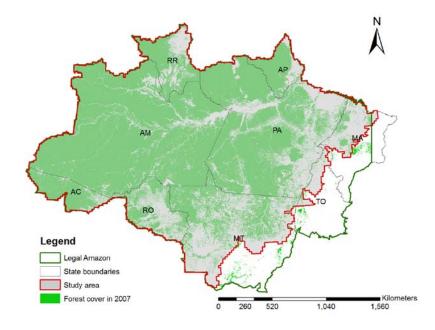
## Cross-compliance in Brazilian Forest Law Enforcement





Jun. Prof. Dr. Jan Börner – Center for Development Research (University of Bonn) jborner@uni-bonn.de

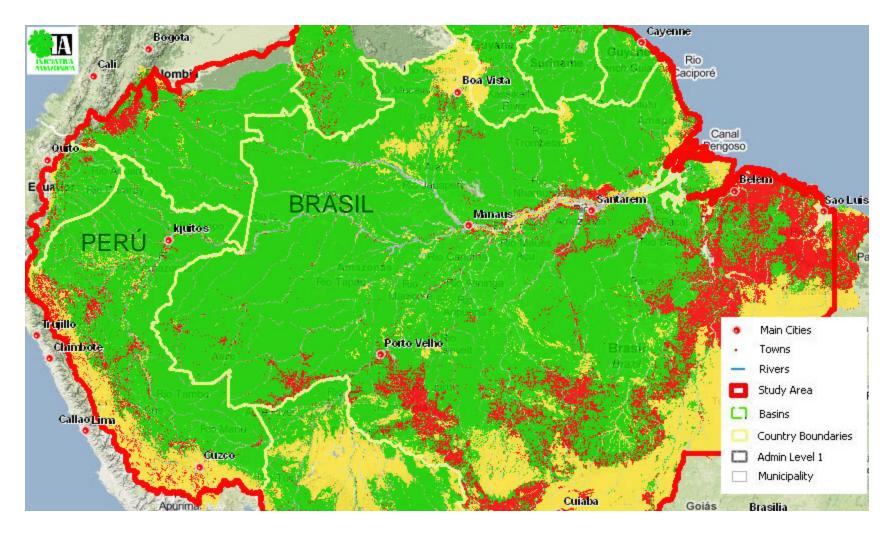




☆ ▼ C 8 ▼ Google

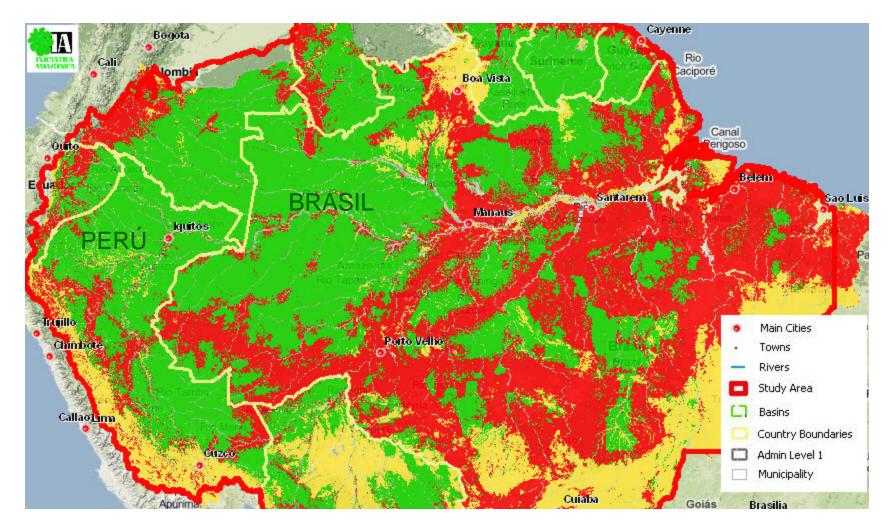
- Cross compliance mechanisms condition benefits or public support on compliance with legal (environmental standards)
- Part of European Common Agricultural Policy since 2005
- Costs are borne by farmers ("polluter pays")

#### **Deforestation in 2001**



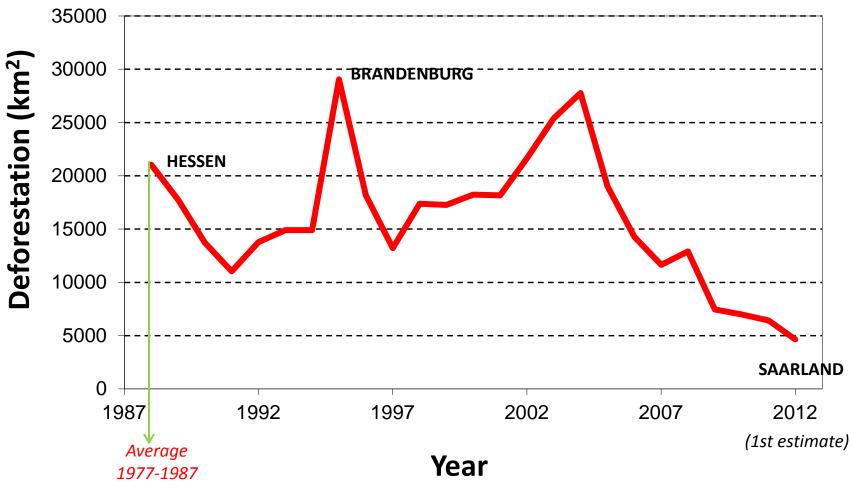
Soares-Filho et al. 2006

#### Scenario for 2050



Soares-Filho et al. 2006

#### **Deforestation in the Brazilian Amazon**



**INPE-PRODES 2013** 

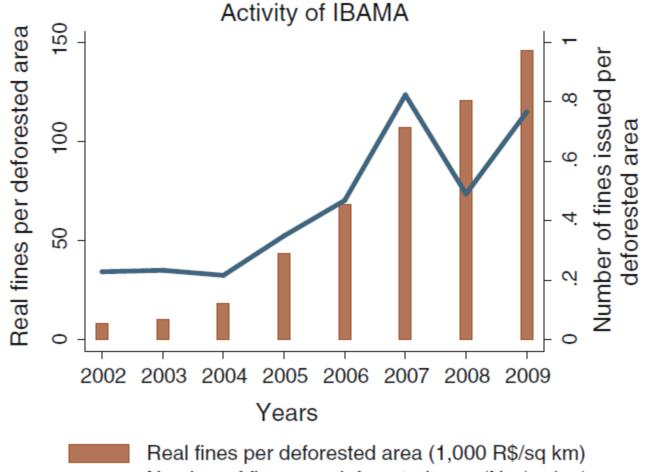
## 2004/5 as a turning point

- 2003 Environmental Minister Marina Silva
- 2004 Record deforestation
- 2004 Adoption PPCDAM
- 2005 Murder of Sister
  Dorothy Stang in Pará





#### Increased regulatory enforcement pressure



Number of fines per deforested area (No./sq km)

#### Increased regulatory enforcement pressure

Activity of IBAMA

## But, less than 1% of the fines are actually being collected!

2002 2003 2004 2005 2006 2007 2008 2009

Years

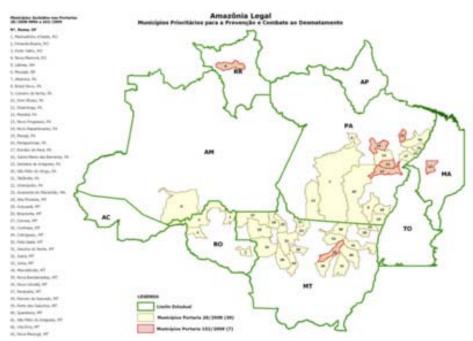


Real fines per deforested area (1,000 R\$/sq km) Number of fines per deforested area (No./sq km)

Hargrave & Kis-Katos 2013

# Key cross compliance mechanisms introduced in 2007 (Decreto 6.321)

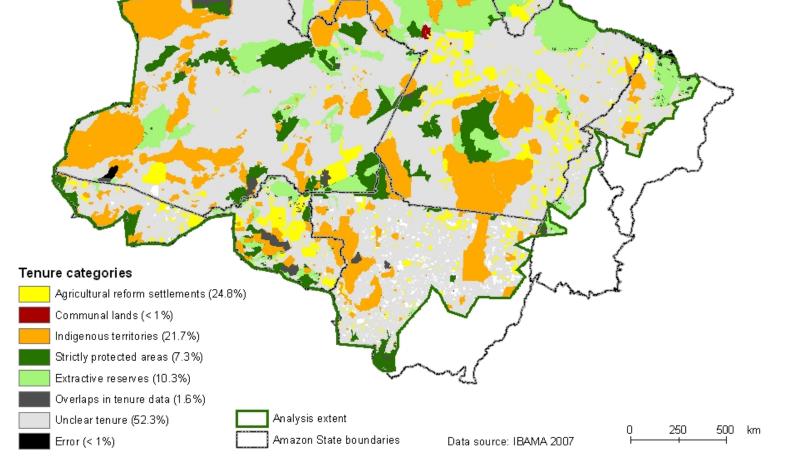
- District blacklist
- Limited access to credit (Resolução 3.545, CMN)
- Value chain liability
- Obligation to re-register properties
- Obligation to 'prove intent' to comply with regulations in the future



### Impact evaluation

- Policy measures adopted after 2004 reduced deforestation by roughly 50% (Assunção et al. 2012)
- Enforcement agency's field presence has a significant effect on reducing deforestation (Hargrave and Kis-Katos 2013)
- Conditioning credit (3.545) has reduced credit availability by R\$ 2.9 billion and deforestation by 2700 km<sup>2</sup> between 2008-11 (Assunção et al. 2013)

### Key challenge for cross compliance: tenure regularization



Börner et al. 2010, 2011

## Outlook

- Cross compliance has become an effective alternative to fine collection in the Brazilian forest law enforcement strategy
- Given administrative capacities and modern monitoring and communication technology, cross compliance is a comparatively cheap enforcement option
- Key challenges:
  - Regulating tenure and delimiting land claims
  - Combining sticks with carrots to encourage sustainable production in the long-term and consolidate political support