

An aerial photograph of a lush tropical forest. A dark blue river winds through the landscape, surrounded by vibrant green vegetation. Some areas of the forest appear to be flooded, creating a mosaic of green and blue. The perspective is from a high angle, looking down on the terrain.

Sven Wunder, CIFOR

Equitable REDD+ benefit sharing? Lessons from Brazil and Peru



Costs and benefits of REDD+ national policies & measures (PAMs)

=> How does PAM design affect REDD+ cost-effectiveness and welfare/ equity goals?

1. REDD+ is not a high-rent 'free lunch':
large compliance costs may reduce net \$
2. (Net) benefit sharing is just as much about cost sharing
3. Likely design tradeoffs, but also synergies between PAM effectiveness and equity

Country cases



Preconditions

BRAZILIAN AMAZON

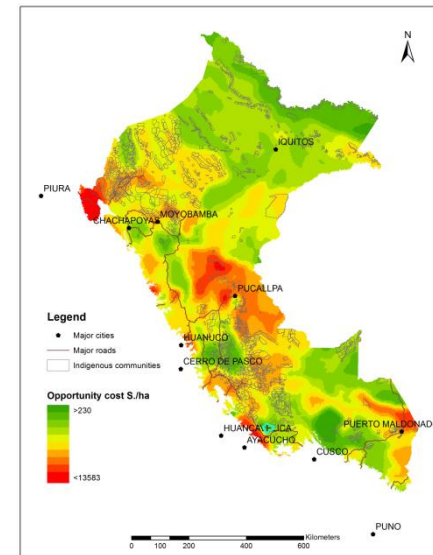
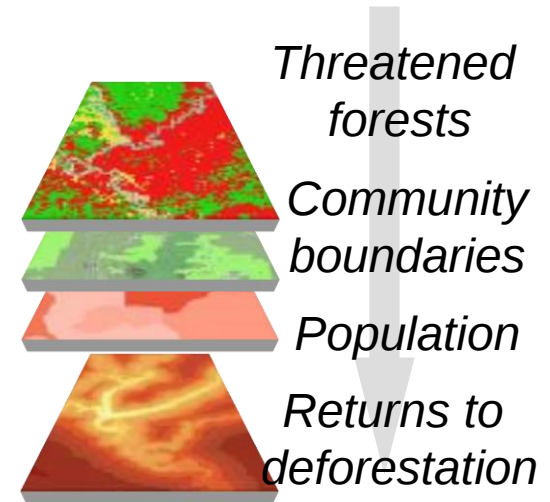
- High historical deforestation
- Highly concentrated land ownership
- Commercial agriculture and cattle operations at the agricultural frontiers
- Well developed forest monitoring
- Law enforcement strong
- Large-scale PES planned

PERUVIAN AMAZON

- Historically low deforestation
- More homogeneous distribution of land
- Predominantly subsistence cattle production and small but growing commercial sector
- Weak forest monitoring
- Law enforcement lagging
- National PES piloted

Data & modeling

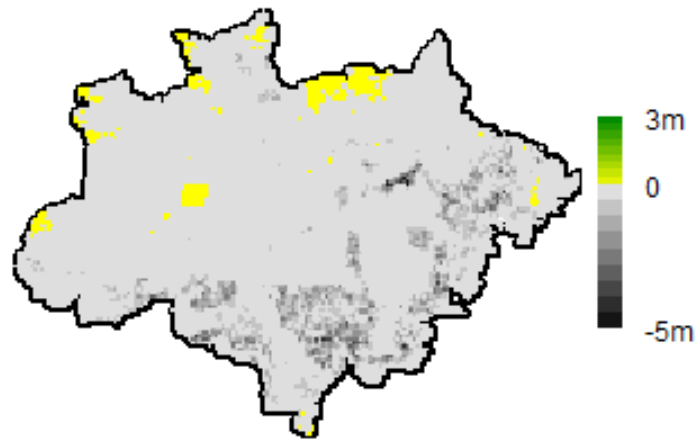
- District-based opportunity cost analysis
- Grid-based spatial simulation of:
 - Avoided deforestation
 - Land user incomes
 - Command-and-control implementation costs



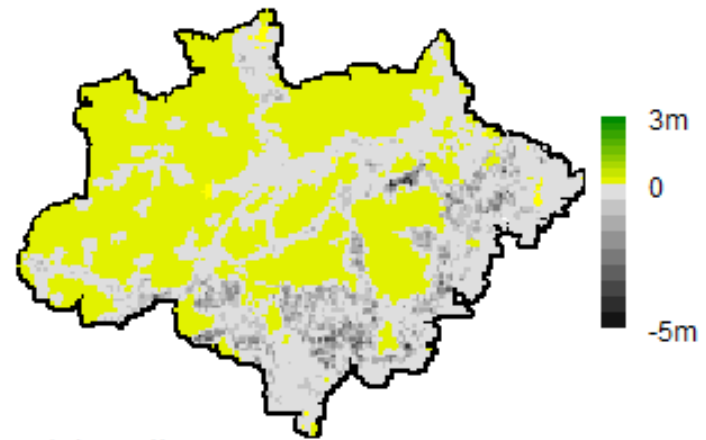
Policy course: Brazil

- Brazil has “pre-REDD” effectively reduced deforestation to ~80% of pre-2004 levels; recent uptick, “ruralist” reaction
- Mainly by command-and-control (C&C) policies (=“sticks”) -- budget-wise cheap, yet costly to land users (Börner et al., 2014)
- Effective C&C may now require complementary incentives to remain politically viable (Nepstad et al., 2014)

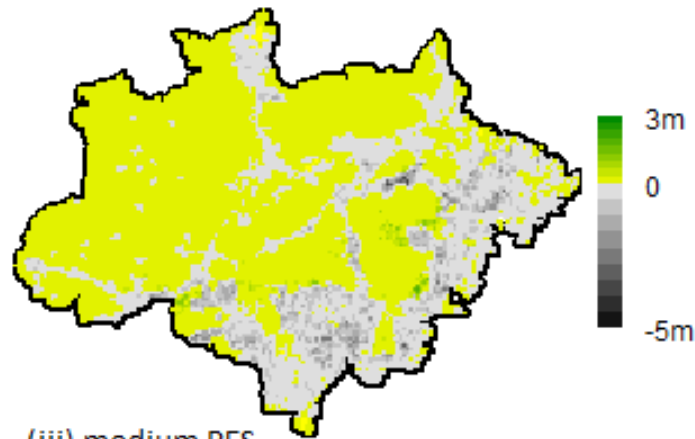
Welfare effects of policy mixes: Brazil



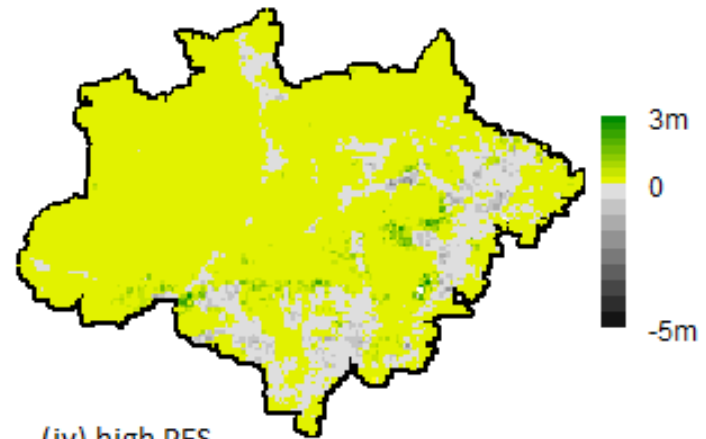
(i) no PES



(ii) small PES



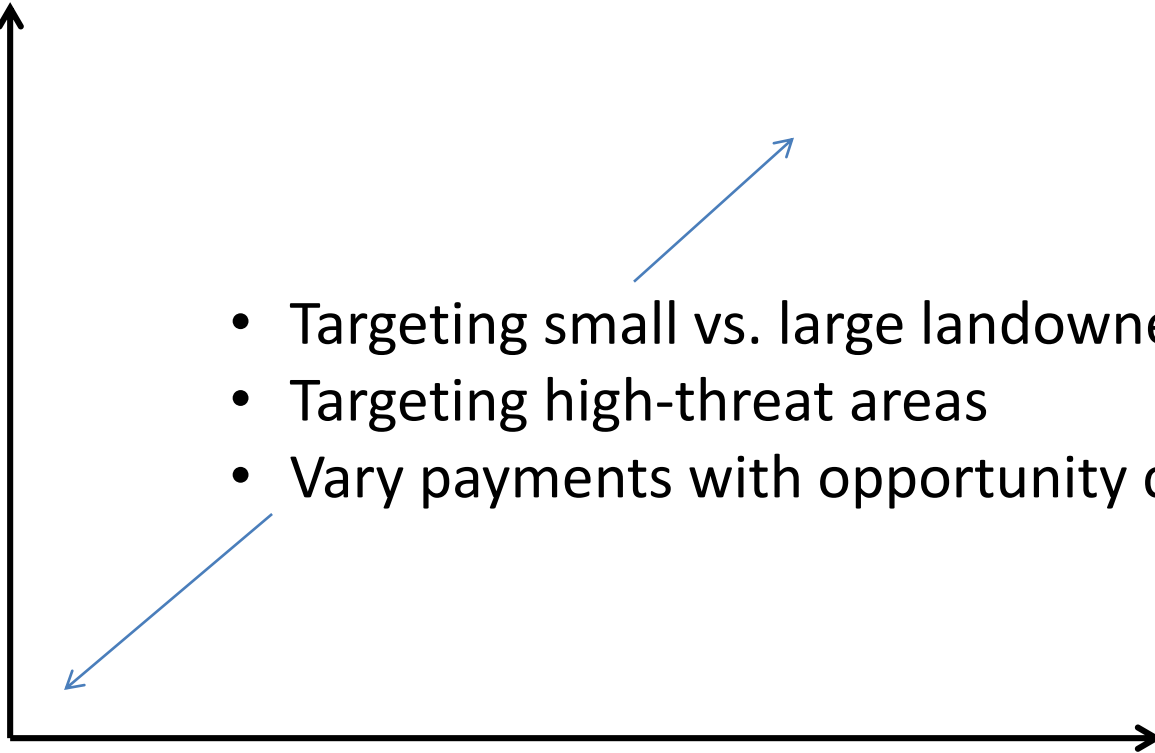
(iii) medium PES



(iv) high PES

PES design tradeoffs

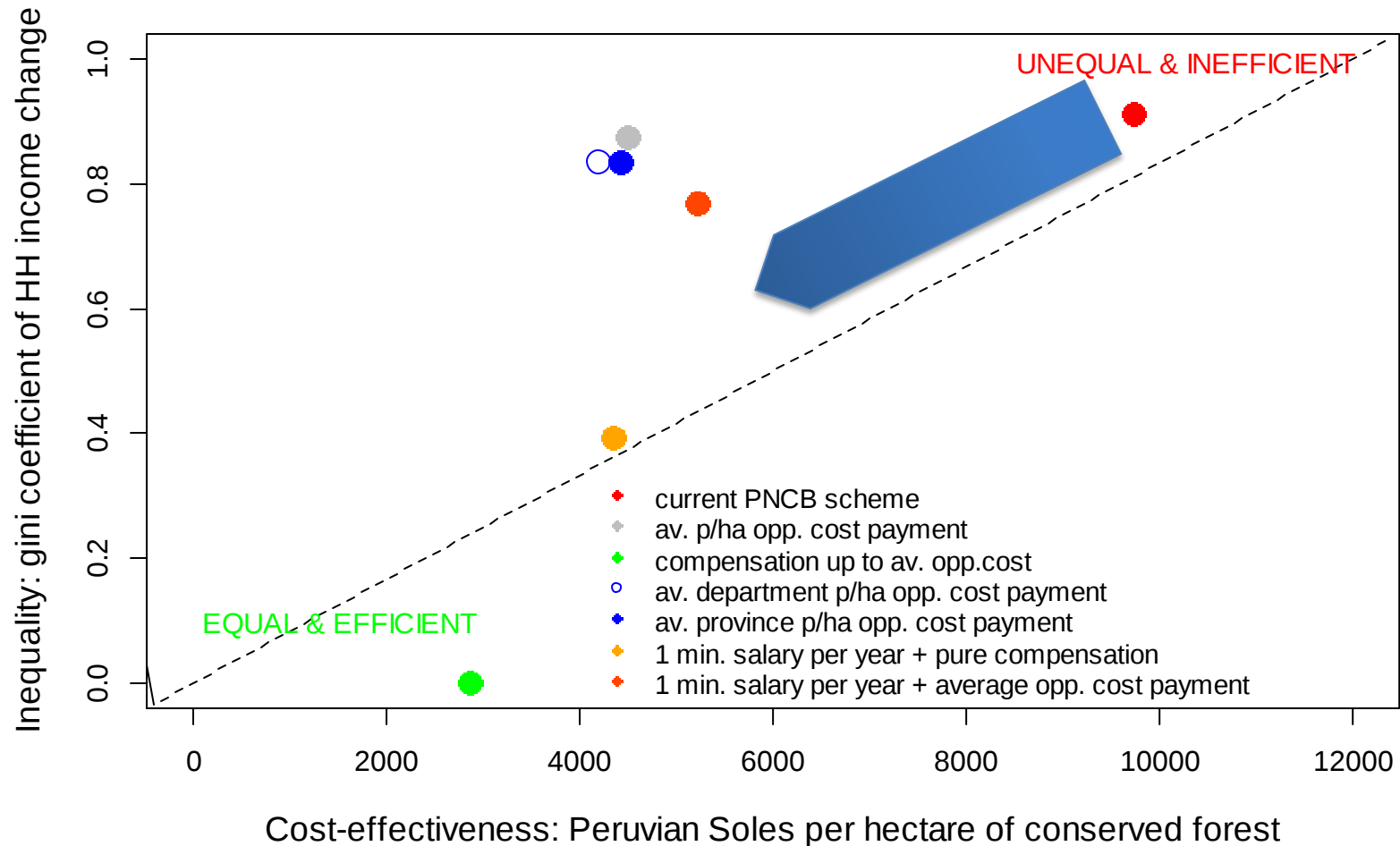
Cost-
effectiveness



- Targeting small vs. large landowners
- Targeting high-threat areas
- Vary payments with opportunity costs

Equality

PES design tradeoffs: Peru's PNCB



Political economy of adopting large-scale PES programmes

- Cases: Peru, Ecuador, Acre (fed state Brazil)
 - Mostly top-down adoption (Peru, Ecuador)
 - Welfare motives vital in political decisions
 - Environment less influential for design
- ⇒ Benefit sharing key motive – maybe more than is healthy from a REDD+ effectiveness perspective!

(Rosa et al., 2015)

Key findings

- Mixing (cost-effective) sticks with (equitable) carrots makes REDD+ fairer in compensating costs, but also overall more expensive
- Designing PES well requires knowing the spatial patterns of deforestation and opportunity costs
- Simple and feasible adjustments to Peru's PNCRB can boost cost-effectiveness and equity effects
- 'Benefit sharing' is already key driver for national PES programmes – arguably more so than the environment!