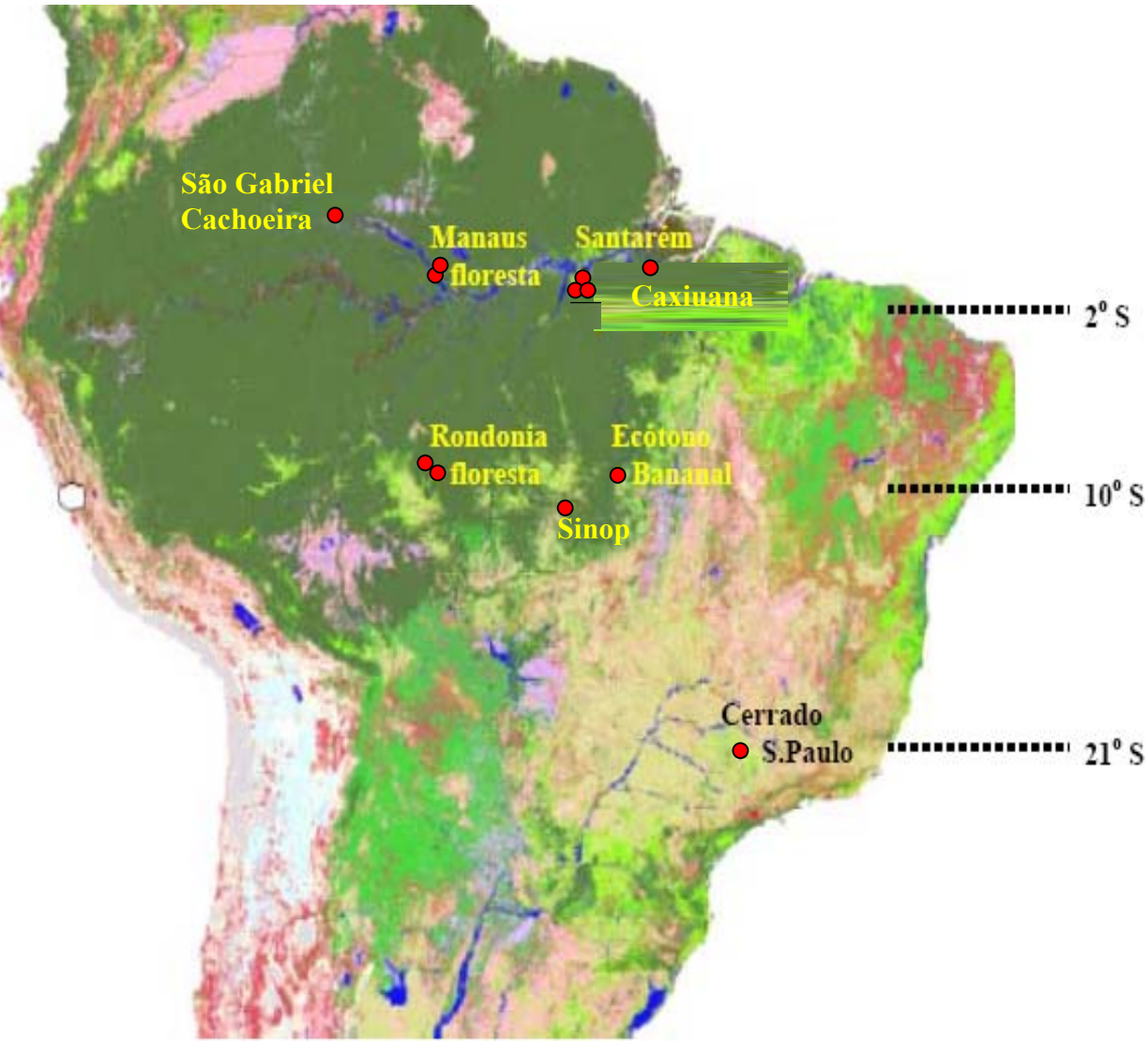
# Scaling Carbon Fluxes with models and remote sensing



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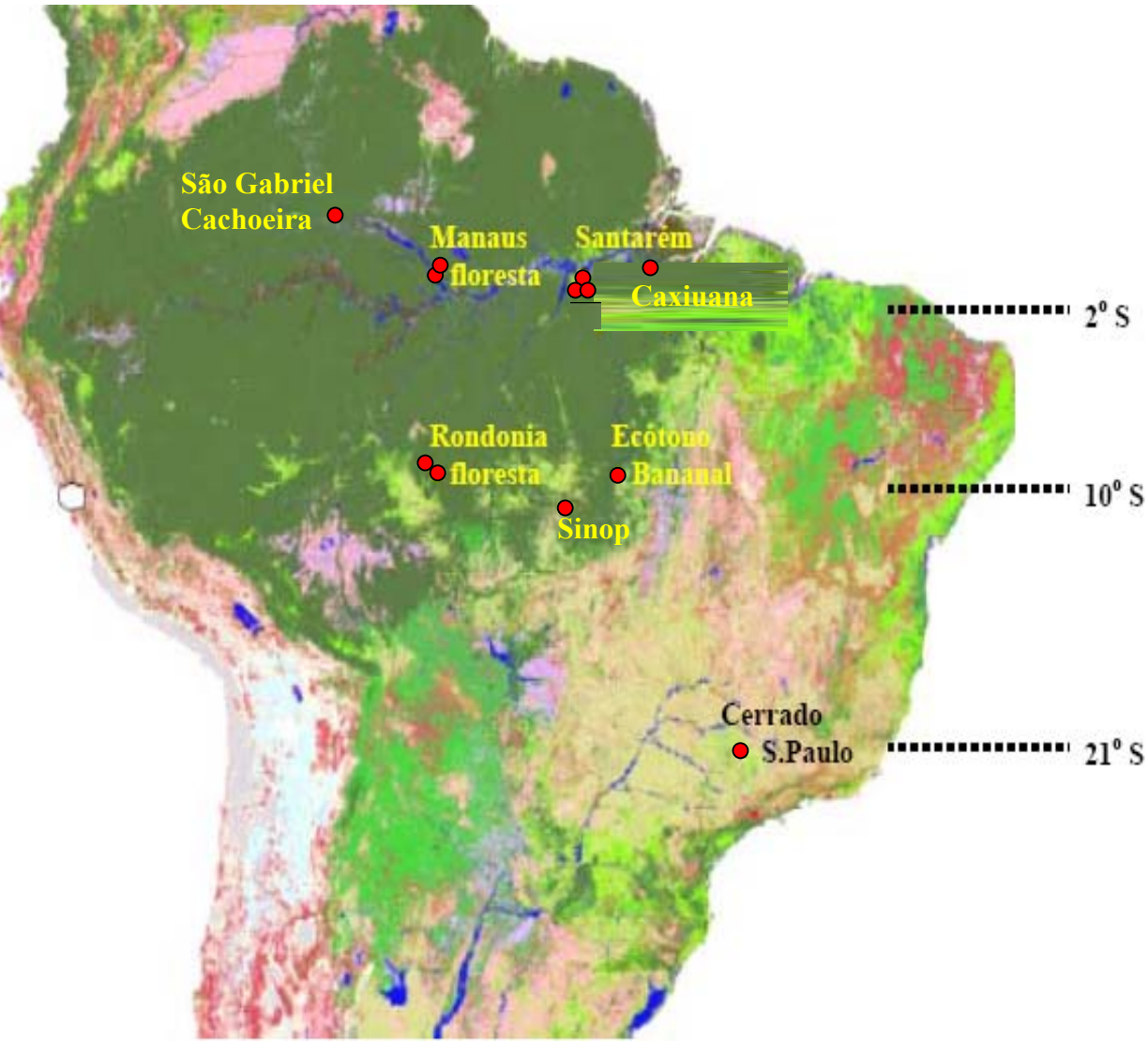


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- 1.5 – 3.5 m annual precip
- from 0° - 21°S
- from primary wet forest to Cerrado, including pasture and agricuture sites

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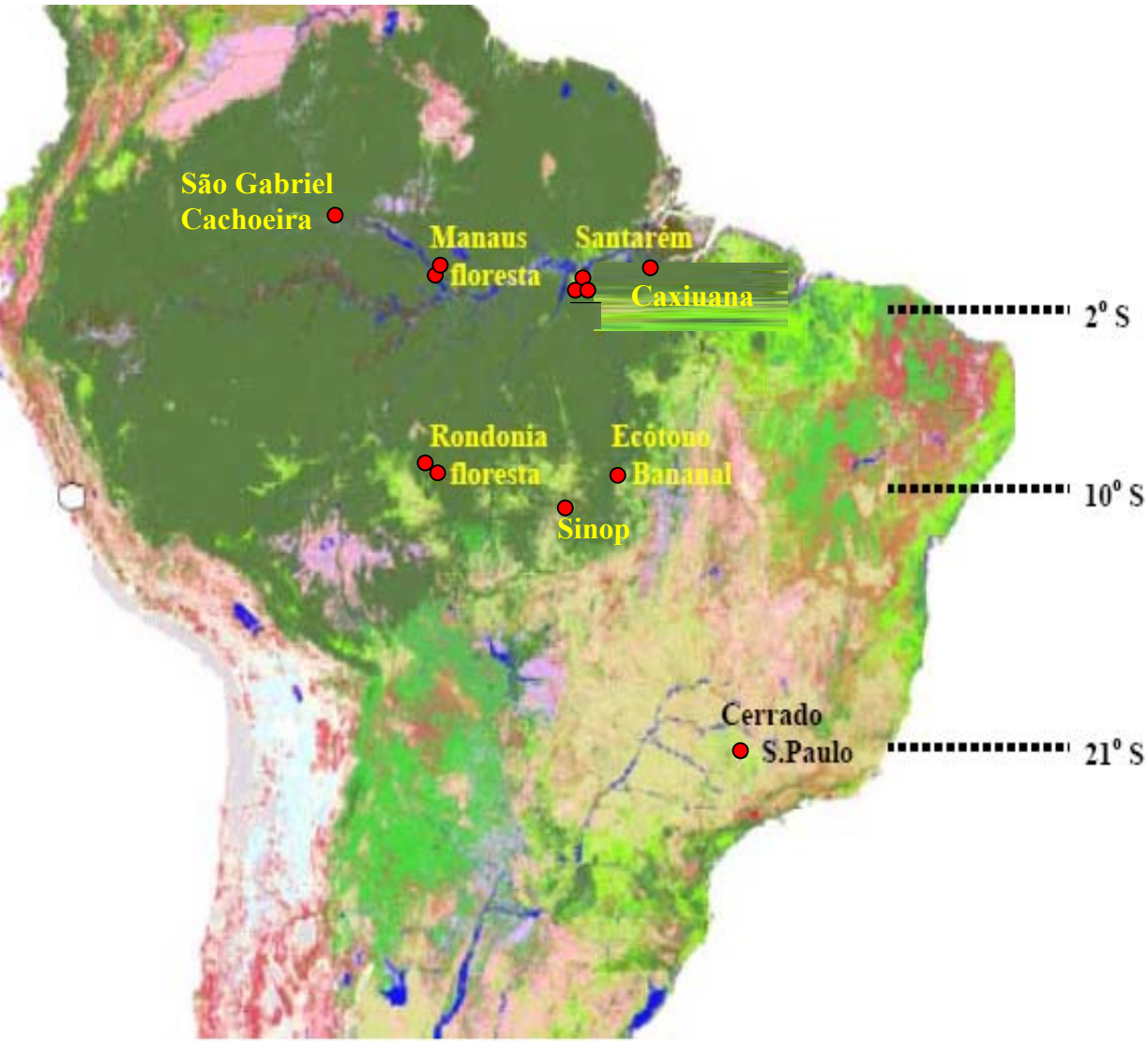


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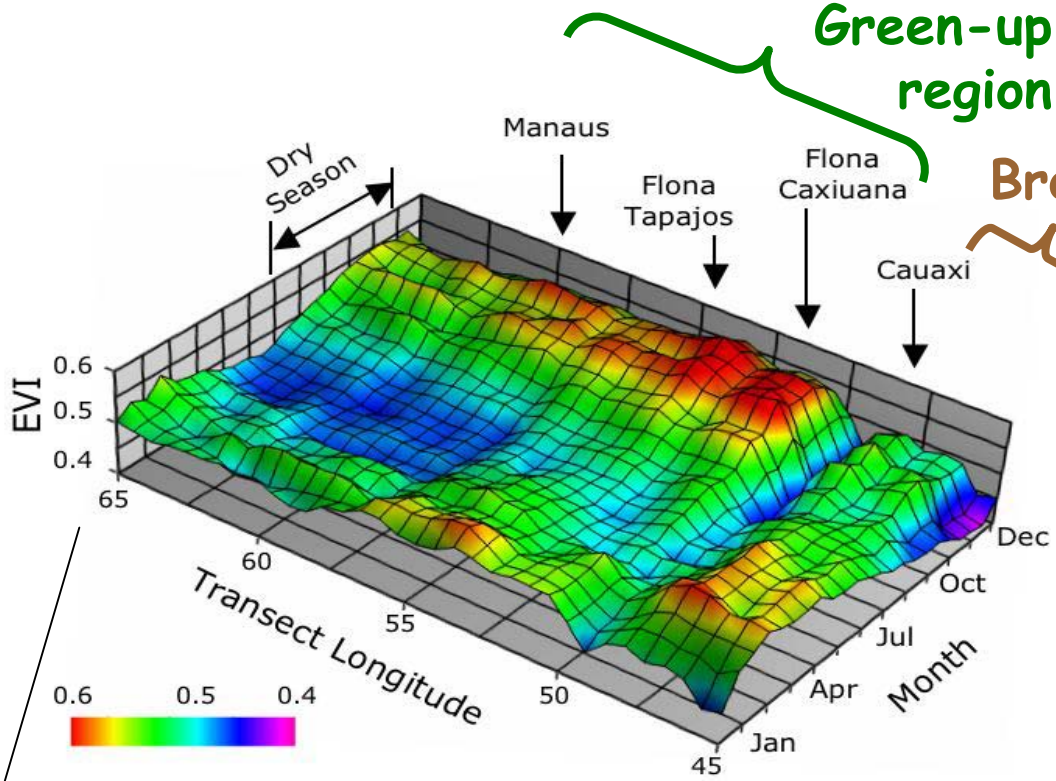
## Goals for Data

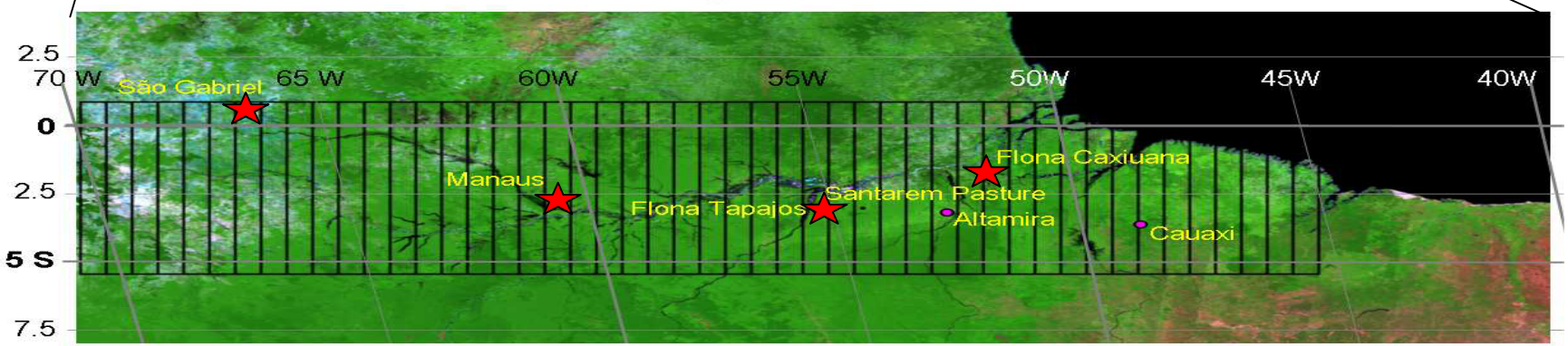
- Cross-site comparisons of ecosystem properties
- parameterize and test models
- data-grounded extrapolations with remote sensing

# *EXAMPLE:* Remote sensing Data (MODIS Enhanced Vegetation Index, EVI) shows that broad areas of Amazon forest "green up" in the dry season:



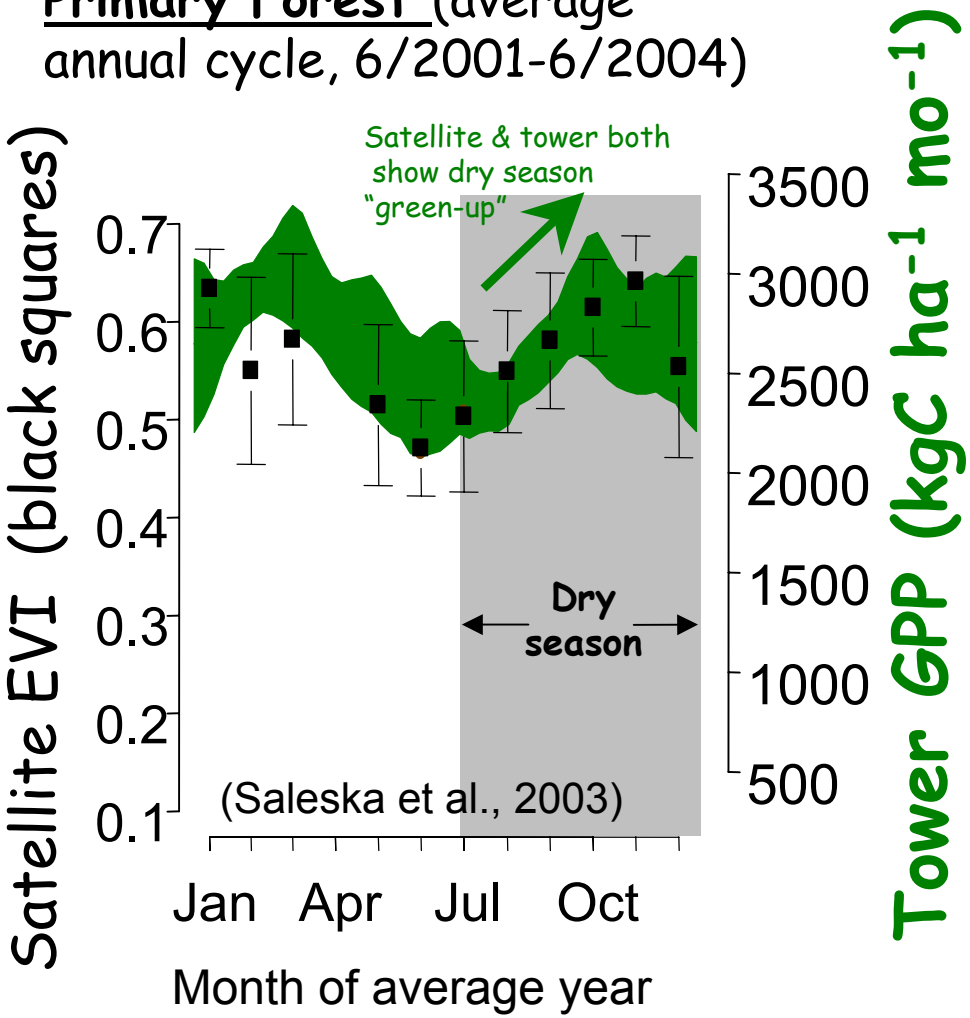

Source: Huete, Shimabukuro et al., (in review)

★ Eddy flux tower site



# *EXAMPLE:* Santarem region ground-test: satellite observations (MODIS EVI) vs. Tower-based GPP

**Primary Forest** (average annual cycle, 6/2001-6/2004)



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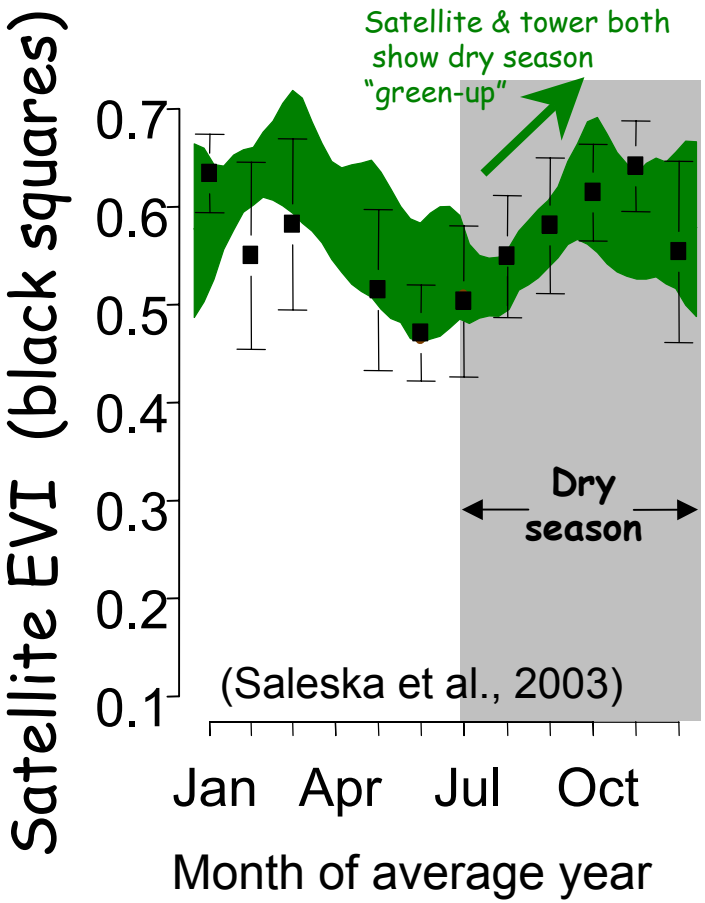
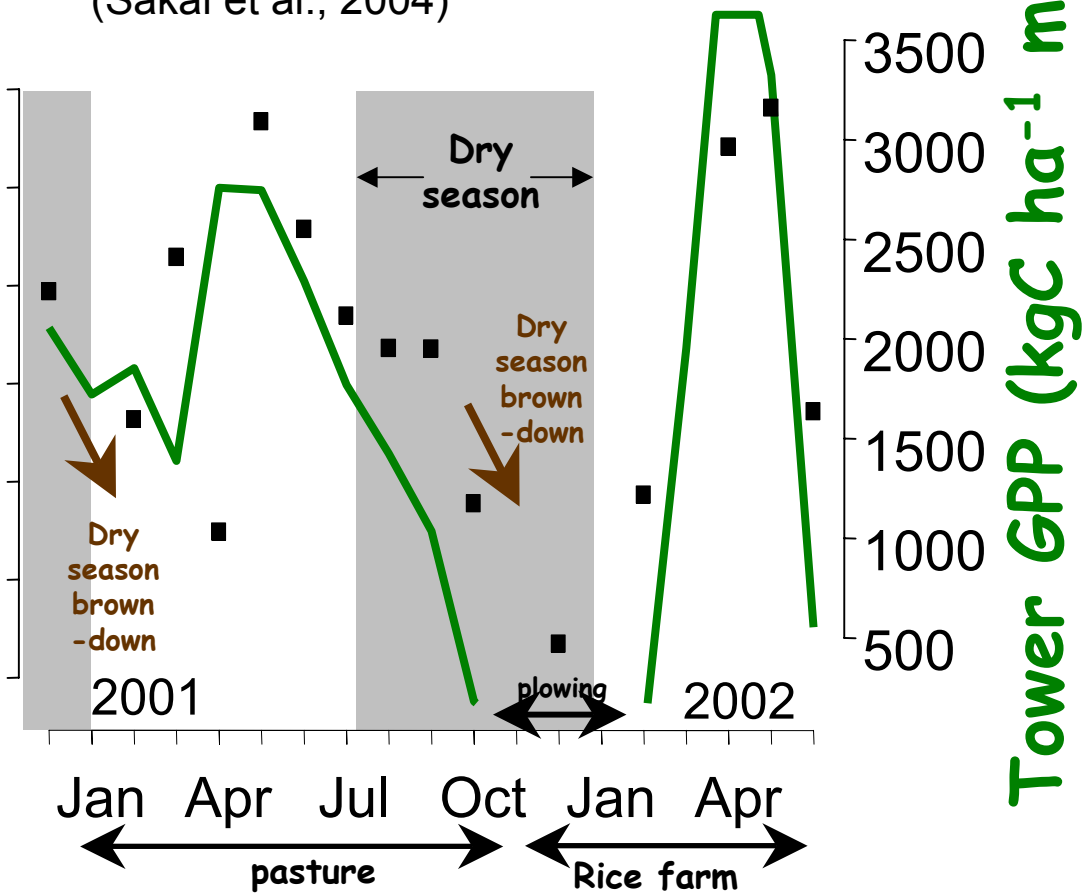



**Converted land**, monthly series (Pasture, then Farm after plowing)

(Sakai et al., 2004)



# Goals for synthesis breakout on "Scaling carbon fluxes"

Saturday, 10:30am, Co-Chairs: S. Saleska, A. Nobre, H. da Rocha

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- Bring together community working on eddy flux tower measurements, modeling, and remote sensing
- Develop plan to generate Products:
  - integrated eddy flux dataset (rigorously cross-checked) from multiple sites
  - Model testing with integrated flux dataset
  - Remote sensing extrapolation from integrated flux dataset
- INPA-hosted Workshop in 2006