

### AT THE INTERFACE OF FOREST AND FARM

An agenda for research



# REDD+ poses multiple challenges

#### How to:

- Shift household demands for forest products from forest to farm;
  - Spectrum of impacts
    - Rural and subsistence uses
    - Commercial uses
  - Substitution? woodfuel, industrial timber
- Increase tree cover in farming areas to meet demands for tree products
- Improve the management of forests and woodlands to meet demands



## Risks of understating the obvious

### Transitions are underway:

- Global forest cover is both degrading and declining;
- In rural landscapes, tree cover as well as the number of trees on farms is increasing.



Source: FAO (2005). <u>State of the World's</u> <u>Forests</u>.

## Risks of understating the obvious

Tree Cover on Agricultural Land - Global



### Trees on farms are increasing.



### Cash on the stump...



### Establishing boundaries...



### Improving crop productivity...



### ...and increasing household consumption.



### Forest and woodland recovery

In some areas, forests and woodlands are recovering as a result of long term programs focusing on rehabilitation

![](_page_9_Picture_2.jpeg)

5 million ha of millet production in Niger under Faidherbia albida farmingsystems

### Regenerating woodlands...

![](_page_10_Picture_1.jpeg)

![](_page_10_Picture_2.jpeg)

![](_page_11_Picture_0.jpeg)

Ownership and tenure ... and why it matters for REDD+

#### Who owns trees on farms?

- Sometimes separable land and tree tenure
- Widely accepted principle of 'who puts in the labor owns the tree'
- Gender implications derived from custom
- Who owns trees in forests and woodlands?
  Emergence of
  - State, community, private
  - Questions of governance Who owns the trees

awaa tha aarhaa

markets for forest

### Devolving rights of woodland and forest ownership

- Does it improve management?
- Empirical studies: Chhatre and Agrawal (2008, 2009); Coleman (2009)

![](_page_13_Figure_3.jpeg)

### Collective action in community forests works ...

![](_page_14_Figure_1.jpeg)

### Markets have important influences...

![](_page_15_Figure_1.jpeg)

### Markets can drive degradation..

![](_page_16_Figure_1.jpeg)

## ...and can promote forest recovery

![](_page_17_Figure_1.jpeg)

![](_page_17_Picture_2.jpeg)

#### Better community forest governance improves forest outcomes.

![](_page_18_Figure_1.jpeg)

- Monitoring and sanctioning improve biodiversity outcomes
- Greater rule-making autonomy at the local level is associated with high carbon storage and livelihood benefits

## Rehabilitating rural landscapes...

![](_page_19_Picture_1.jpeg)

### How to target public spending at the right things

Turkey: effort to rationalize public spending on soil and water conservation by:

- Identifying the areas which are physically degraded (rainfall use efficiency – how much vegetation do you get per unit of rainfall)
- Identifying where rates of rural poverty are high.

Overlaying land degradation maps with rural poverty maps to identify hot spots

## Targeting Watershed Rehabilitation in Turkey

![](_page_21_Figure_1.jpeg)

## Global potential for landscape rehabilitation

![](_page_22_Picture_1.jpeg)

Landscapes with restoration potential:

Red – potential for concentrated restoration. Degraded concentrated forest areas with low intensity landuse and low population density Yellow – potential for mosaic restoration. Forest farm boundaries

### Landscapes of Opportunity: What does it mean?

![](_page_23_Figure_1.jpeg)

... A billion hectares are potentially available for landscape restoration

### Some references:

#### www.profor.info

www.ideastransformlandscapes.or

### g www.sitemaker.umich.edu/ifri/home