



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

Grassland and Savannah Conservation and Management – Policies and Practical Approaches

The Paraguayan Pantanal, Lessons Learned from the field

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*Petersen I., Rincón, S., Roche, P., Delphin, S., Mongelós, M. Garay,
M. Gill, M., Duarte, C., Pedrozo, A. Aquino, L., Fliervout, F.,
Cubilla, G., Fleckenstein M., Garay, M., Rodas, O., Rivarola, R.,*

+Consultants: DLR, ONG AGUA, National University, etc.

+Governments Institutions National and Municipalities

+Administrative teams in WWF PY, CO AND DE

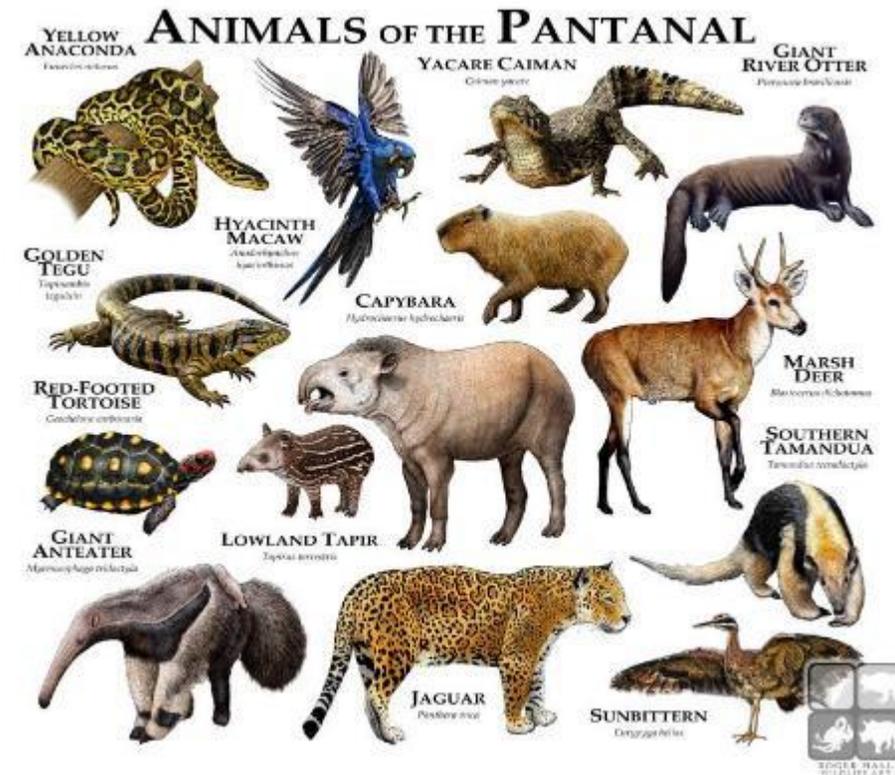
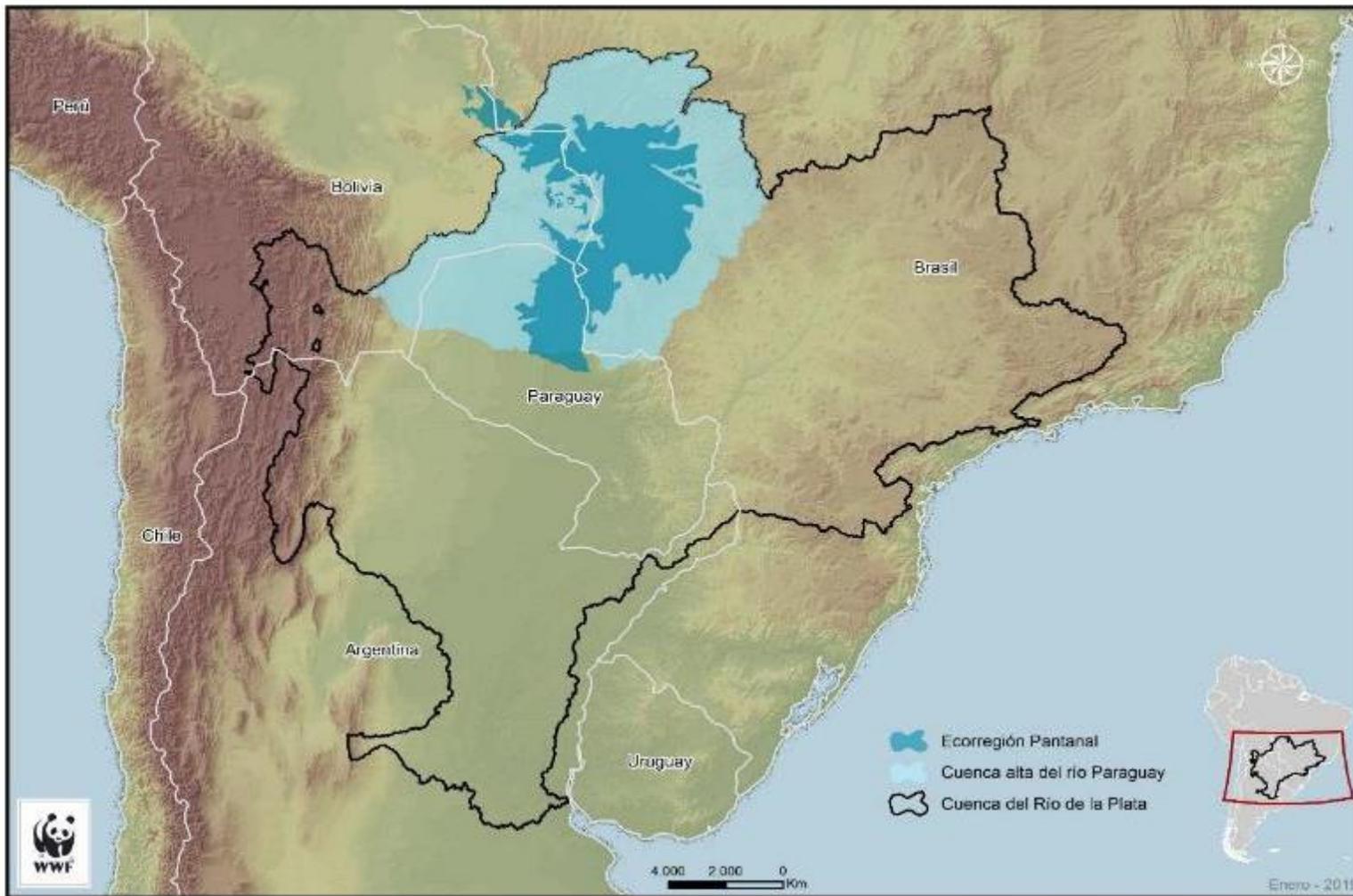
+Communities and ranchers

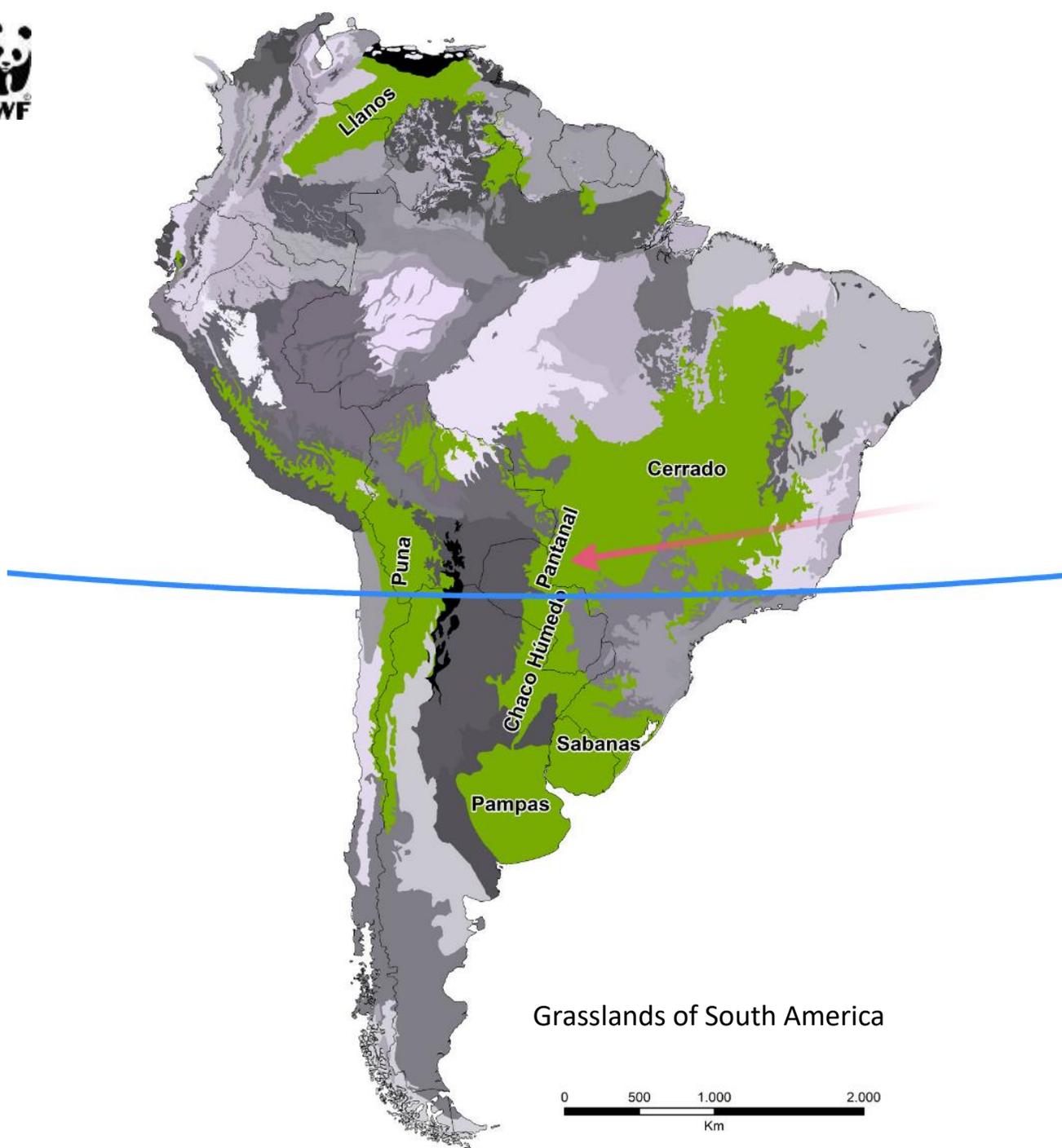
September 29, 2020

190.000 sq km wetland (deep blue)

60% of the upper La Plata River Basin (light blue)

Regulates flood pulse for more than 1.000.000 sq km (4 times the size of UK)





WATER SUPPLY



CLIMATE REGULATION



BIODIVERSITY

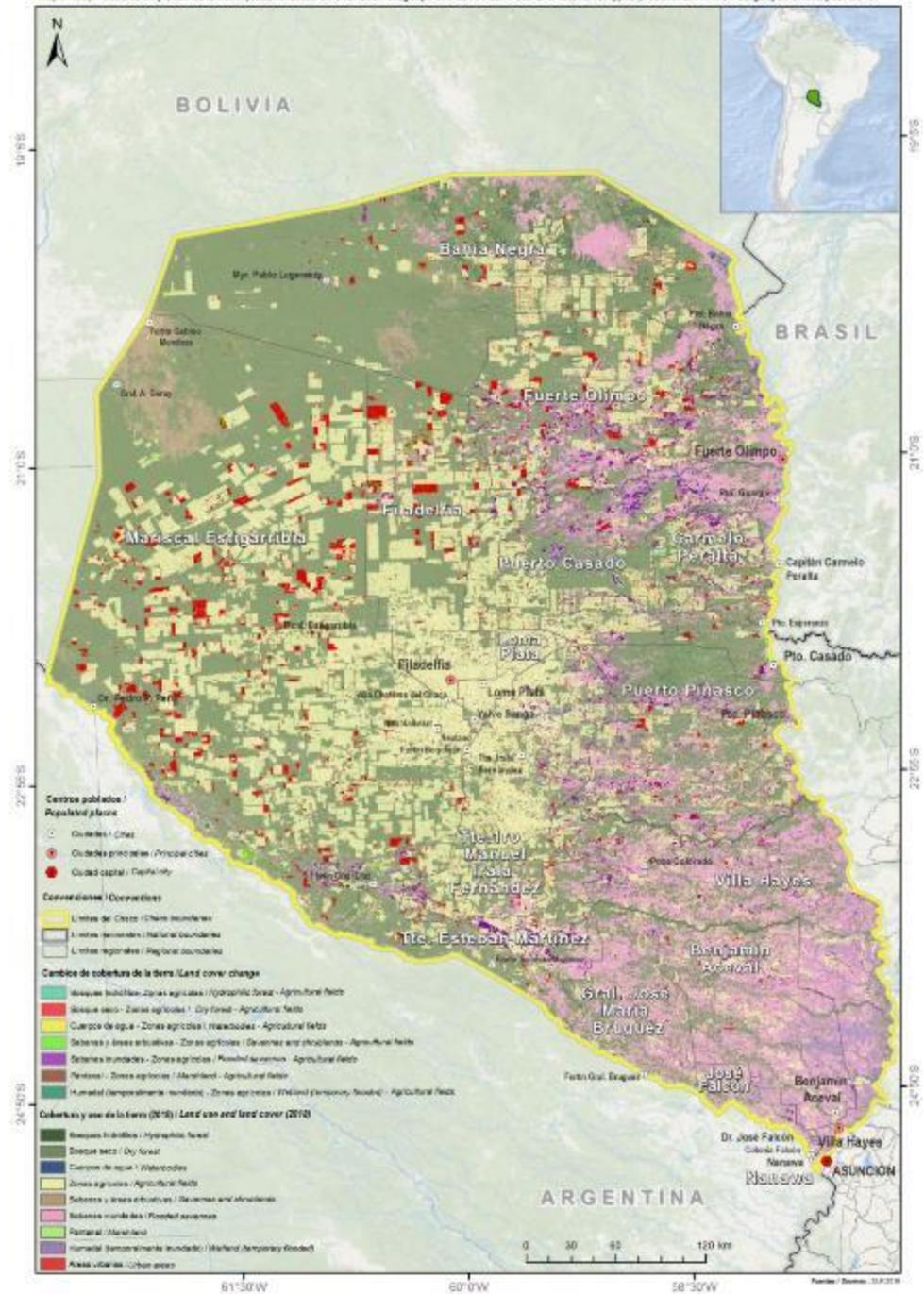


SOIL CONSERVATION

- **Largest** wropical wetland in the World.
- Three countries: Paraguay, Brazil and Bolivia
- Savannah-dominated landscape connecting: Cerrado, Chaco, and Pampas (the wáter of the Pantanal also comes from the Chaco and the Cerrado)
- More than **4.700** species of plants and animals
- Floodplain maintains some **80 %** percent of its native vegetation

Drivers of change





Cobertura y uso de la tierra / Land use and Land Cover

Tipo de cobertura de la tierra / Land cover type	Superficie total de cambios de coberturas de la tierra a campos agrícolas / Total area of land cover changes to agricultural fields	
	km ²	%
Bosques secos / Dry Forest	6.772,25	50,91
Sabanas inundadas / Flooded Savannas	5.286,87	39,74
abanas y áreas arbustivas / Savannas and shrublands	470,76	3,54
Humedal / Wetland	463,19	3,48
Bosques hidrófilos / Hydrophilic Forest	277,73	2,09
Cuerpos de agua / Water bodies	22,03	0,17
Pantanal / Marshland	9,92	0,07

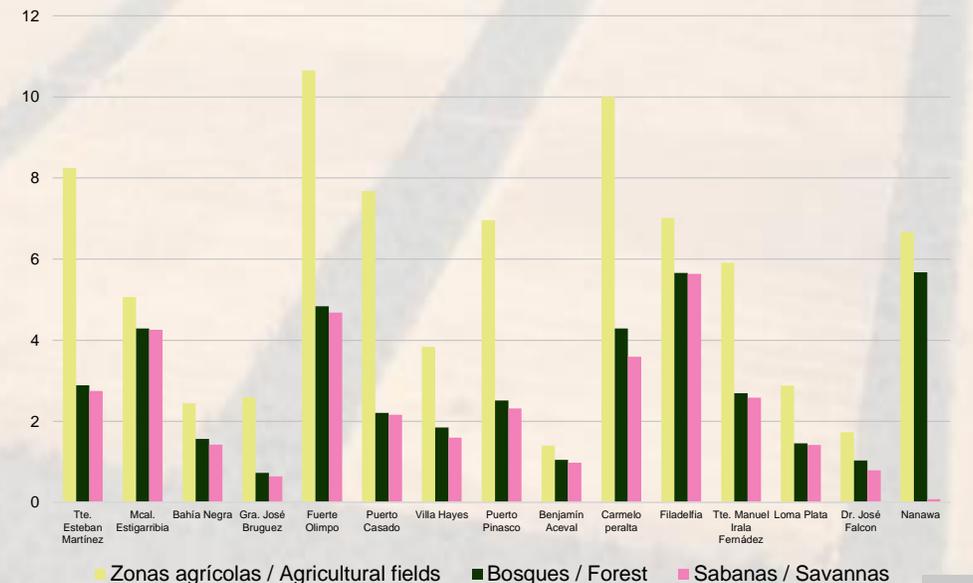
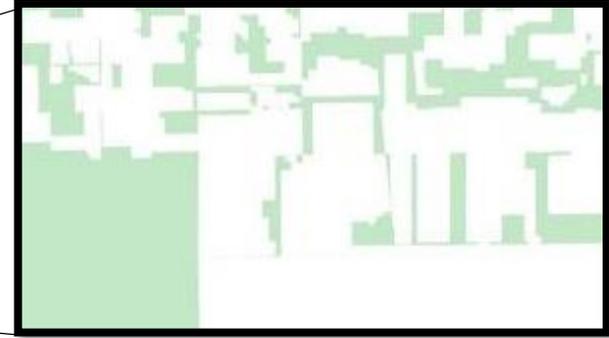
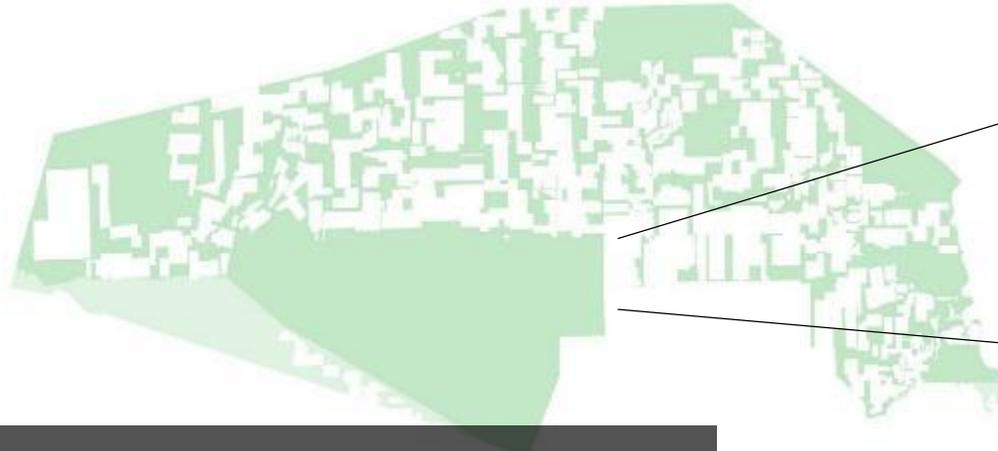


Figura 10. Distribución relativa de cambios de coberturas de la tierra por distrito

Grassland and Savannah Conservation

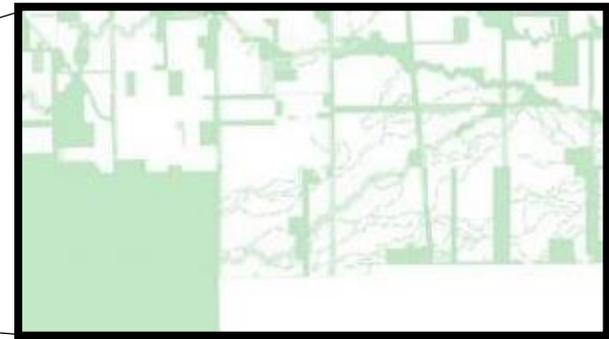
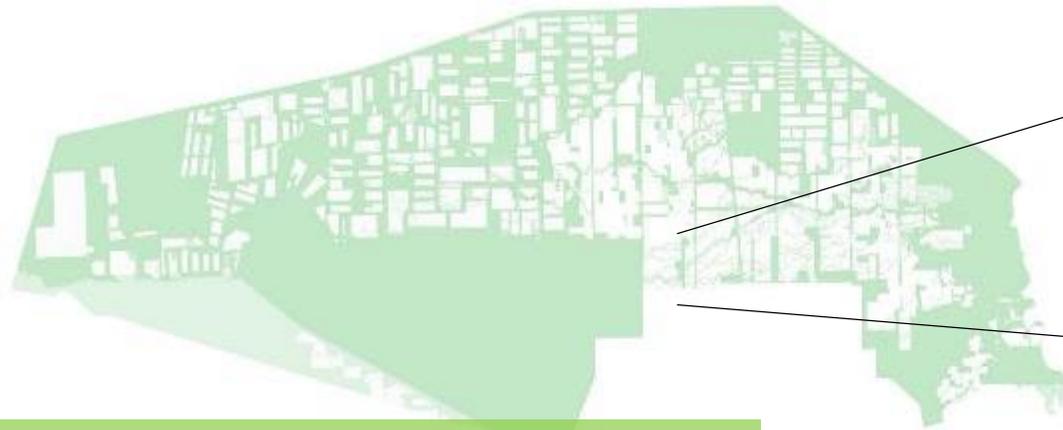


Land Use Planning



Área de producción agropecuaria
Áreas naturales (bosque, matorral, páramo)

Escenario futuro - Tendencia actual



Área de producción agropecuaria en riesgo
Área de producción agropecuaria
Áreas naturales (bosque, matorral, páramo)

Escenario futuro – Propuesta POUT

Bahía Negra in Paraguay (35,000 sq km)

Belgium is 30,689^[3] km²

Largest protected areas of the country (10,000 sq km)

Highest expansion rates of agricultural development

Presence of indigenous groups and uncontacted tribes, and only around 3000 inhabitants

Pantanal, Chaco, and Cerrado biomes and native grasslands

100% of the Municipality is located in the Chaco Biosphere Reserve (UNESCO): 50/50 law

Where?

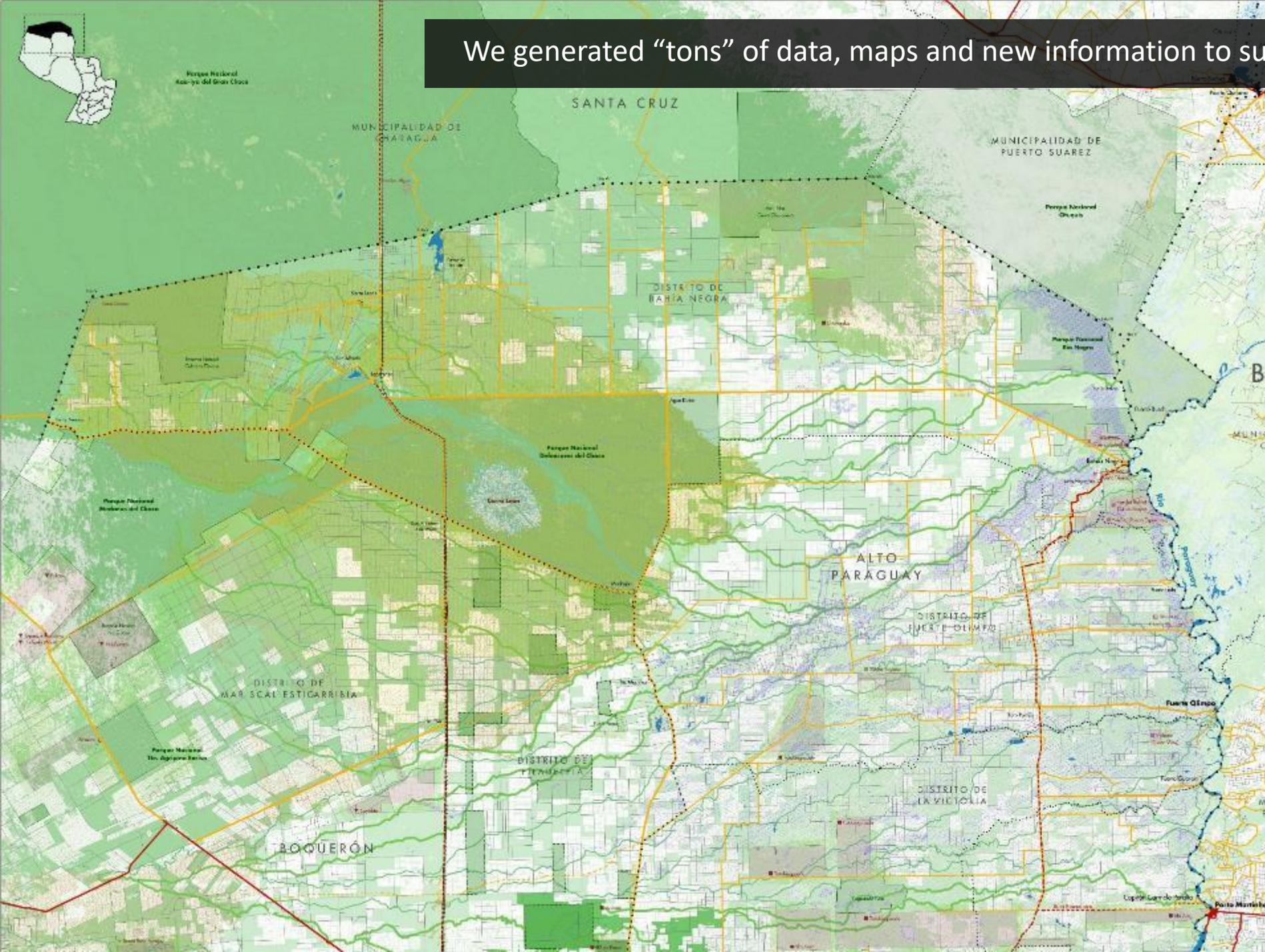




Multistakeholder Platforms
Free Prior and Informed Consent

Dialogue
Multiple Interests
Cattle Ranchers
Indigenous Communities
Government
Civil Society Organizations

We generated “tons” of data, maps and new information to support LUP, including savannahs



15 minute presentations for each one of these:

- Water Dynamics
- Salinization
- Indigenous communities
- Carbon stocks
- Land Use Land Cover
- Soils
- Erosion
- Recharge Areas
- Flood Prone Areas
- Protected Areas
- Biological Importance
- Singularity
- Ecosystem Services
- Cattle Ranches
- Individual Land Use Plans

Cattle Ranching in native grasslands



Best Management
Practices
Biodiversity
Sustainability
The challenge?

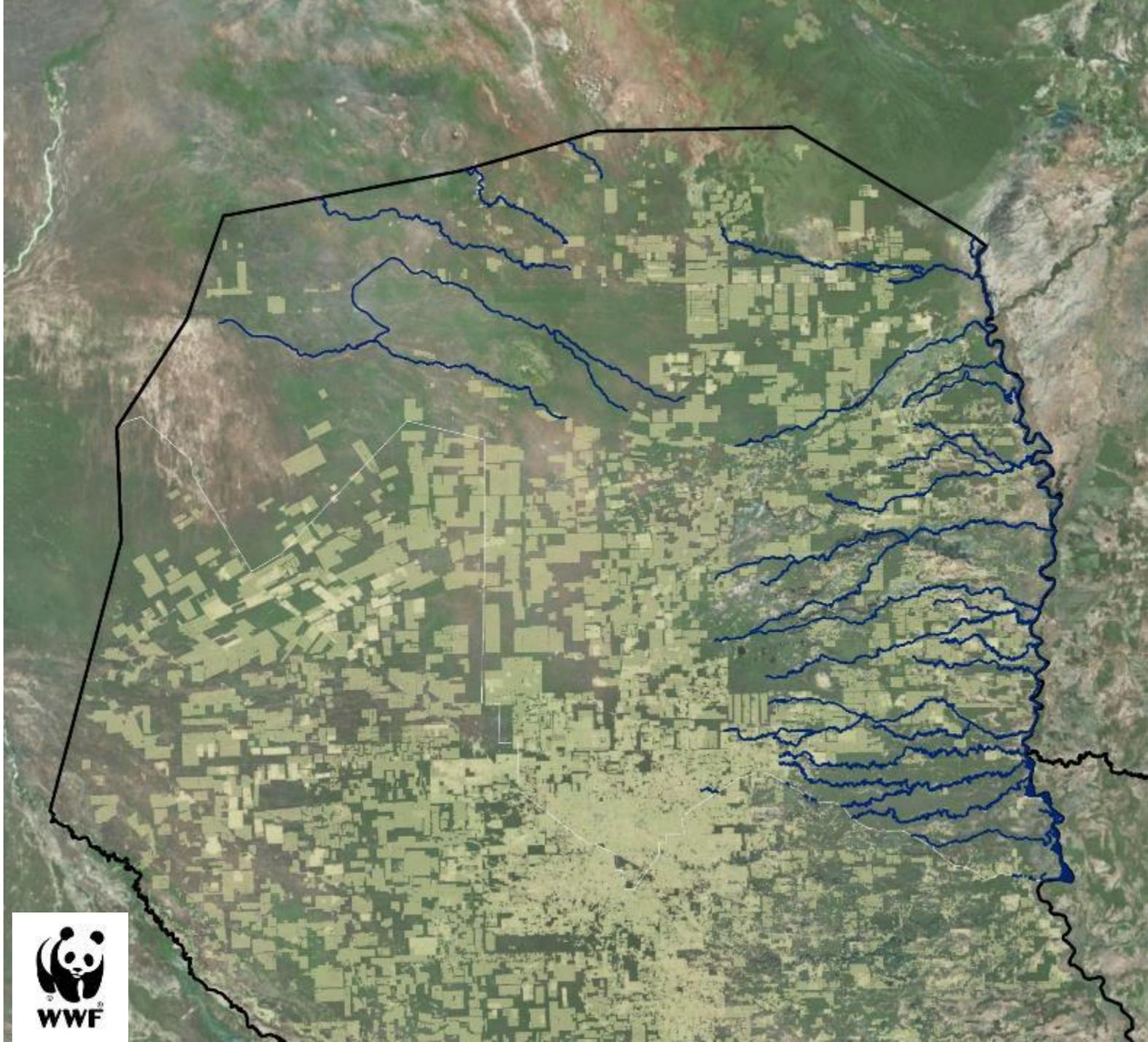
Focusing in capacity building locally and at universities



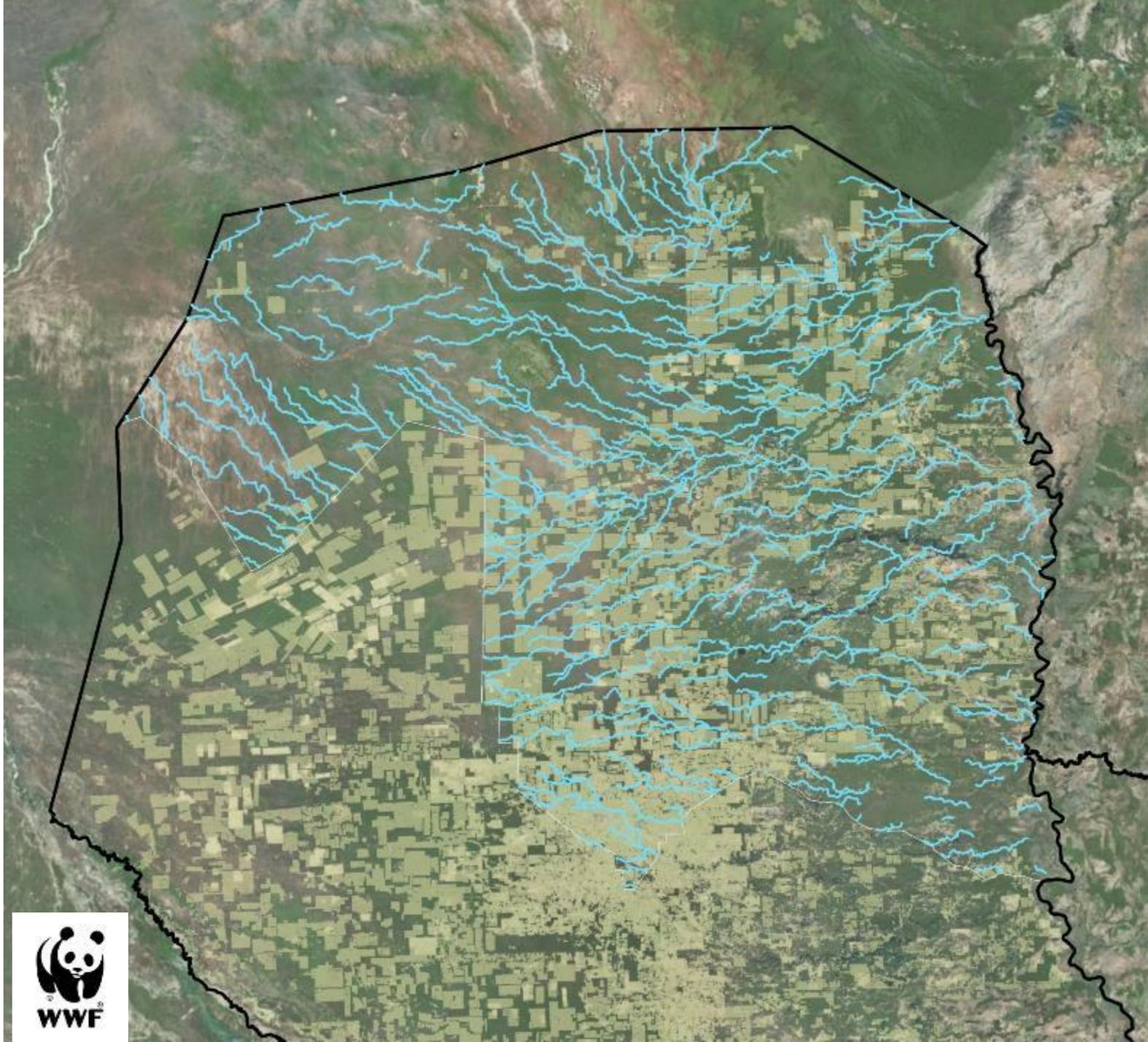


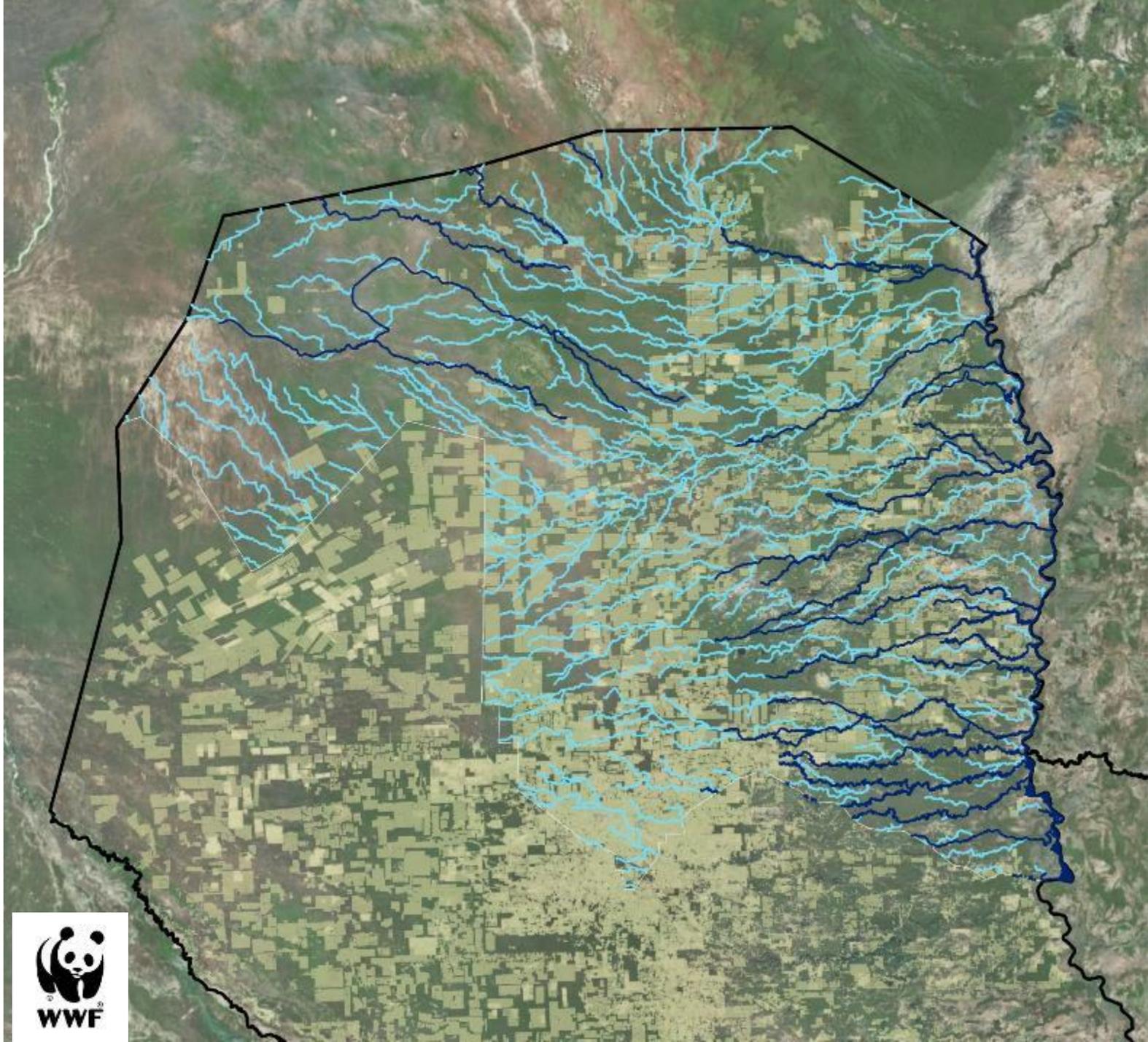
How did a Land Use Plan help me?



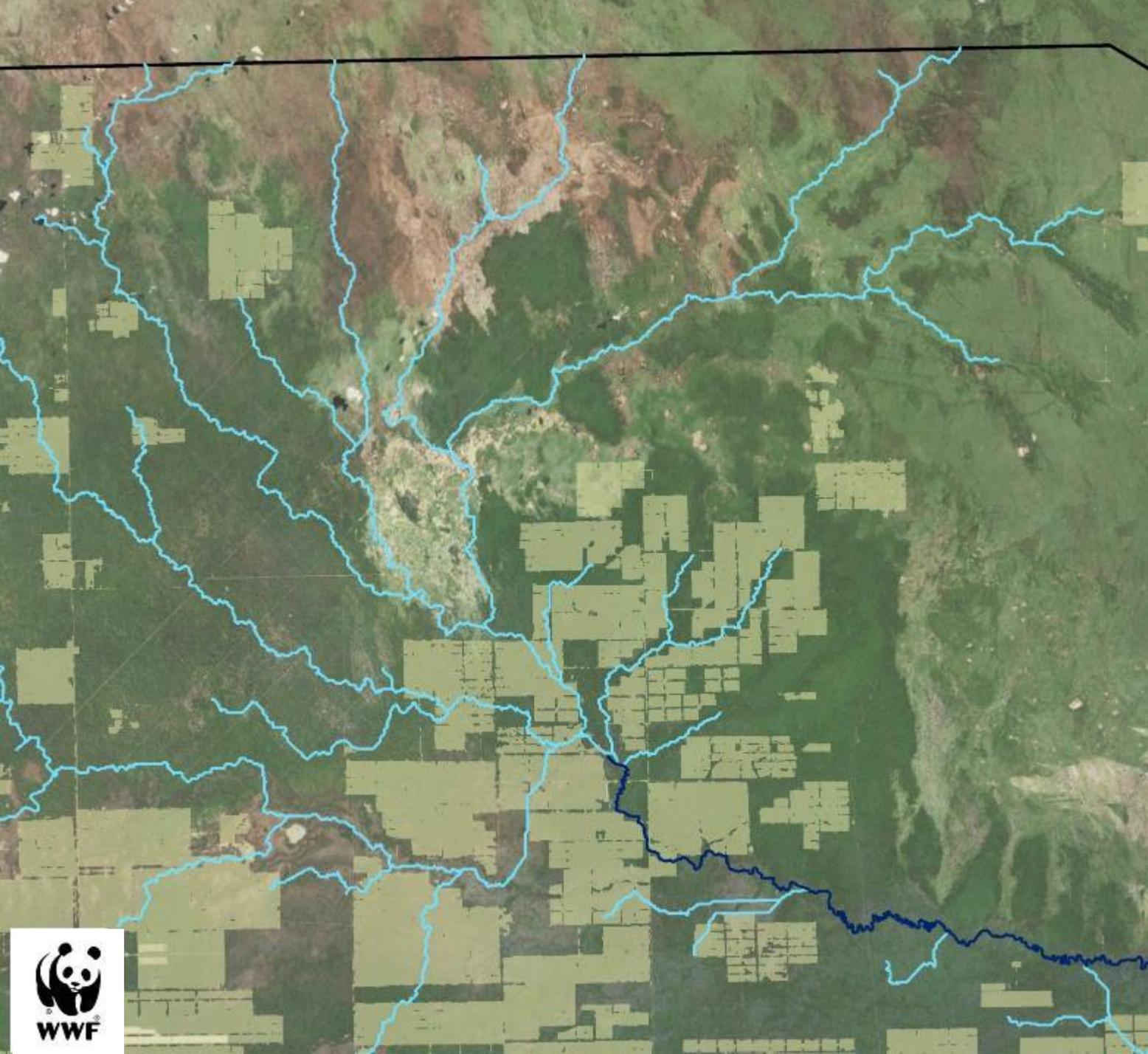


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CAPA DE INFORMACIÓN	Longitud (km)
Red de drenaje	13.707
Red hídrica oficial	5.671
TOTAL	19.378

CAPA DE INFORMACIÓN	Superficie (ha)
Red de drenaje (buffer 100m)	272.110
Red hídrica oficial (buffer 100m)	112.557
TOTAL PROTEGIDA	384.667



SULU

LAND USE CHANGE IN
SAVANNAHS AND
GRASSLANDS

APPROACHES BY POLICY ENGAGEMENT, LAND USE PLANNING
AND BEST MANAGEMENT PRACTICES

Thank you!

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