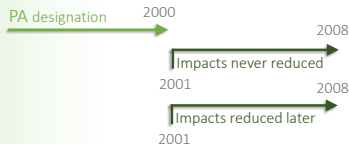


Background

Step 1



Step 2



- 22 enacted PA reductions from 2009 to 2012
- 93% of them were designed before 2000, 3 in 2006 and 1 in 2008

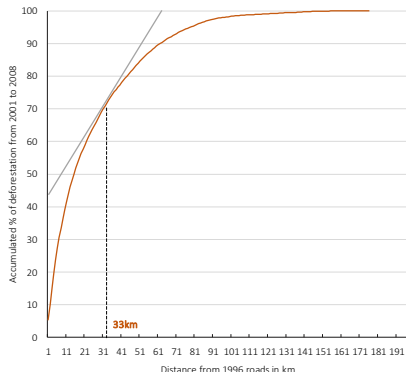
Methodology

- **Outcome:** dummy variable indicating tree cover loss (Hansen et al., 2013)
- **Obs. units:** 1,028,230 random points 1km apart - 20km buffer zone removed
- **Step 1:** P_r and P_{nr} treated, compared to matched NP
Step 2: R treated, compared to matched NR
- **Propensity Score Matching (PSM):** similarity between treated and control obs. is based on the probability to receive the treatment
- **Confounders:** affect OC of conservation and forest cover losses
 - ▷ profitability of agricultural activities
 - ▷ distance to markets
 - ▷ presence of socio-economic activities

Defining threshold distances

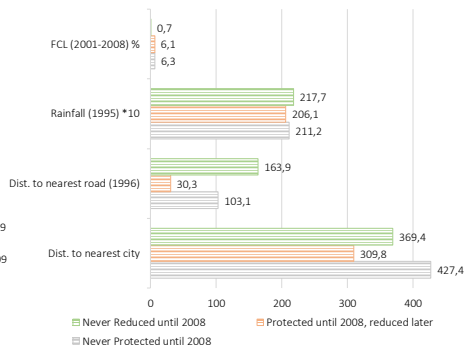
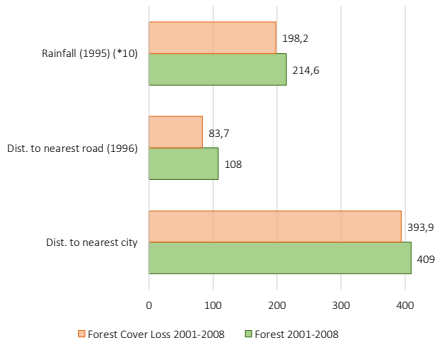
- ATT_r^P , ATT_{nr}^P and ATT^R estimated by subsets of pressure
- Methodology based on Barber et al. (2014) and Jusys (2018)

- ▷ Distance from which forest cover losses start to diminish
- ▷ 2001-2008 forest cover loss - nearest roads in 1996



Descriptive statistics

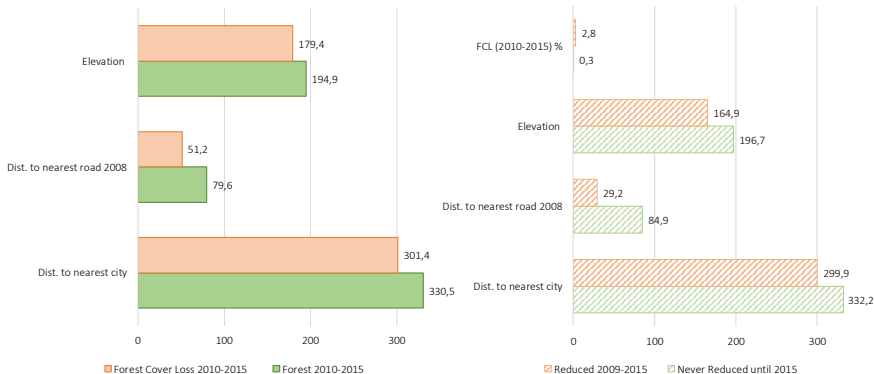
- Step 1: PAs designed before 2000 -



PAs that will be reduced later are near pressure

Descriptive statistics

- Step 1: PAs reduced in 2009-2012 -



PAs that will be reduced later are near pressure