Modelling the Effects of Land-Use Change on Regional Climate

- Integrate accurate land-cover data into a regional climate model
- Determine if improved land-surface representations in a regional climate model improves model accuracy
- Compare differences in water and energy fluxes over different land-cover types to understand the physical mechanisms by which land-use changes are affecting regional climate
- Quantify the effects of land-use change on regional climate, specifically precipitation and evapotranspiration
Over half of the Brazilian Cerrado (yellow) has been deforested and cleared for agropastoral purposes.

Figure by Stephanie Spera (2017), PRODES and LAPIG data
Vegetation plays an important role in modulating weather and climate.
Have these land-use changes affected regional climate?