

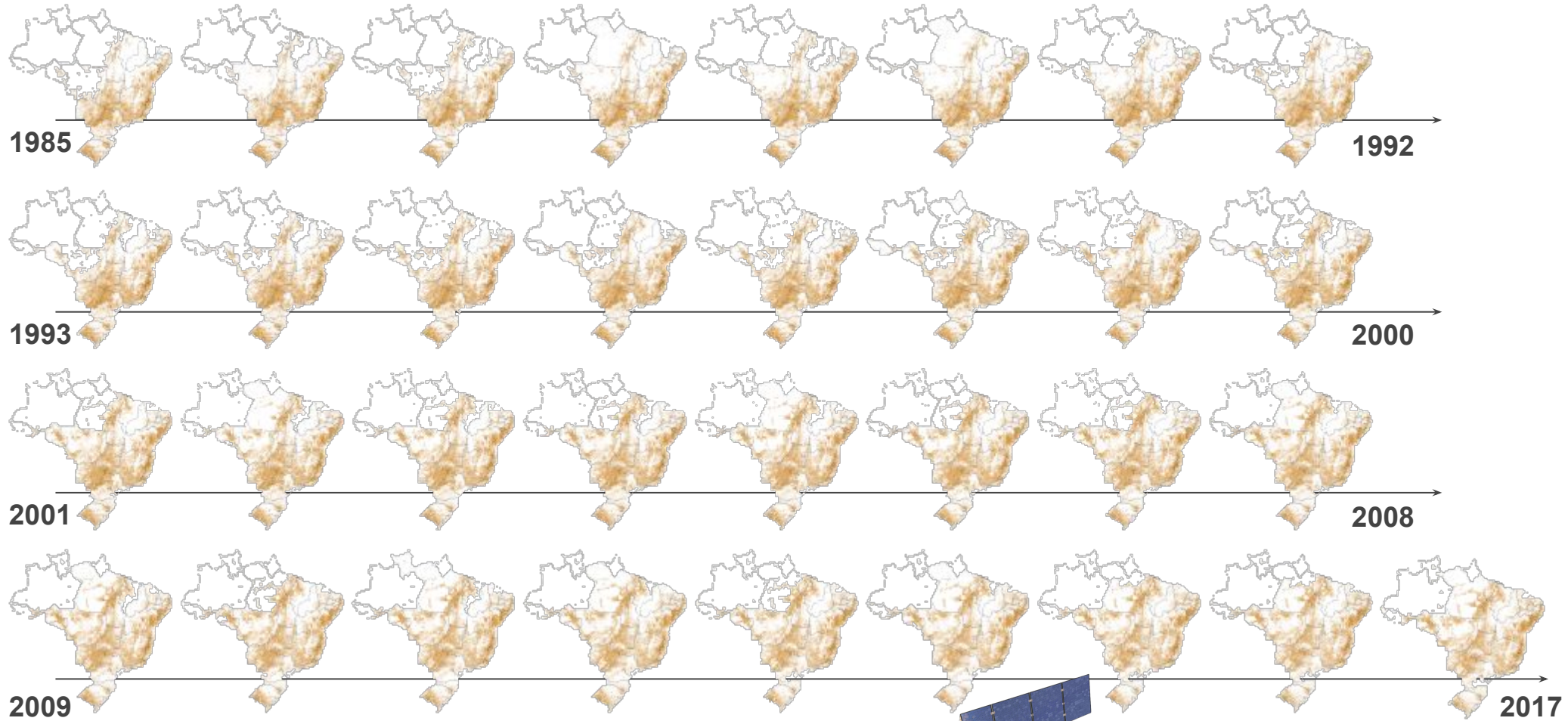


Pasturelands in Brazil

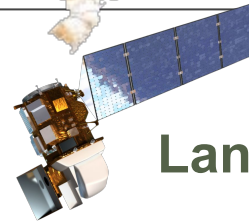
“The Available Land-Reserve”

Laerte Ferreira

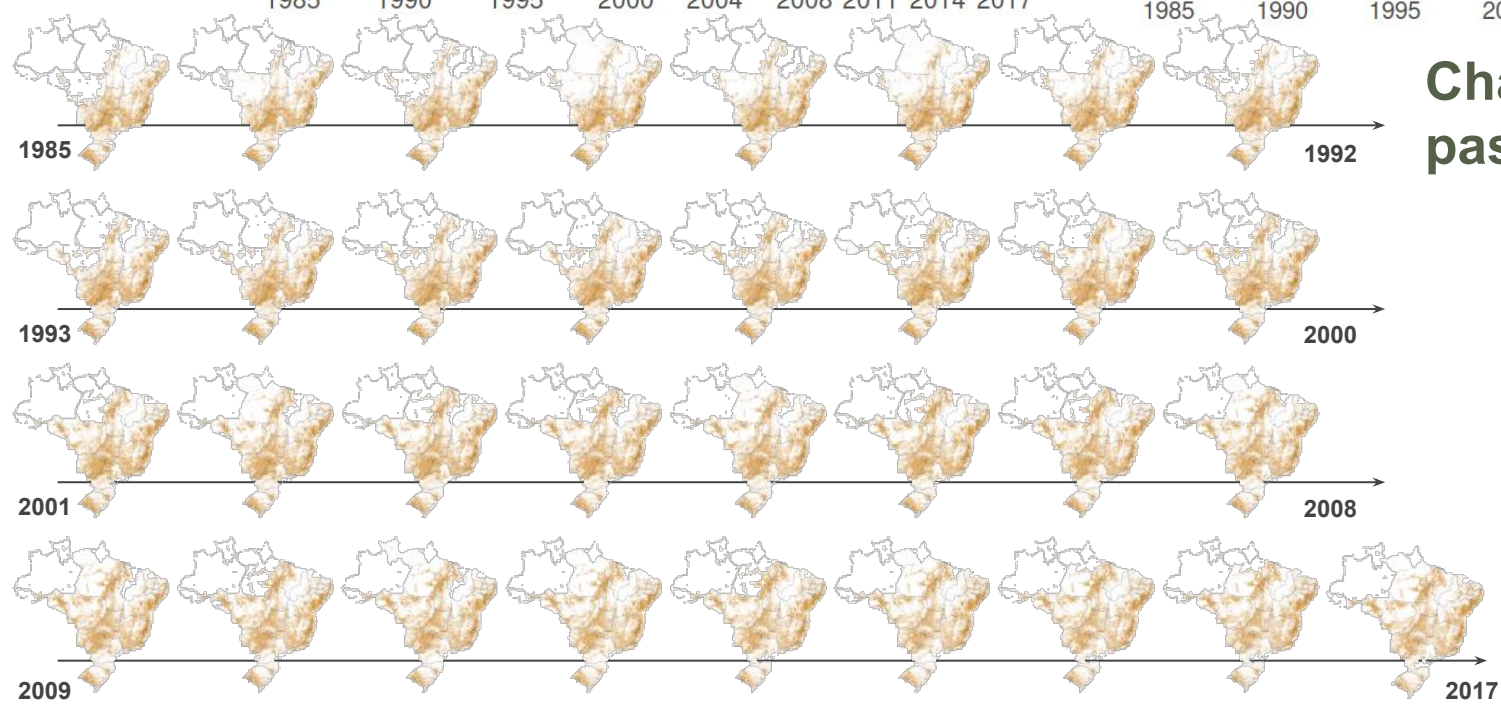
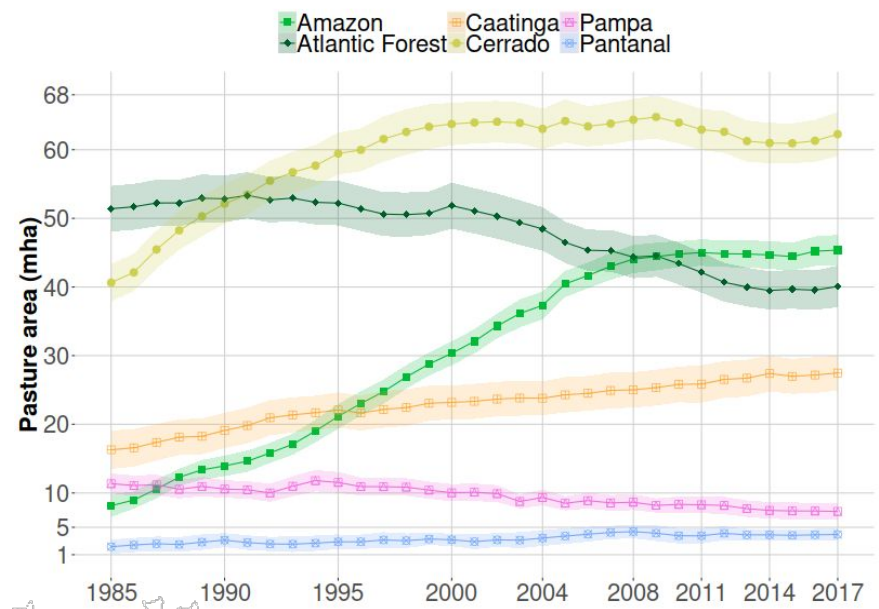
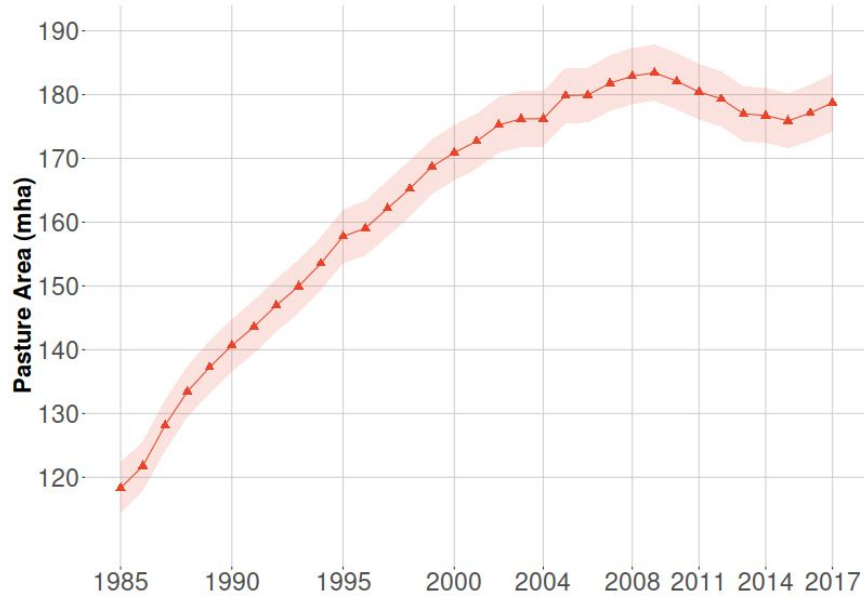
What has been our focus?



33 Pasture Maps
(~90% of overall accuracy)



Landsat based (30m)



Changes in the Brazilian pasture cover...



Results - Analysis

Old pastures
(without LULC-Change)



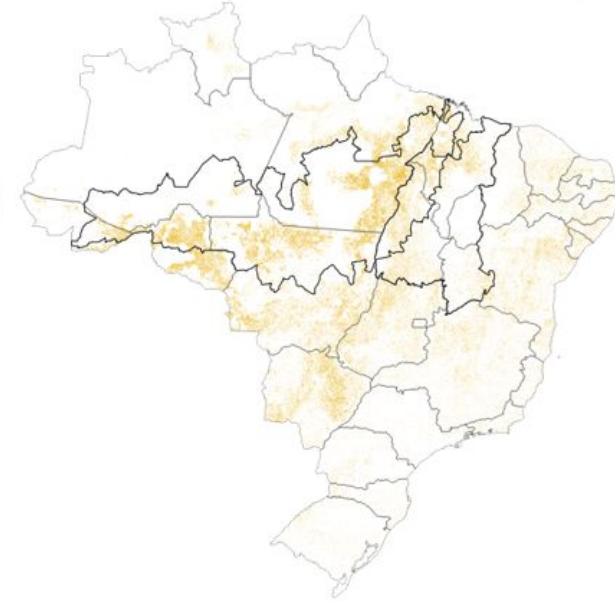
~52 mha

Old pastures abandoned/converted
(1 LULC-Change)



~27 mha

Pastures formed after 1985
(1 LULC-Change)



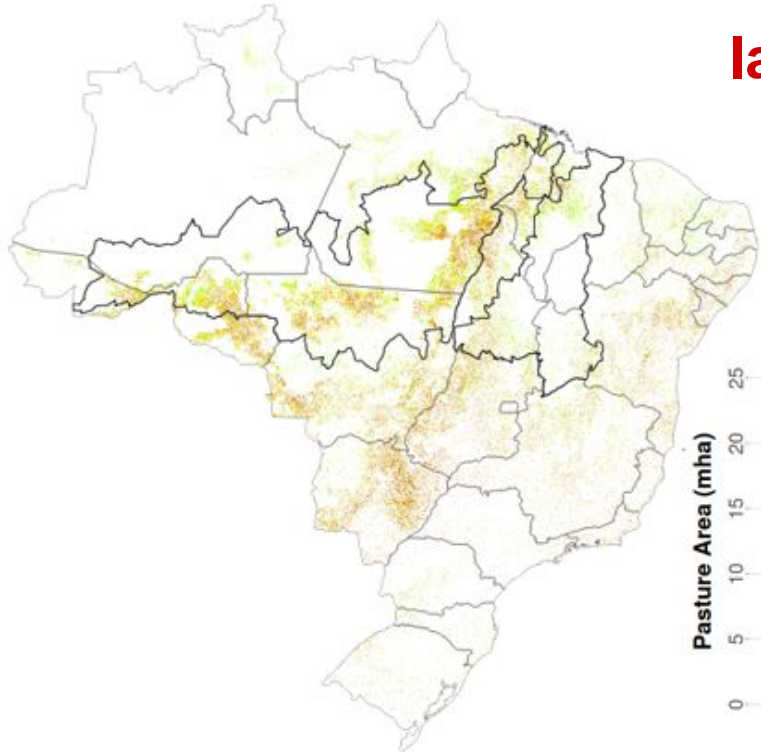
~66 mha

Pastureland Transitions

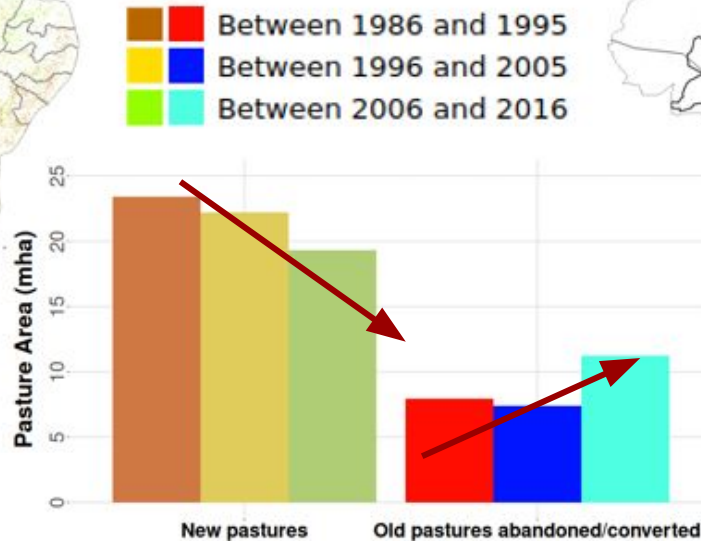
Temporal analysis (1 LULC-Change)



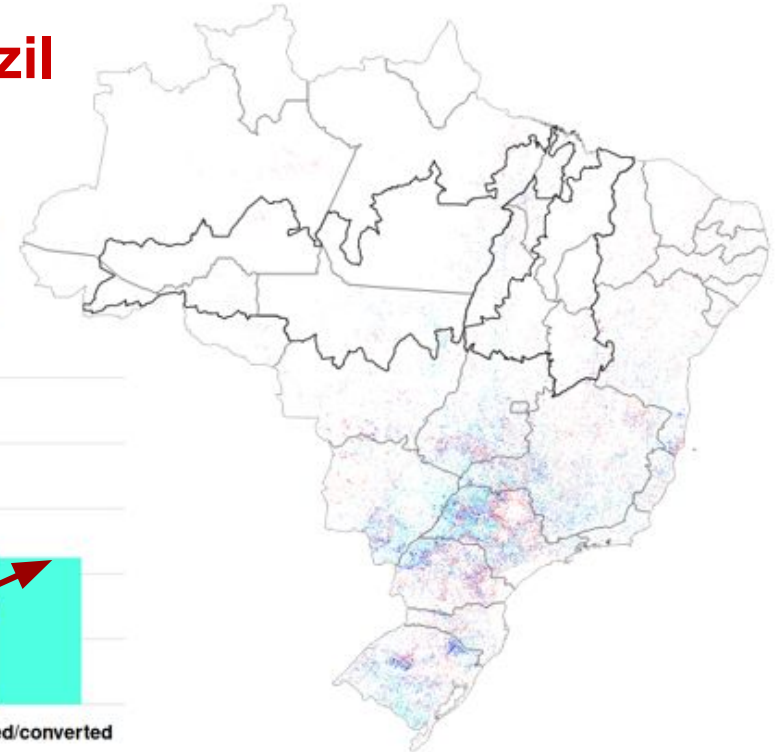
Pastures formed after 1985



**Pastures are the
land reserve of Brazil**



**Old pastures
abandoned/converted**



A better understanding of pasture transitions...

2007 - 2016

1997 - 2006

1986 - 1996

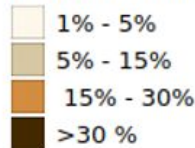
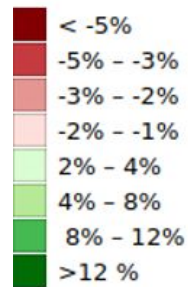


Logarithmic Rate of Return

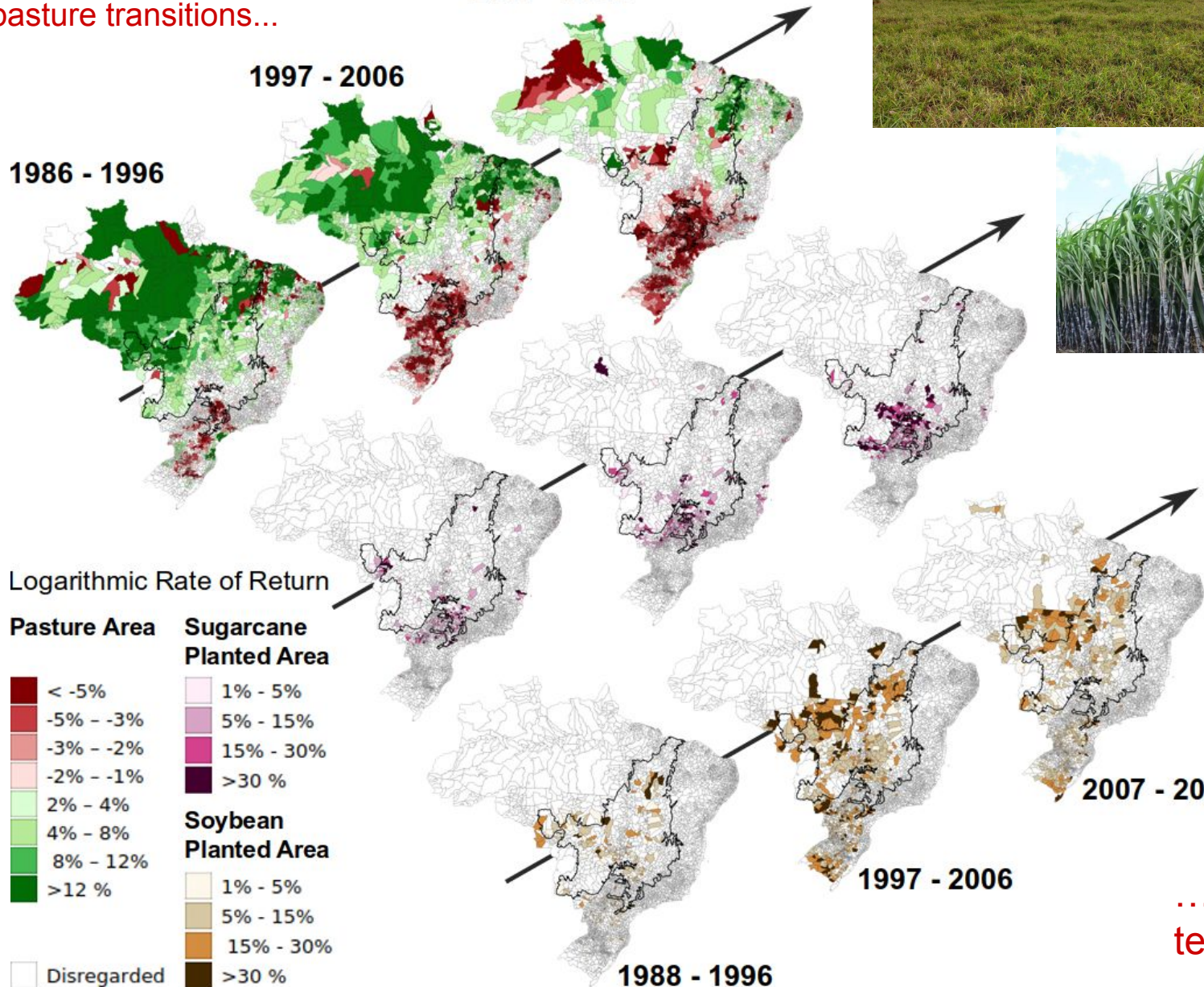
Pasture Area

Sugarcane Planted Area

Soybean Planted Area



Disregarded



2007 - 2015

1997 - 2006

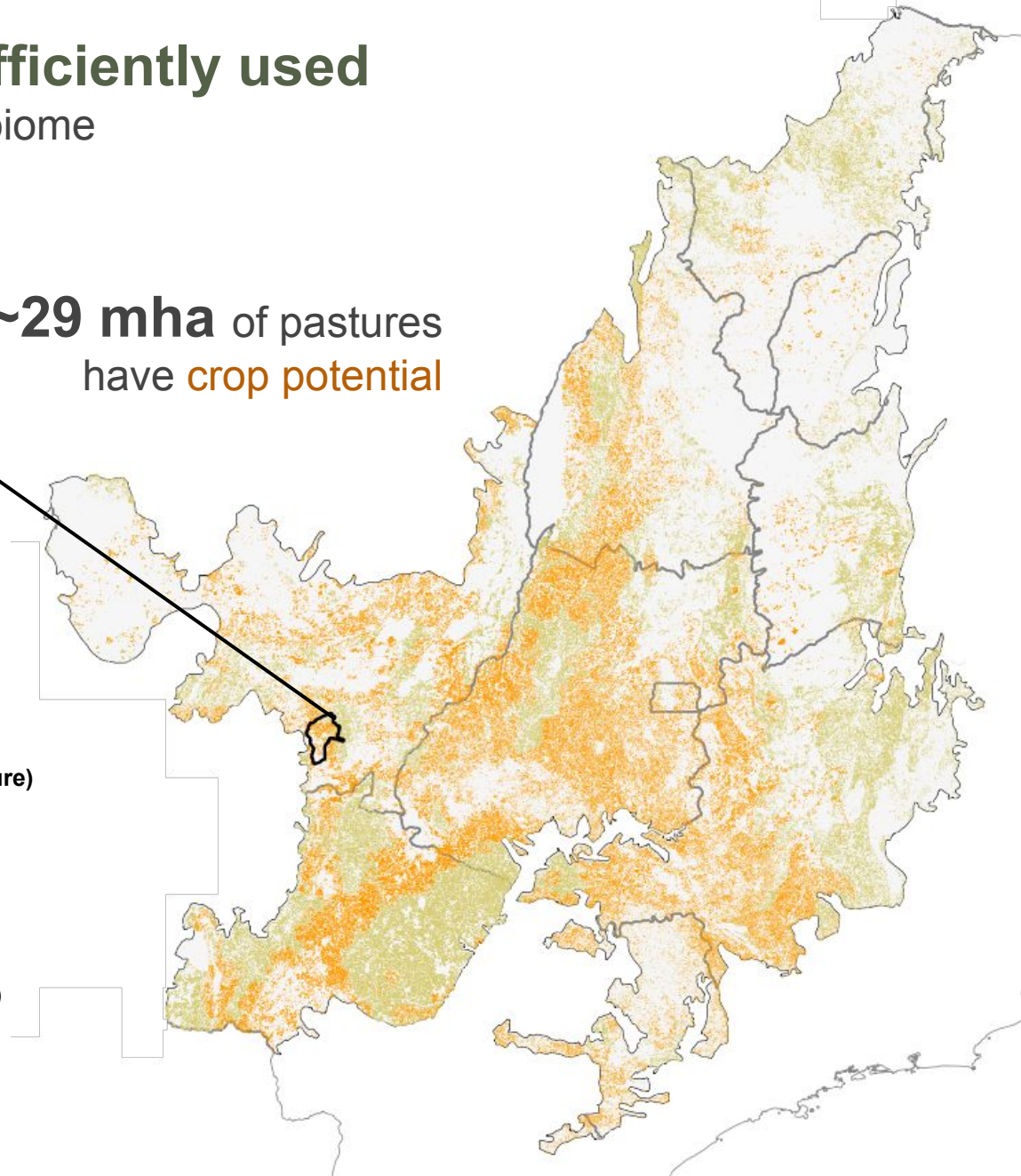
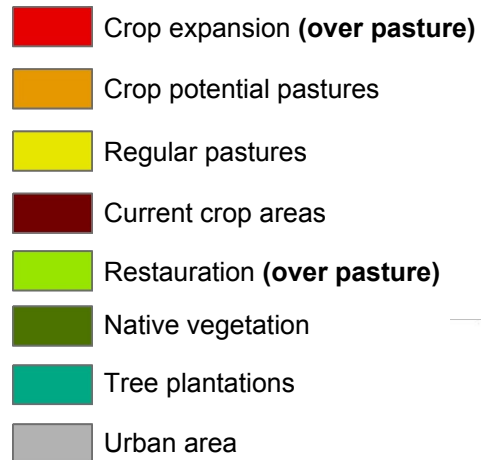
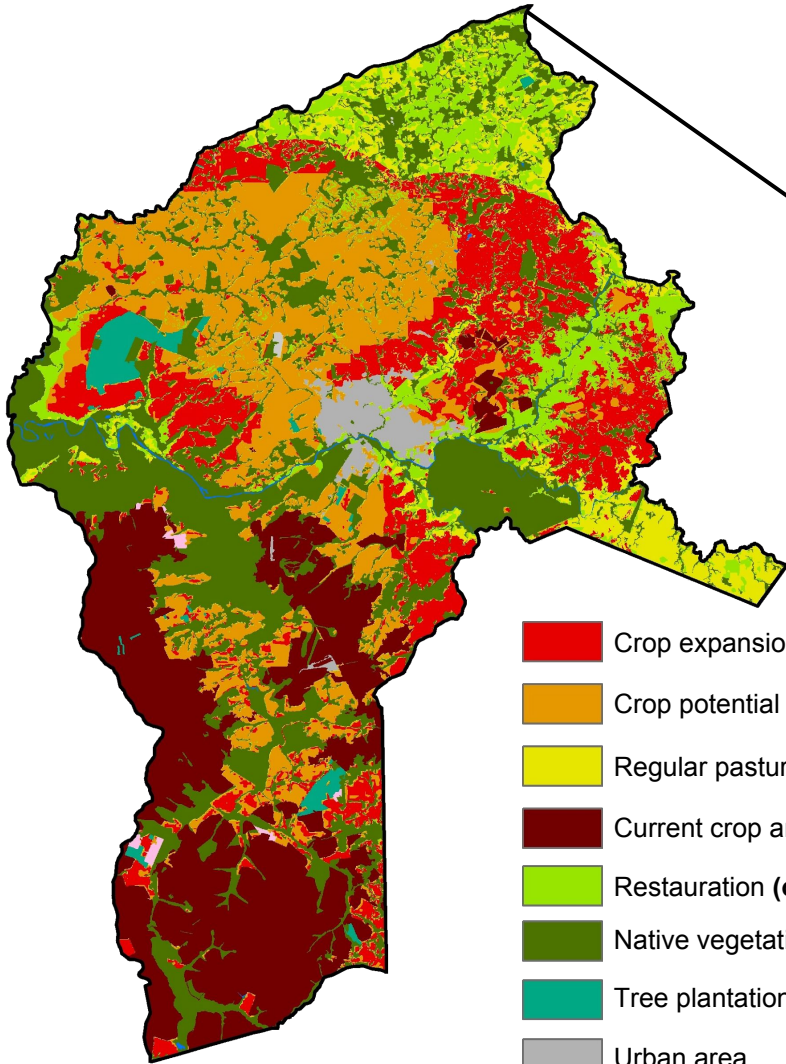
1988 - 1996

...promotes a better territorial governance

Pasturelands can be more efficiently used

... mainly in the Cerrado biome

~29 mha of pastures
have **crop potential**







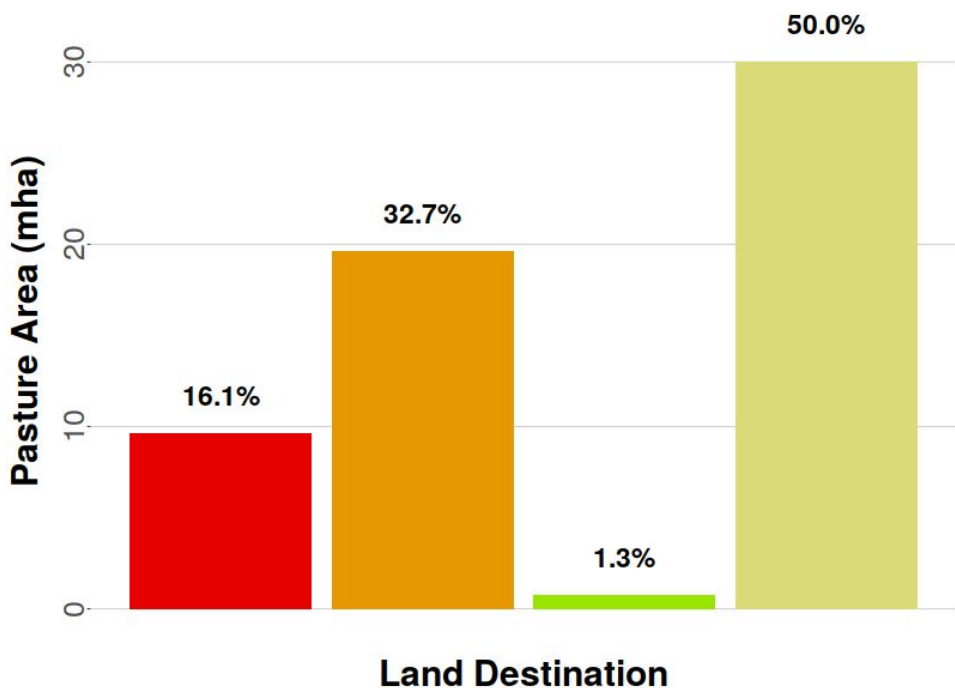
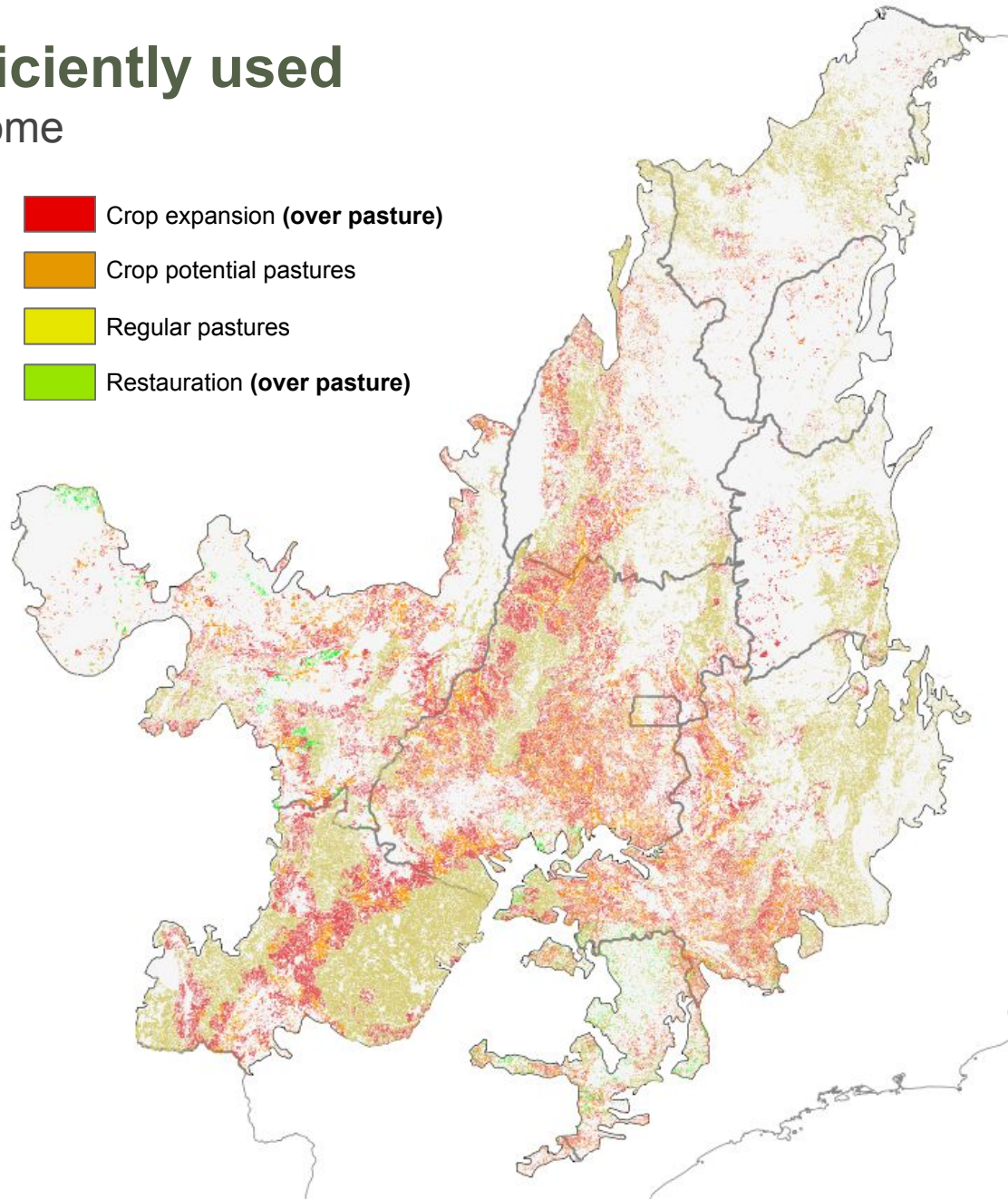
Pasturelands can be more efficiently used

... mainly in the Cerrado biome

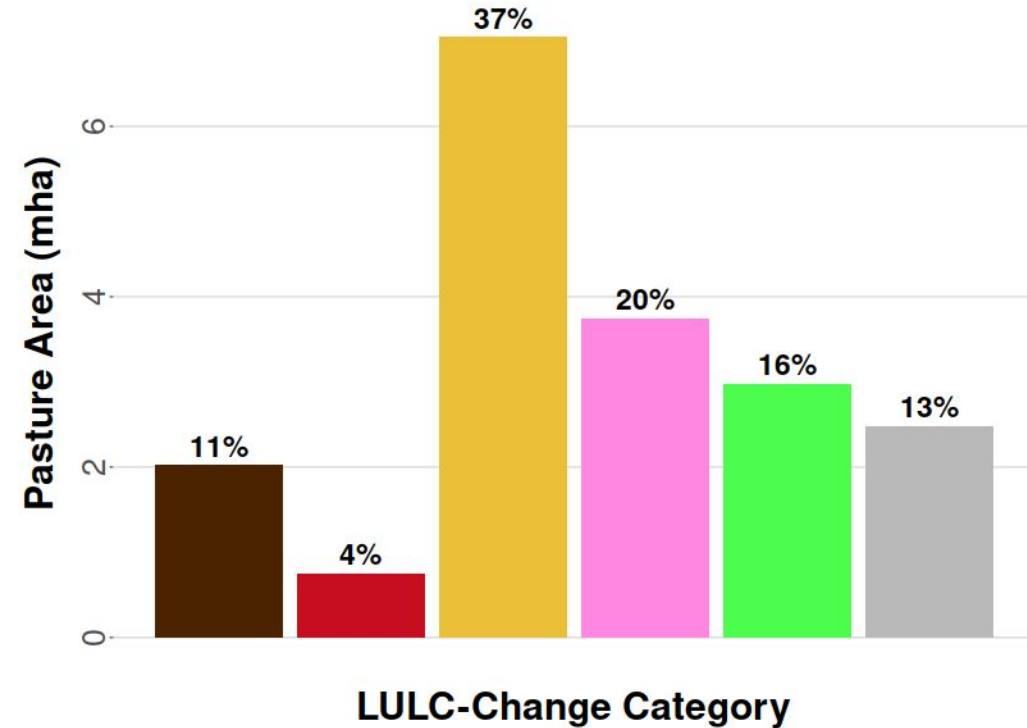
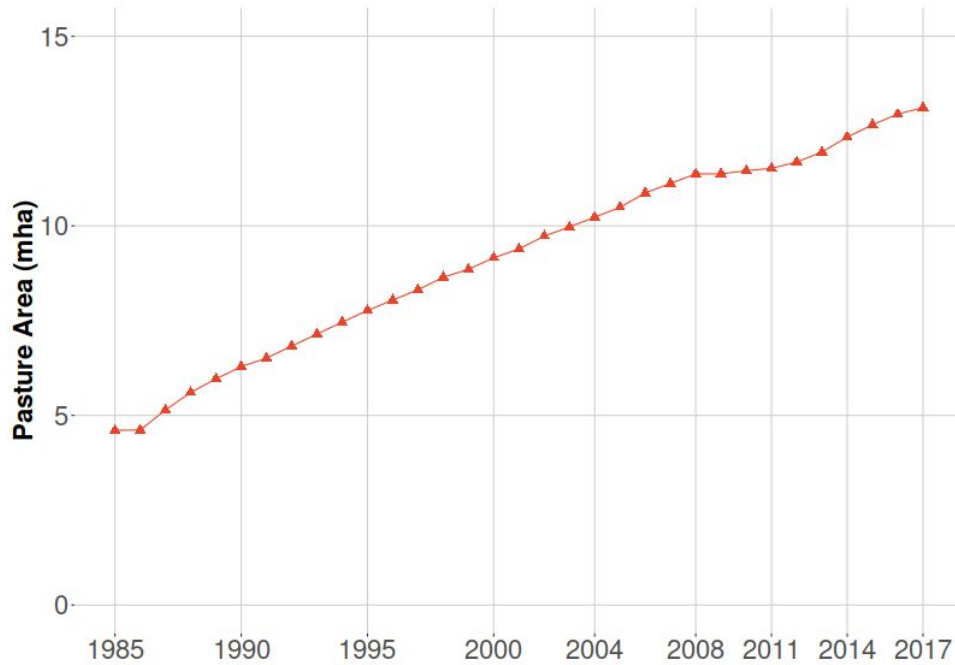
**We performed this model
for the entire biome**

(Spatially explicit result)

-  Crop expansion (**over pasture**)
-  Crop potential pastures
-  Regular pastures
-  Restoration (**over pasture**)



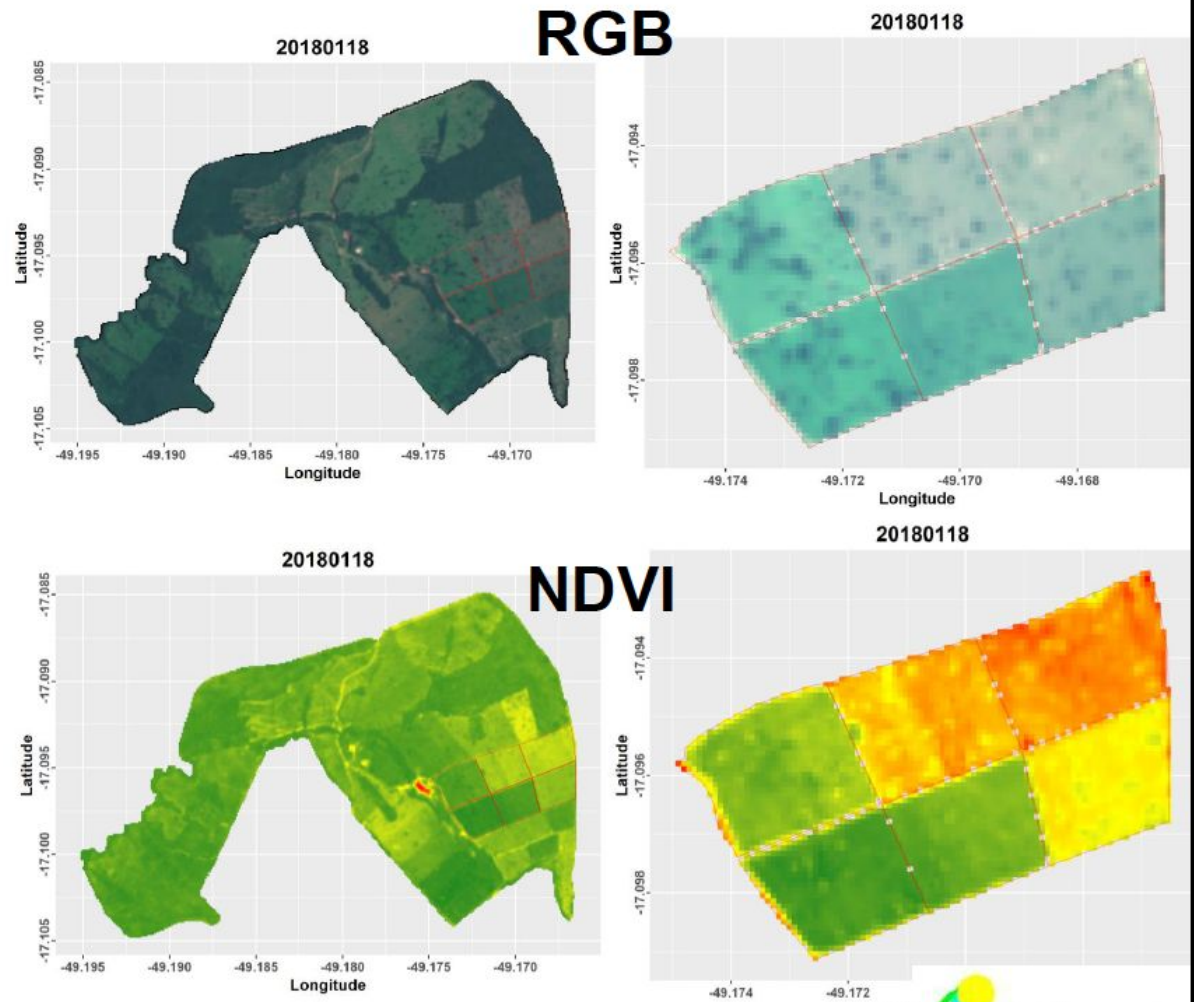
Pasturelands in the MATOPIBA region



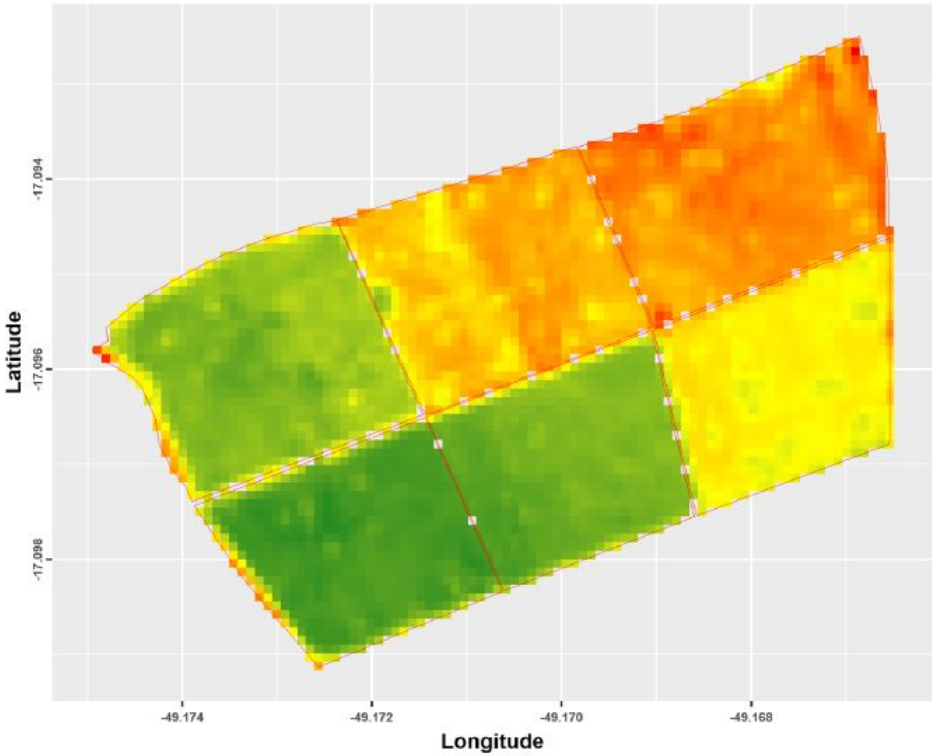
- Pastures with potential for crop replacement: **~4,07 mha**

Fazenda Eldorado

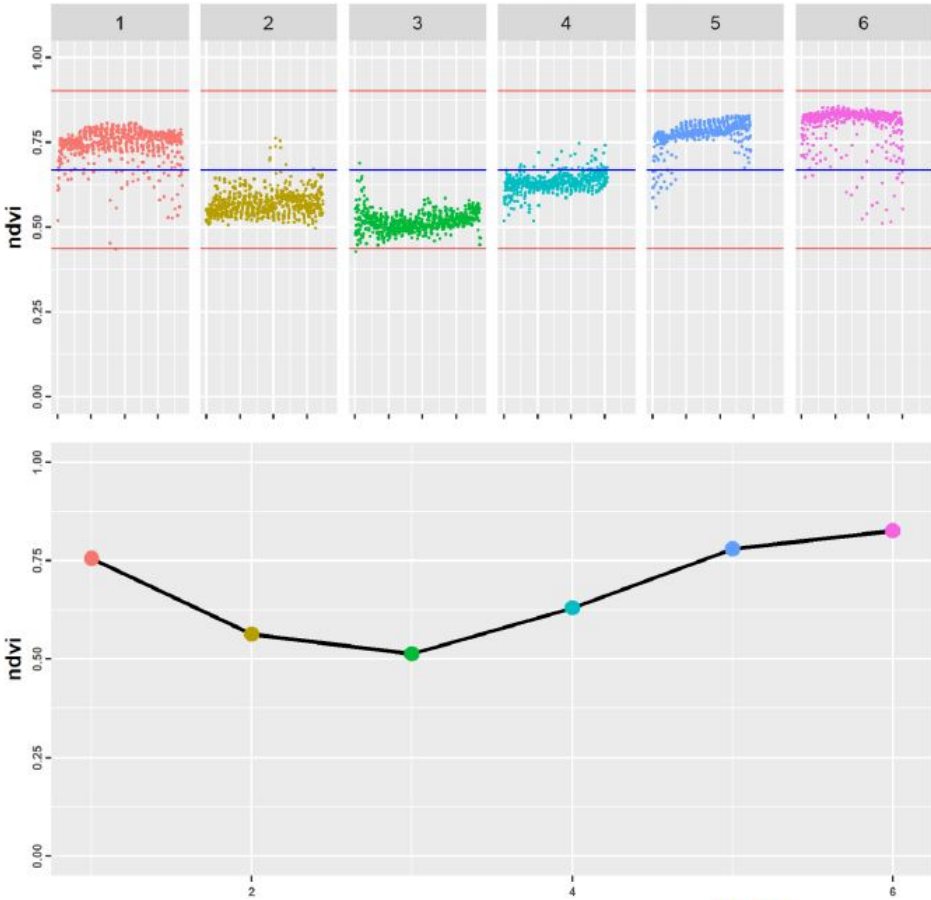
- Dados Sentinel (10 m de resolução);
- Áreas com diferentes respostas espectrais correspondem aos limites dos piquetes e áreas de vegetação nativa da propriedade;
- Com NDVI as diferenças são realçadas (obviamente);



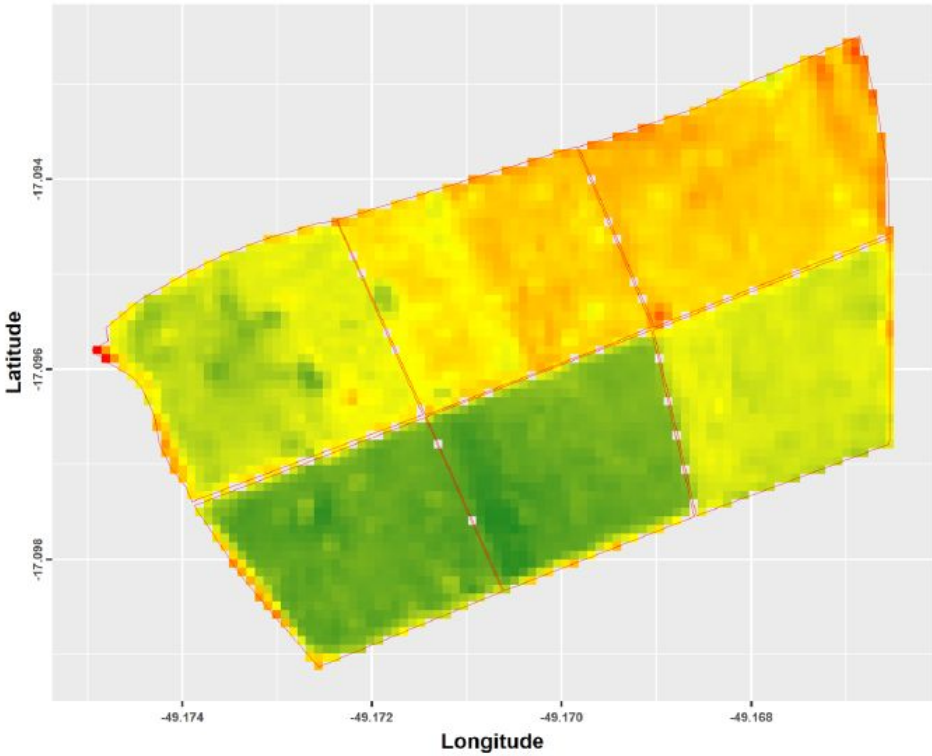
Fazenda Eldorado



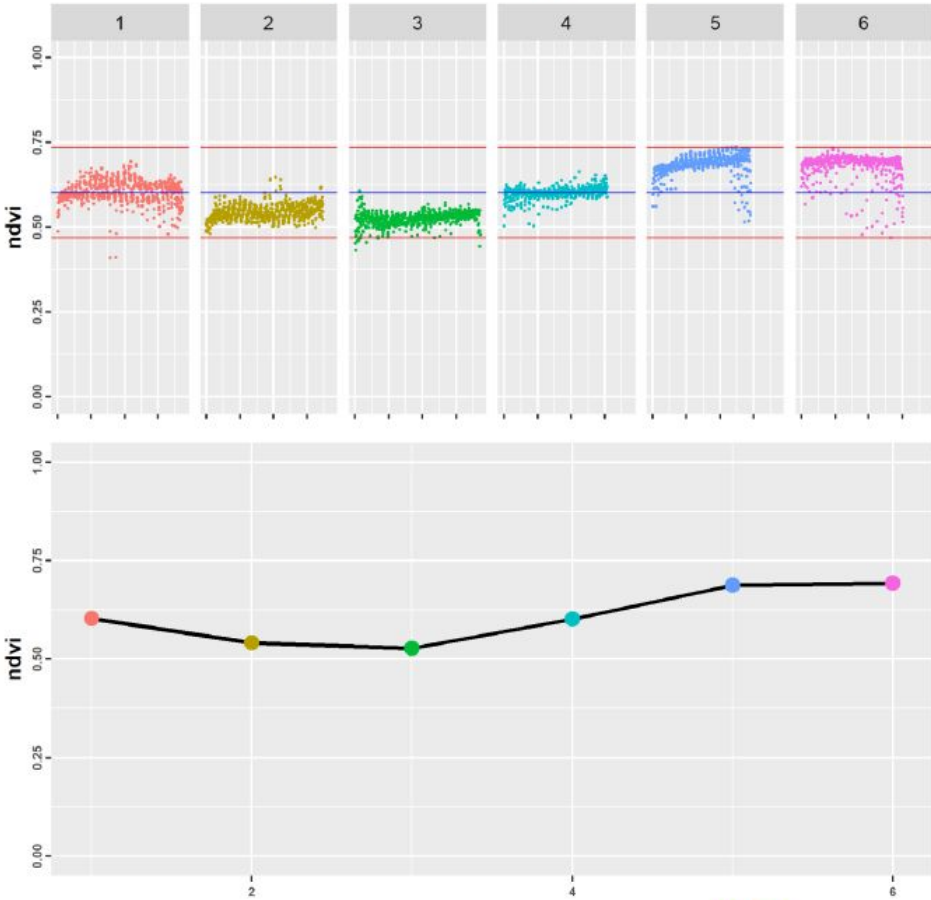
piquetes_modulo3_ndvi_20180118



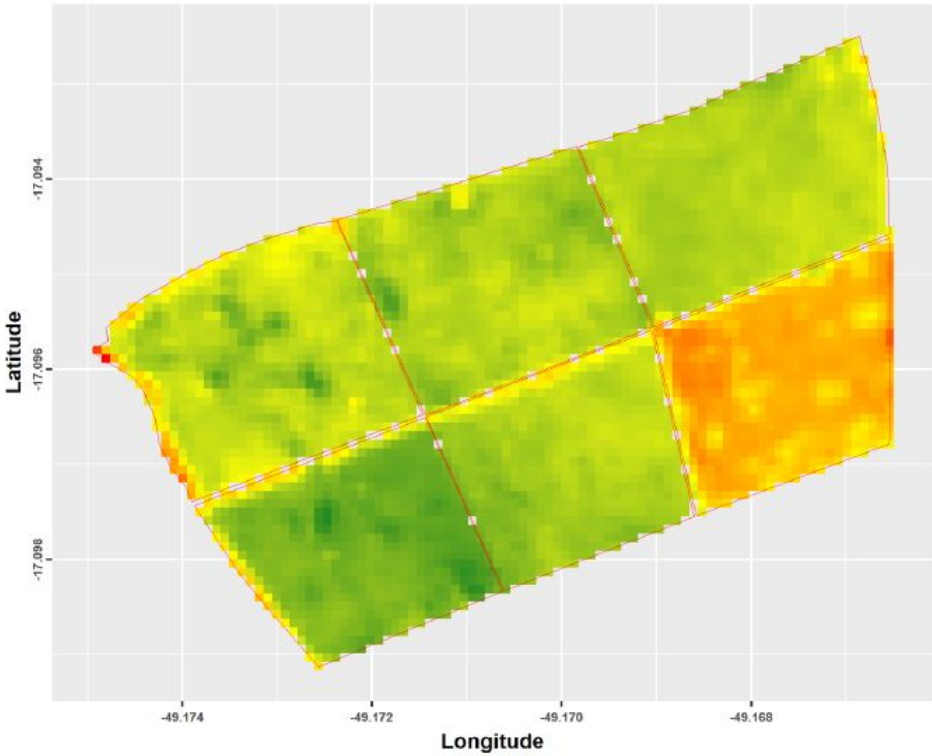
Fazenda Eldorado



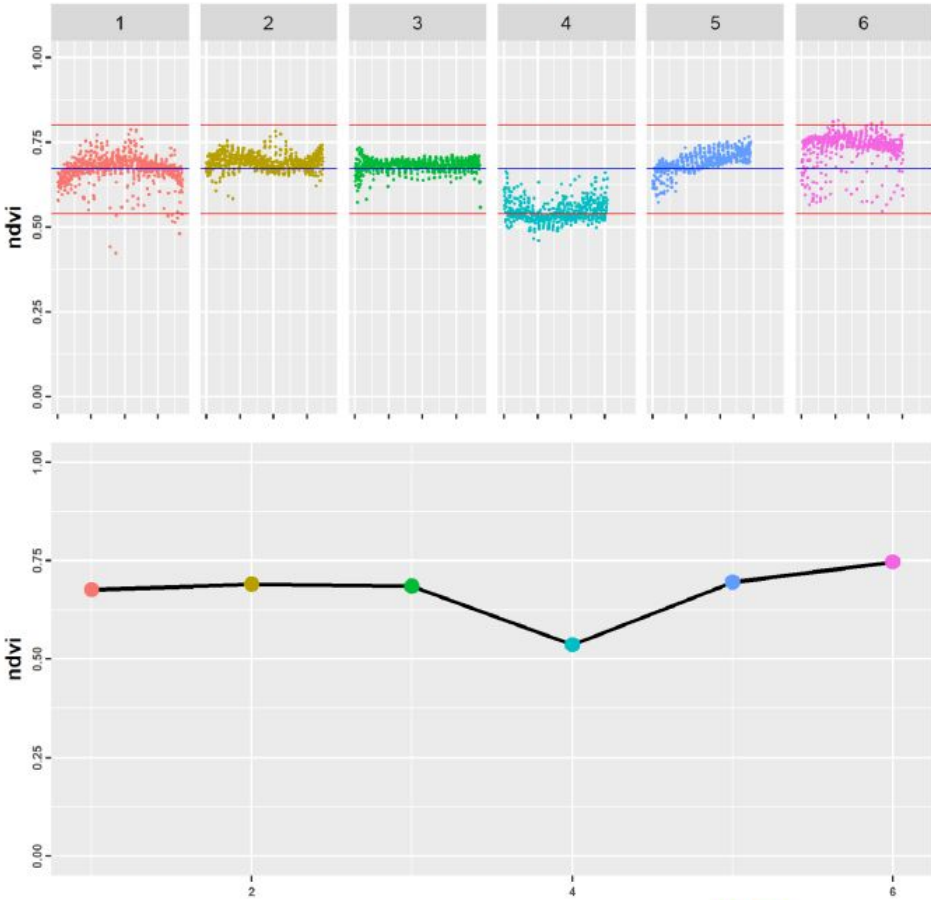
piquetes_modulo3_ndvi_20180123



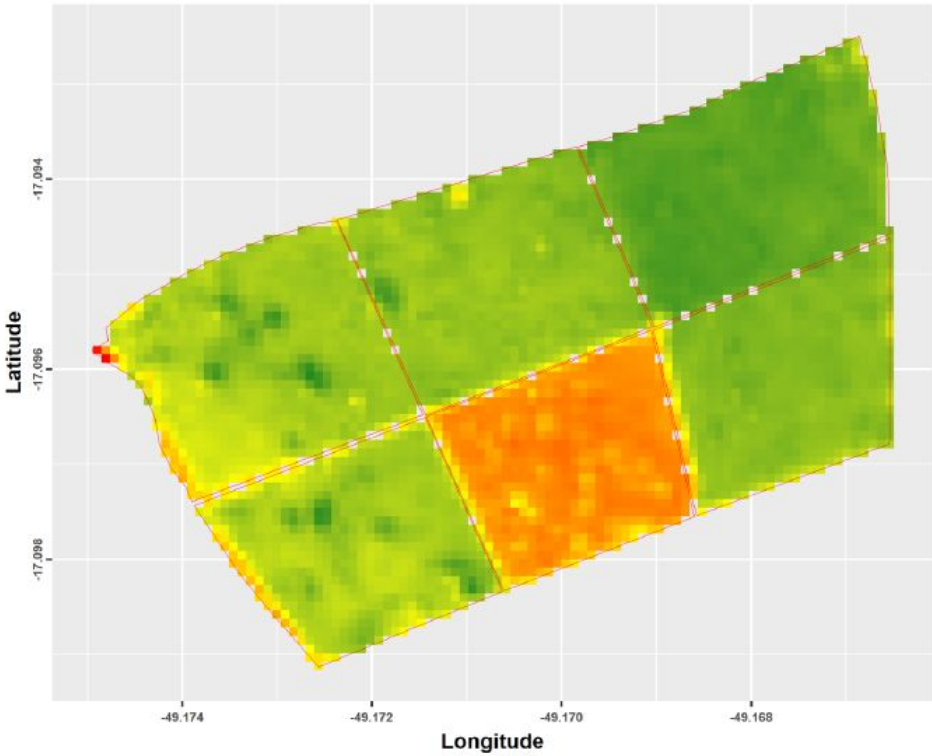
Fazenda Eldorado



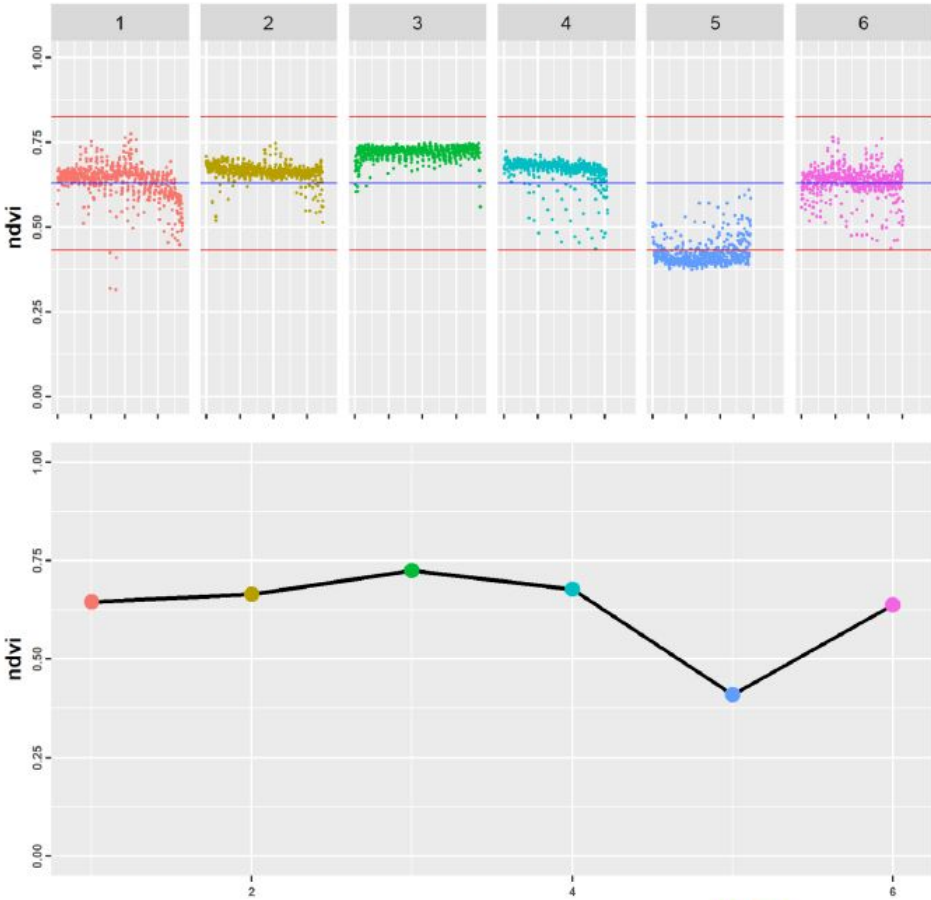
piquetes_modulo3_ndvi_20180319



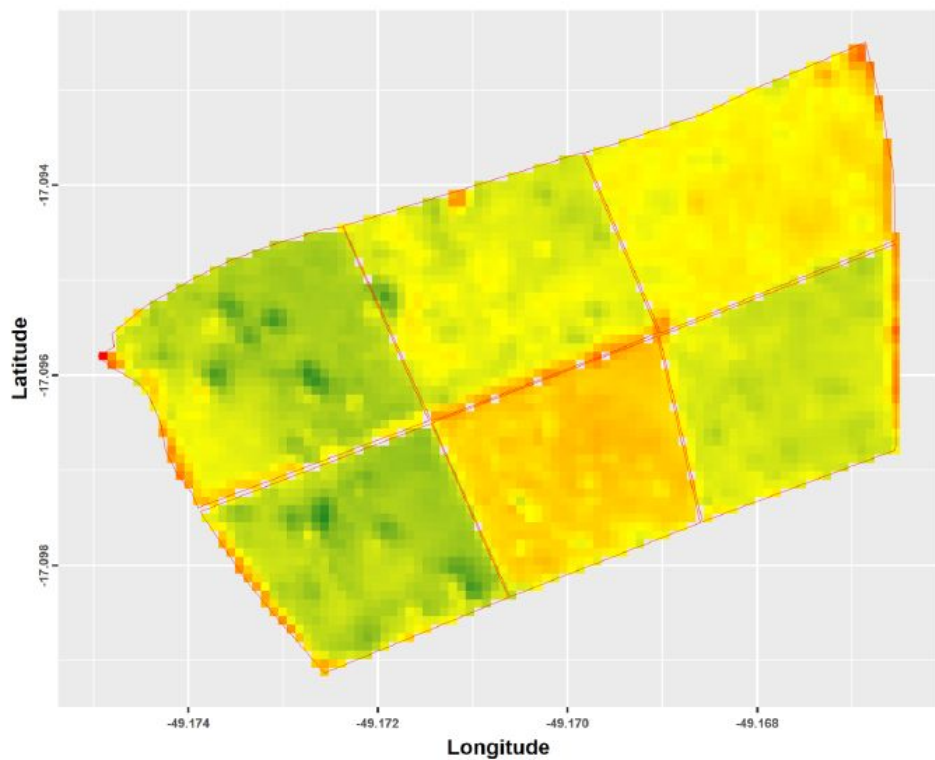
Fazenda Eldorado



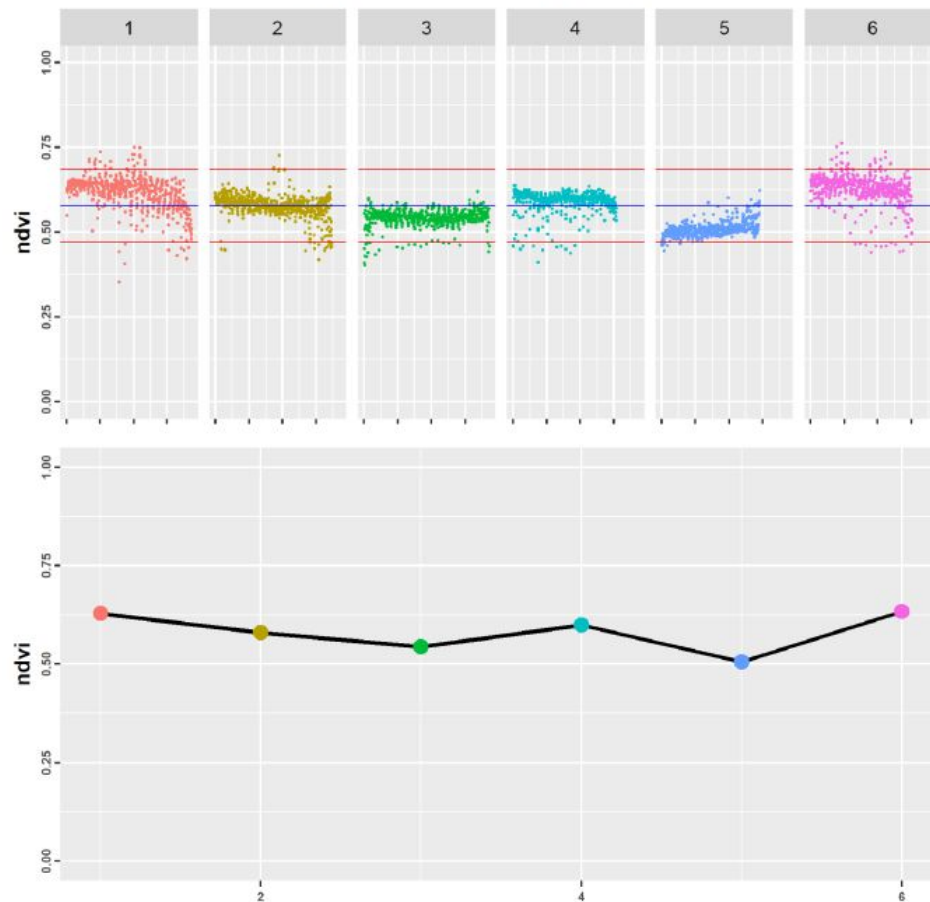
piquetes_modulo3_ndvi_20180423



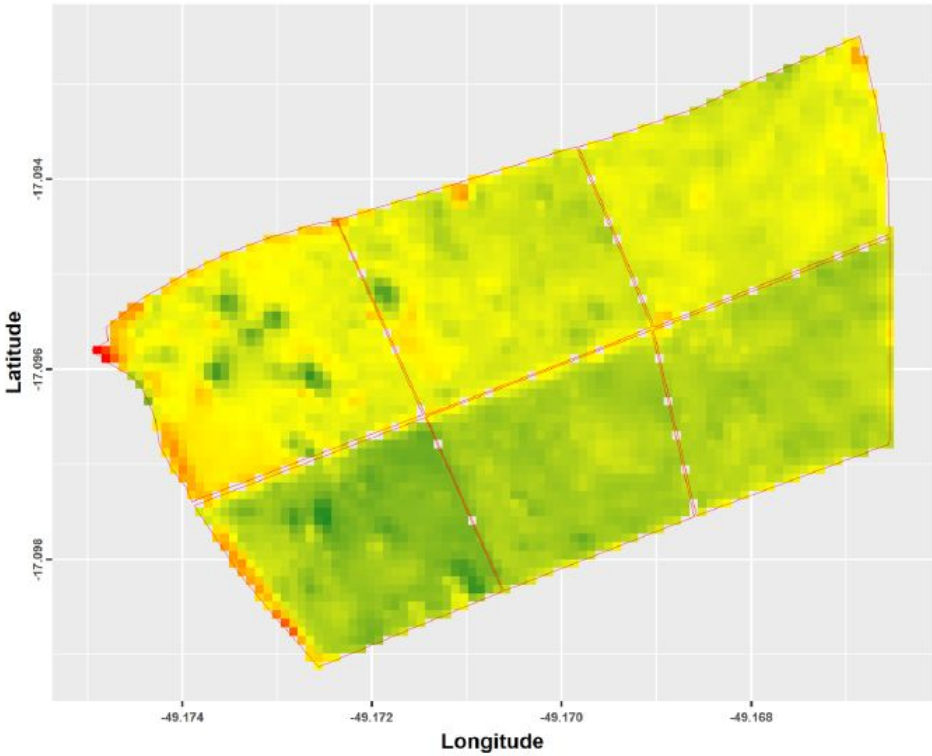
Fazenda Eldorado



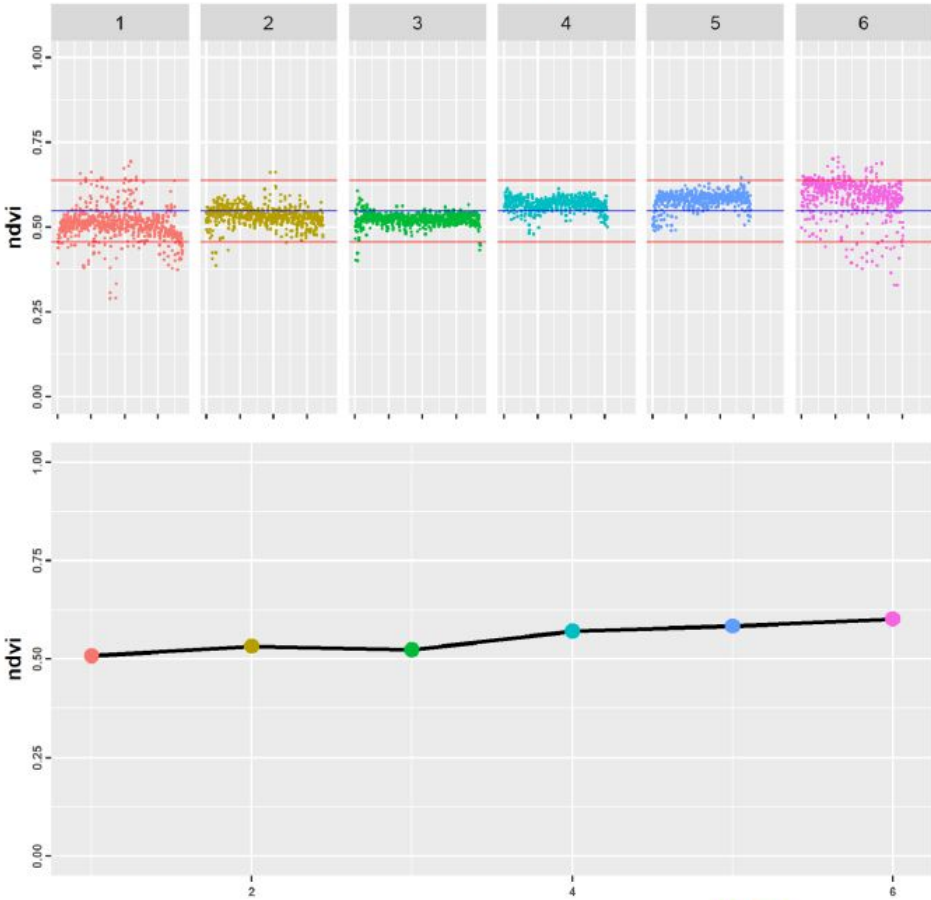
piquetes_modulo3_ndvi_20180508



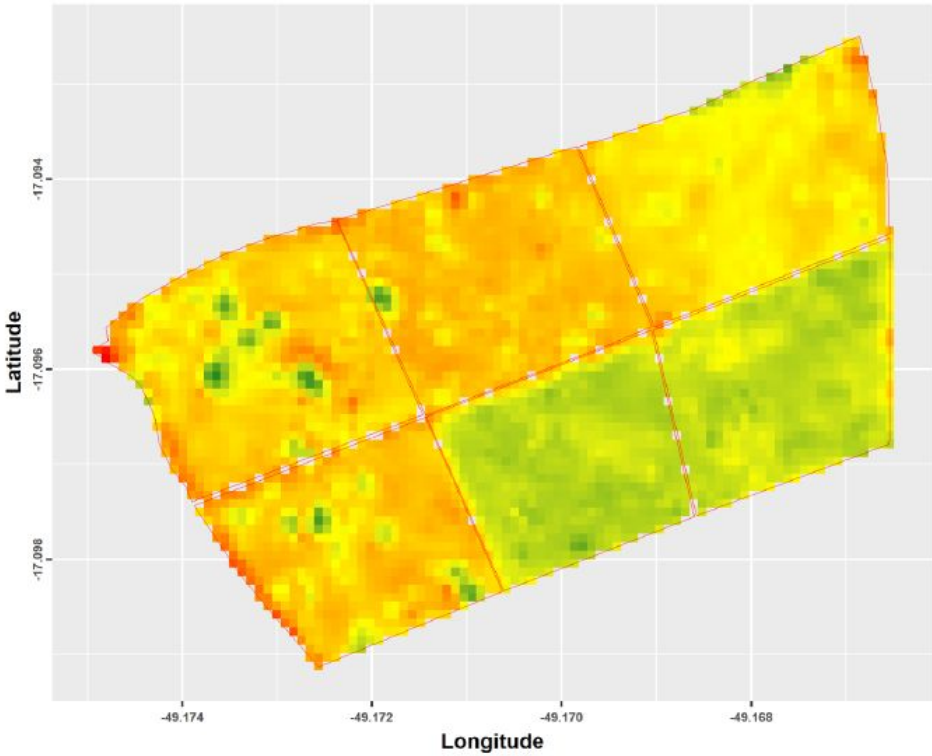
Fazenda Eldorado



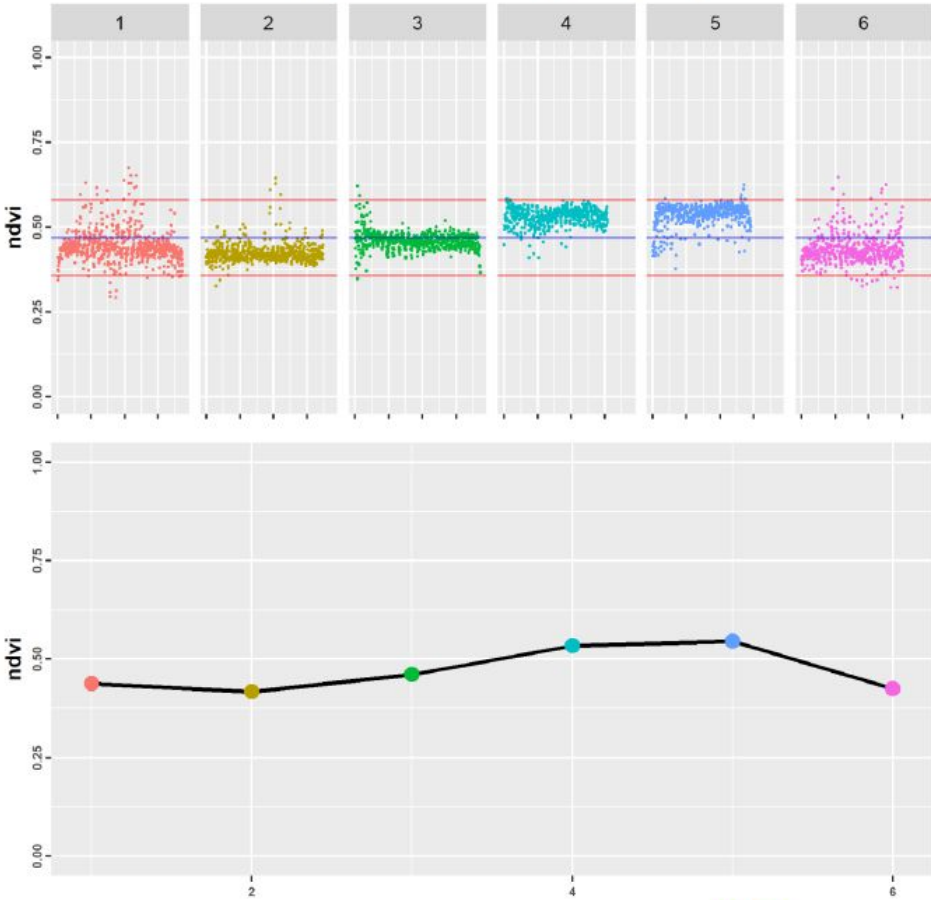
piquetes_modulo3_ndvi_20180612



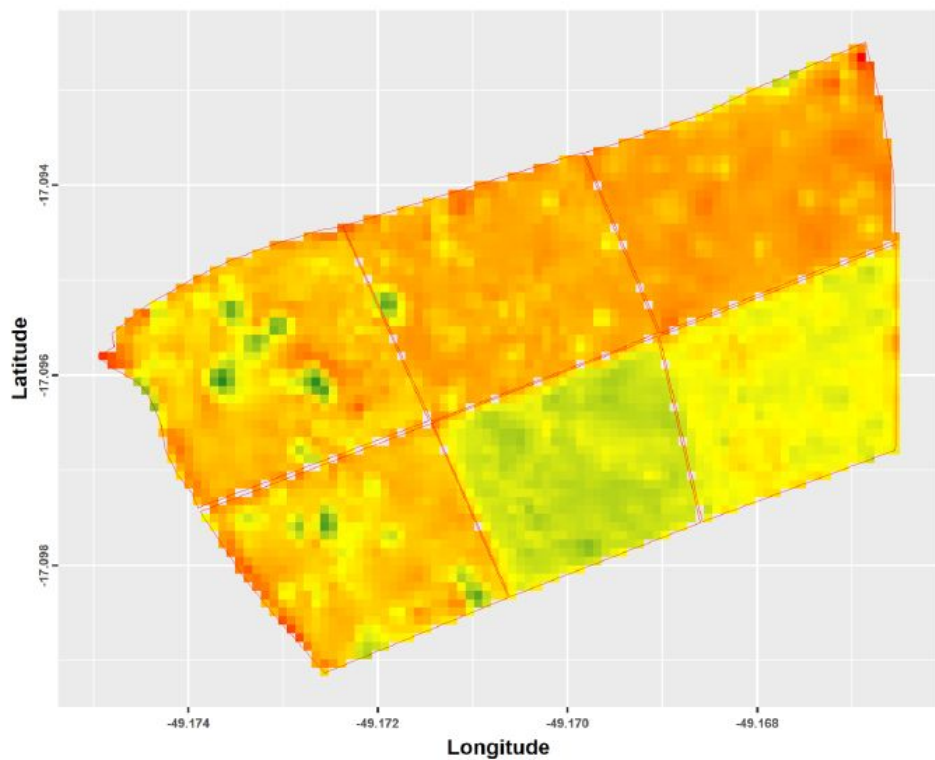
Fazenda Eldorado



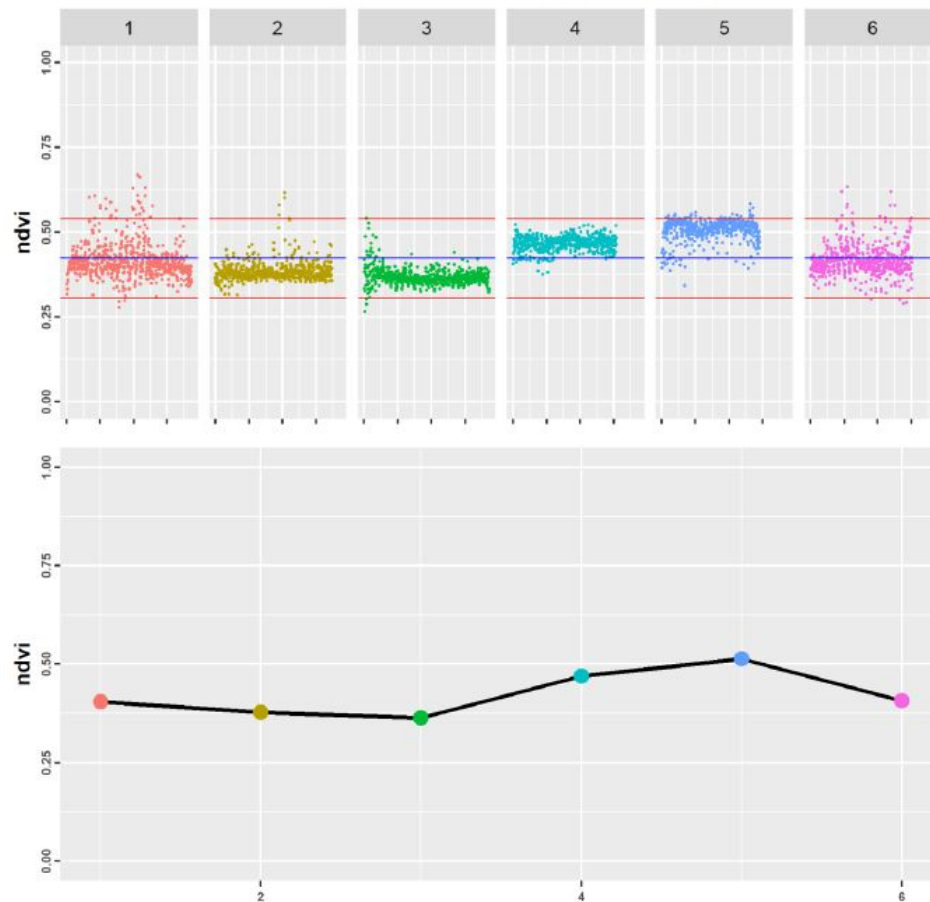
piquetes_modulo3_ndvi_20180627



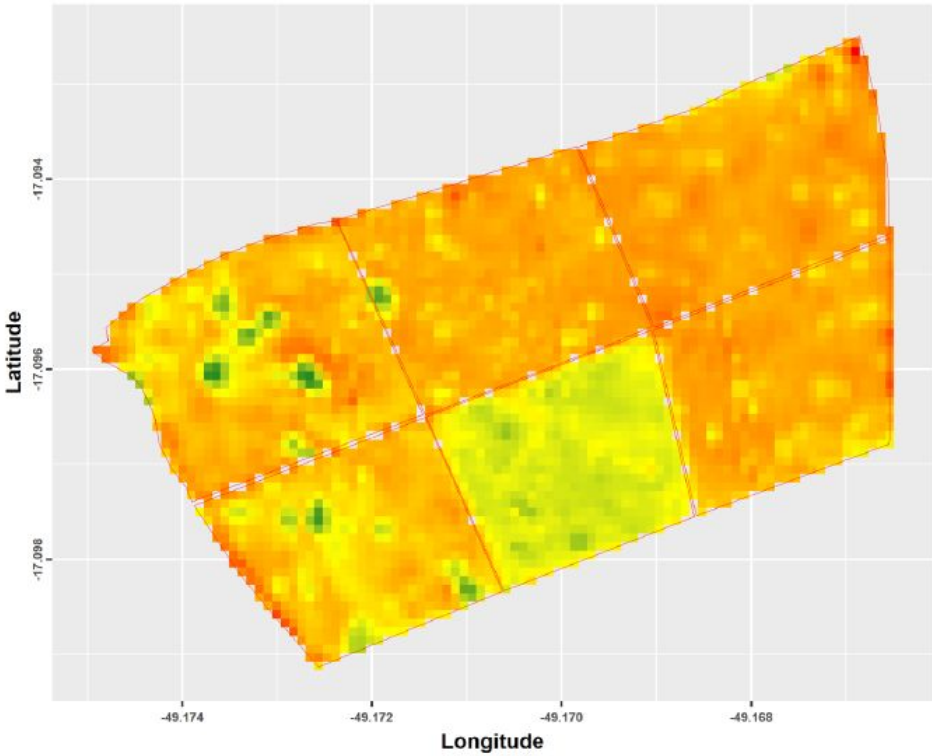
Fazenda Eldorado



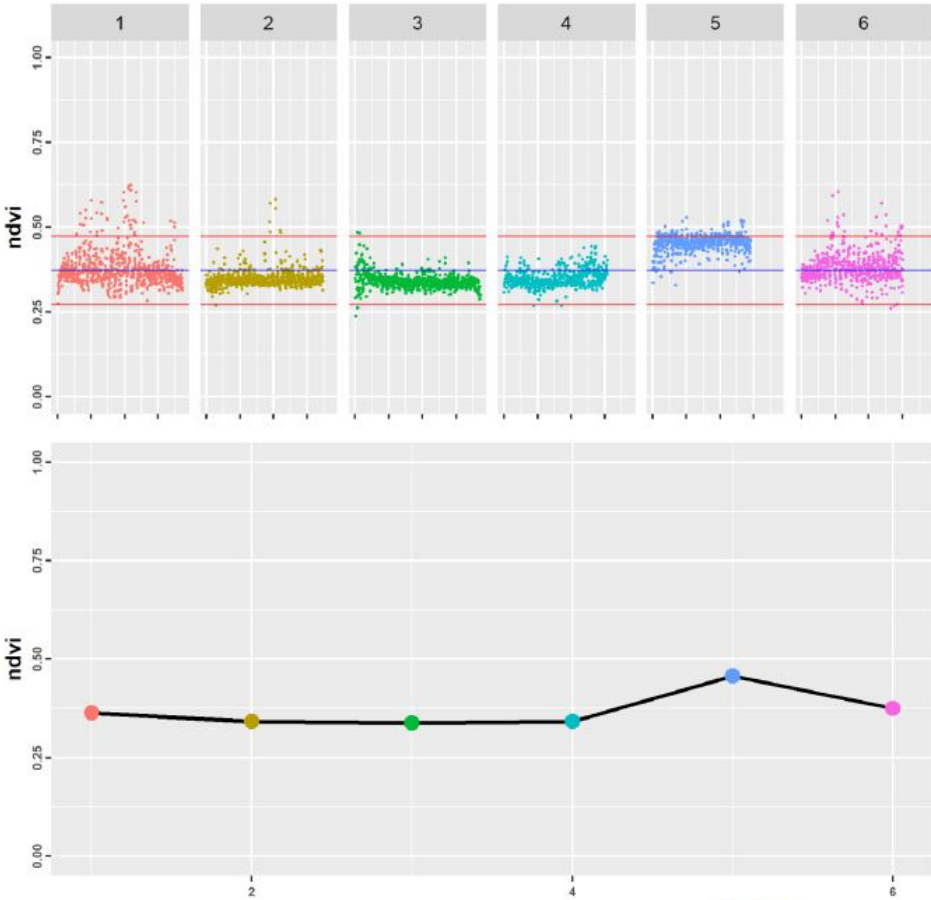
piquetes_modulo3_ndvi_20180707



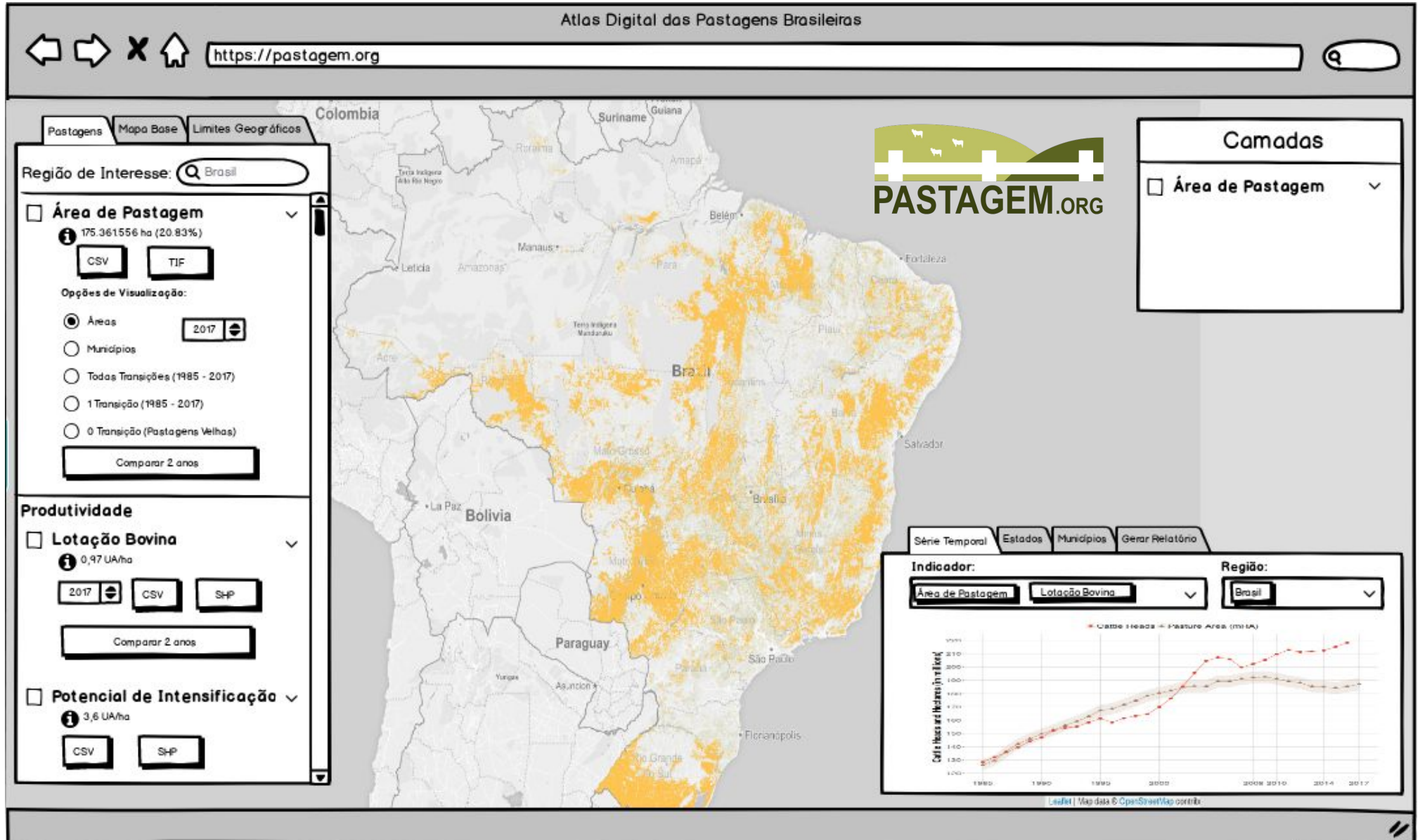
Fazenda Eldorado



piquetes_modulo3_ndvi_20180717



Digital Atlas of the Brazilian Pastures (coming in October!!!)





Obrigado