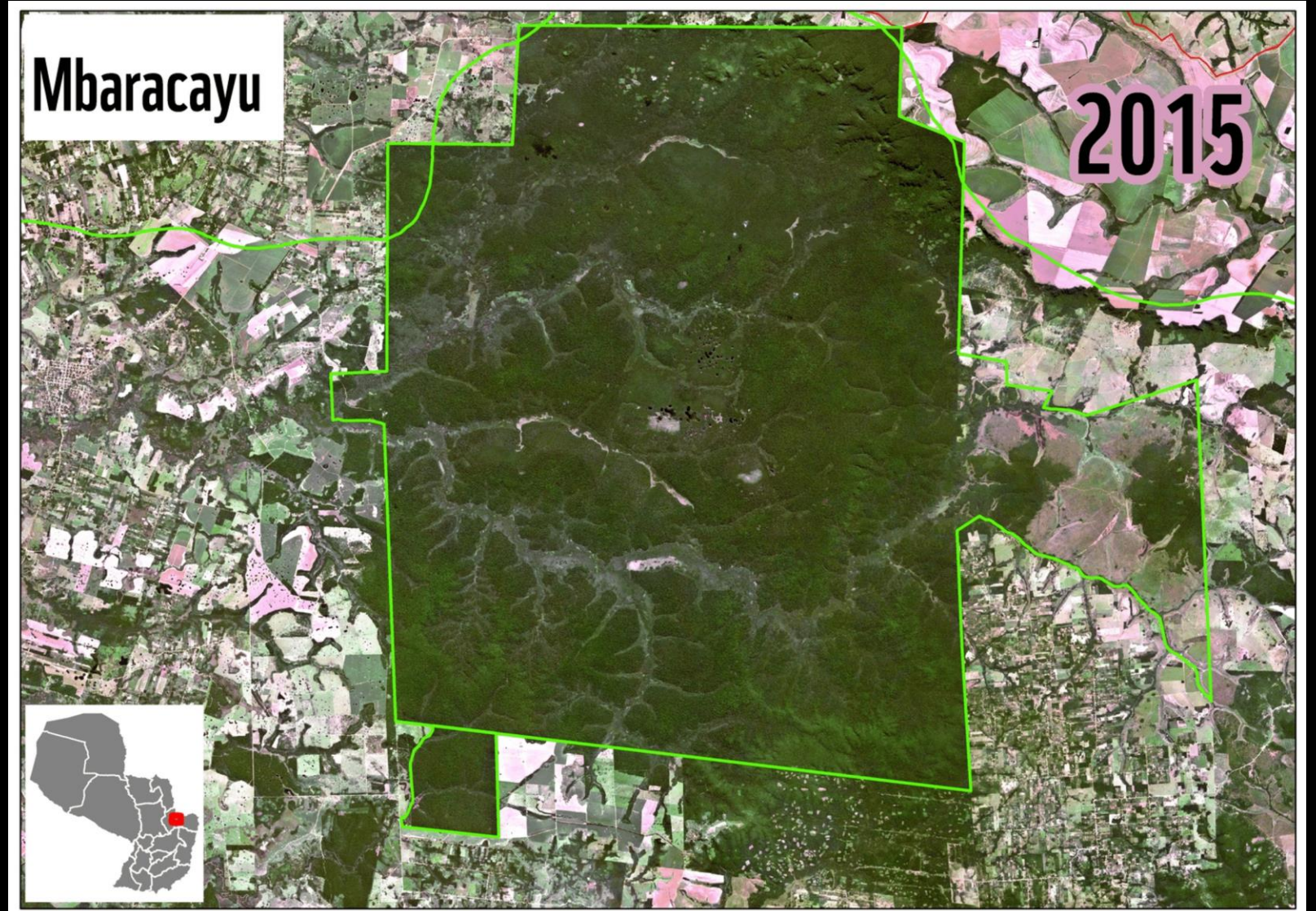
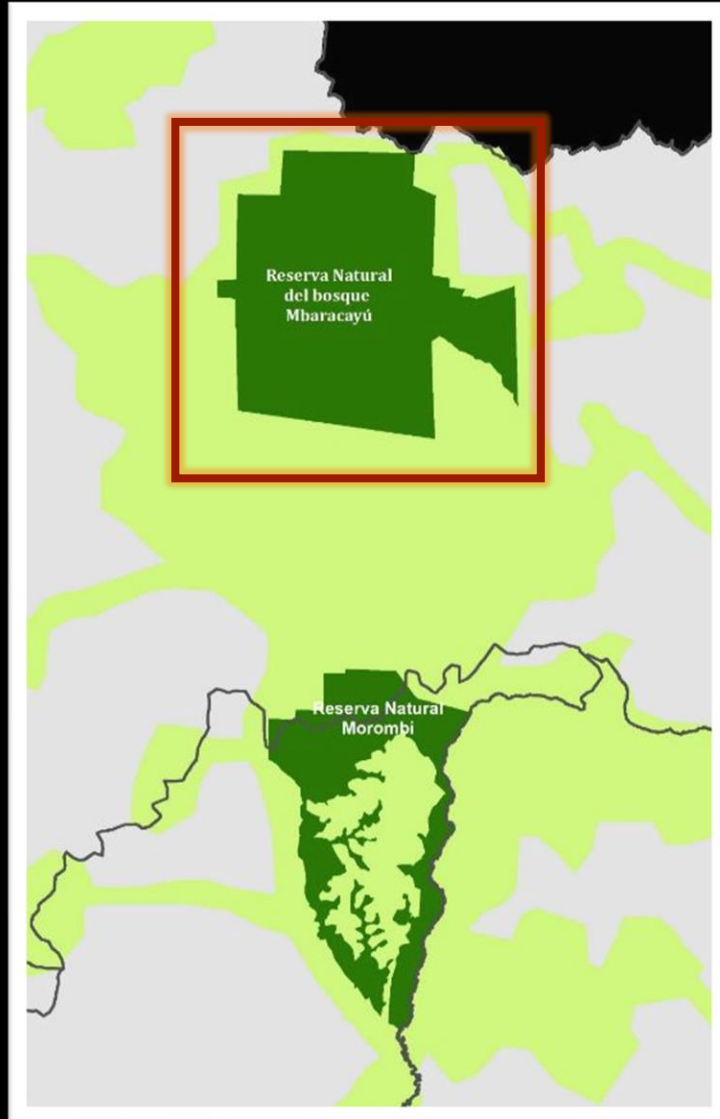
Illegal crops (marihuana)



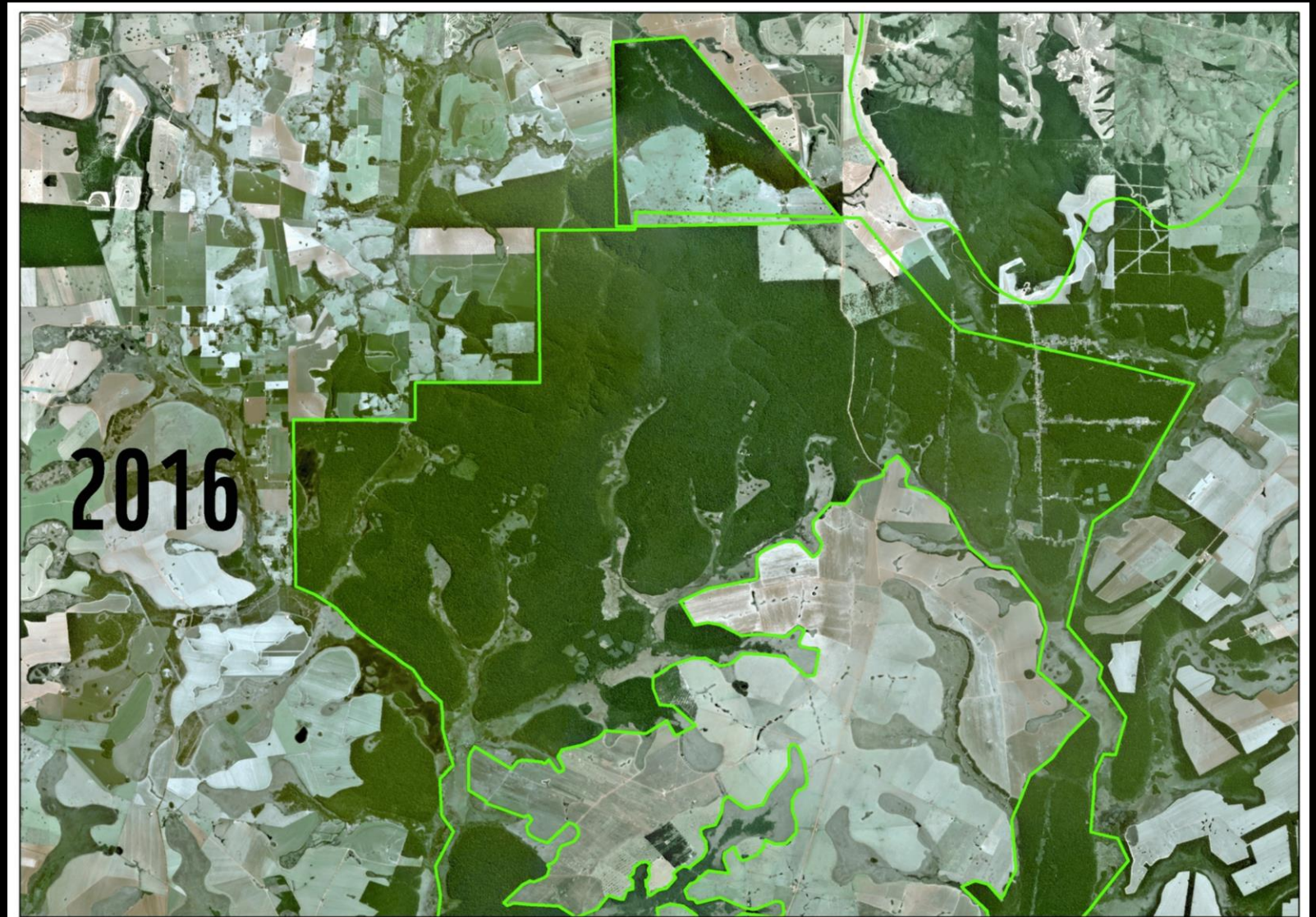
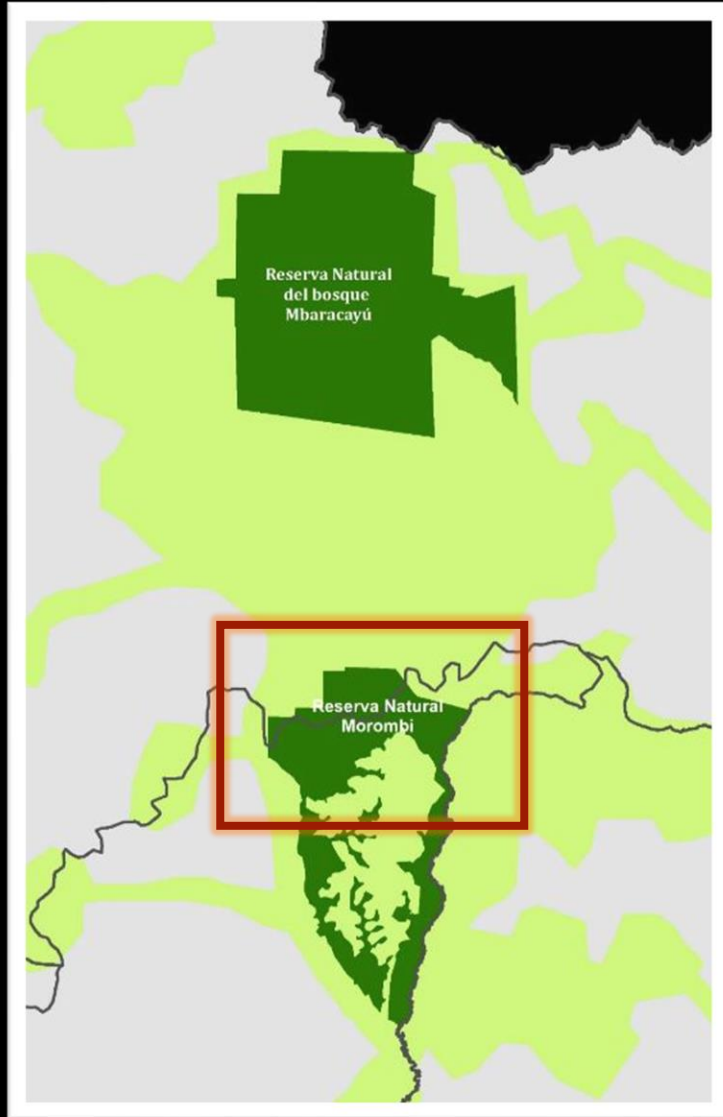
Corridors between protected areas



Protected Areas and the Marihuana expansion



Protected Areas and the Marihuana expansion



What we did...



SOCIAL PACT AND ZERO CONVERSION LAW

Public campaign that led to the creation of legislation that has been successful in reducing deforestation.



PARAGUAY LAND-USE (PARLU)

Initiative "Protecting Forests for the Benefit of Climate, People and Nature in Paraguay".



SUPPORT OF PRIVATE PROTECTED AREAS AND PES

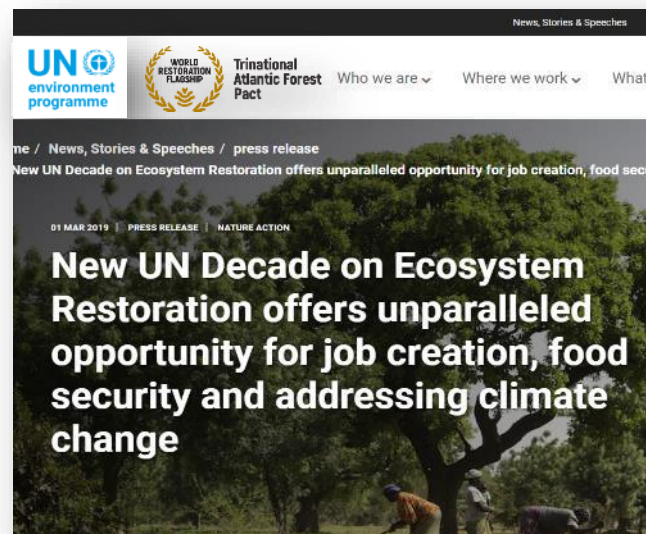
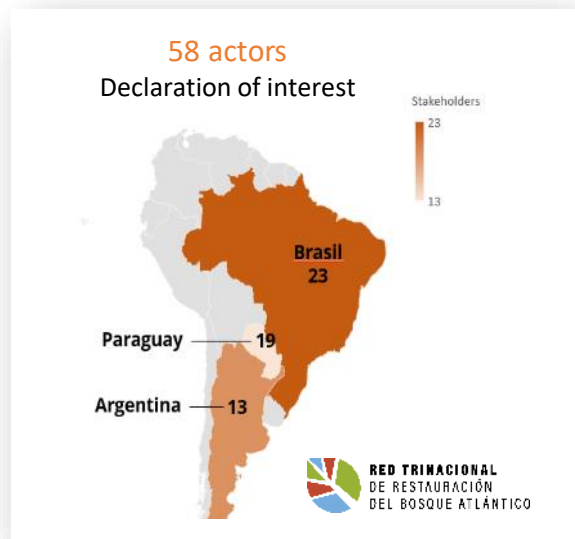
Support in the creation and maintenance of private protected areas. Plus, the promotion of payments for forest services.



RECOGNITIONS TO THE PUBLIC SECTOR

The vice President
The Ministry of the Environment.
The congress.

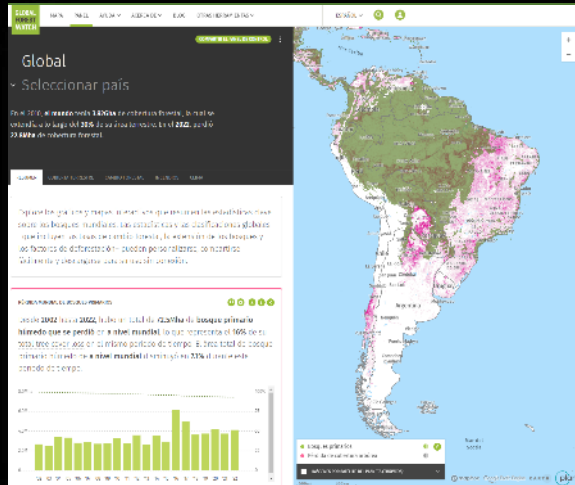
Opportunities



The Atlantic Forest was chosen among the 10 priority UN Global Restoration Flagship Initiative To restore 1 billion hectares

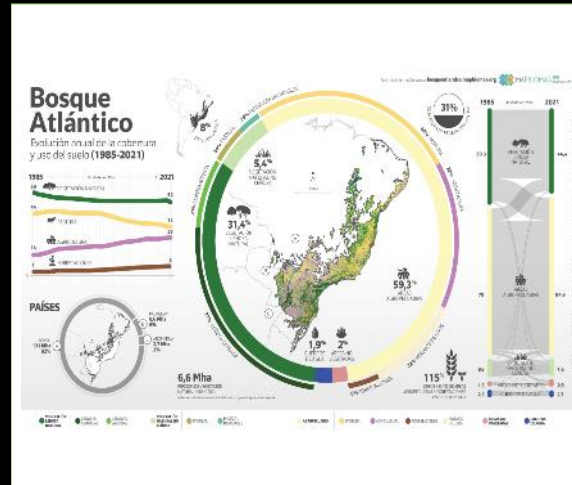


The era of cloud-based deforestation monitoring



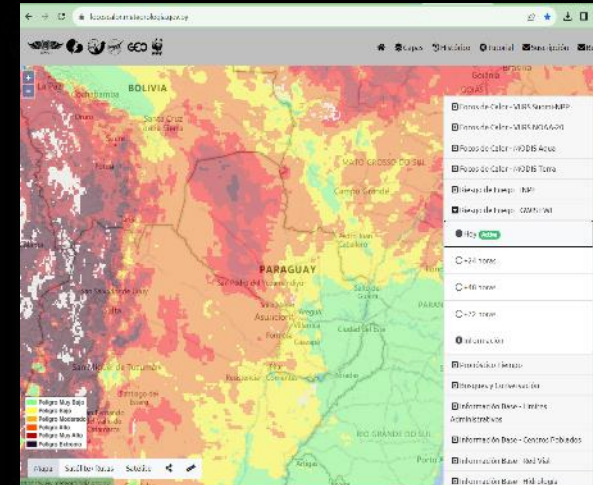
GLOBALFOREST WATCH

Forest monitoring designed for action. GFW offers the latest data, technology and tools that empower people everywhere to better protect forests.



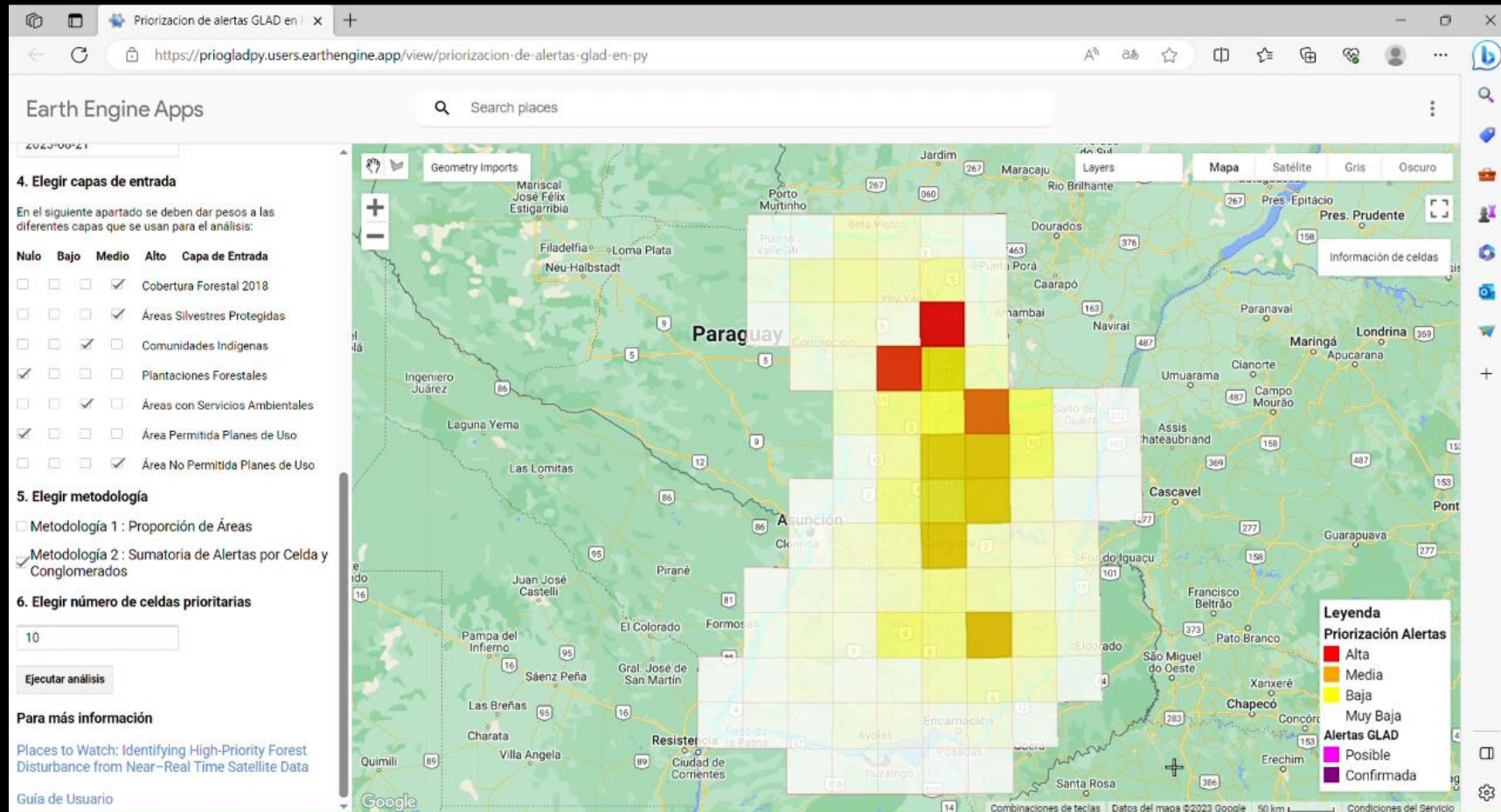
MAPBIOMAS

Platform with historical data of the Atlantic Forest (1985 to 2021). Presents annual land cover and land use maps for Argentina, Brazil and Paraguay.



FIRE PLATFORM FOR HOTSPOTS AND RISK POTENTIALS

Spatial prioritization of GLAD deforestation alerts in Paraguay



Priorización espacial de Alertas GLAD en Paraguay

GLOBAL FOREST WATCH Donante

WWF Implementador

INSTITUTO FORESTAL NACIONAL Socio estratégico

AREAS OF INTEREST FOR FUTURE ACTIVITIES

There is a lot to cover for the future, to mention some:

- The need for an in-depth study of the local climate shifts and the effects of deforestation to model future scenarios.
- Focus on change detection for land use and land cover, and particularly, for ecosystem degradation, fires and burned areas, floods and water surface and their alert systems.
- Natural resources studies with remote sensing and geoinformatics using computer coding like artificial intelligence, need to be prioritized for the future.
- And, access restrictions to very high resolution data sources will continue to limit the development of better monitoring systems.



COLLABORATORS

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Gracias!
Aguyje!
Thank You!



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