



# Using innovation for accessing impact of GEF support to Land degradation projects

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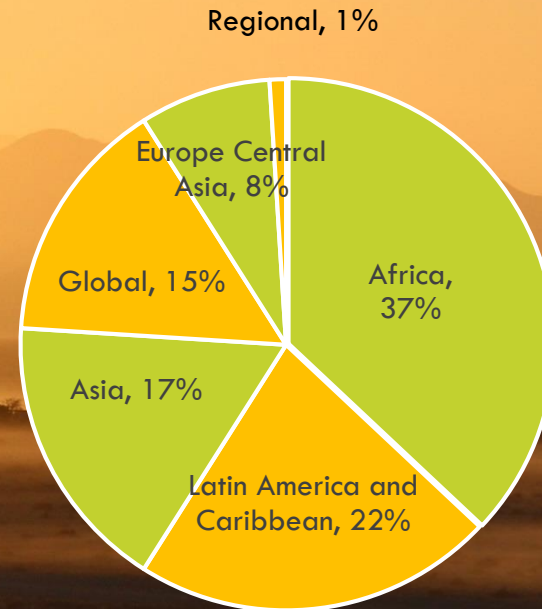
COP13 in Ordos, China – 6 -16 September 2017

## LAND DEGRADATION

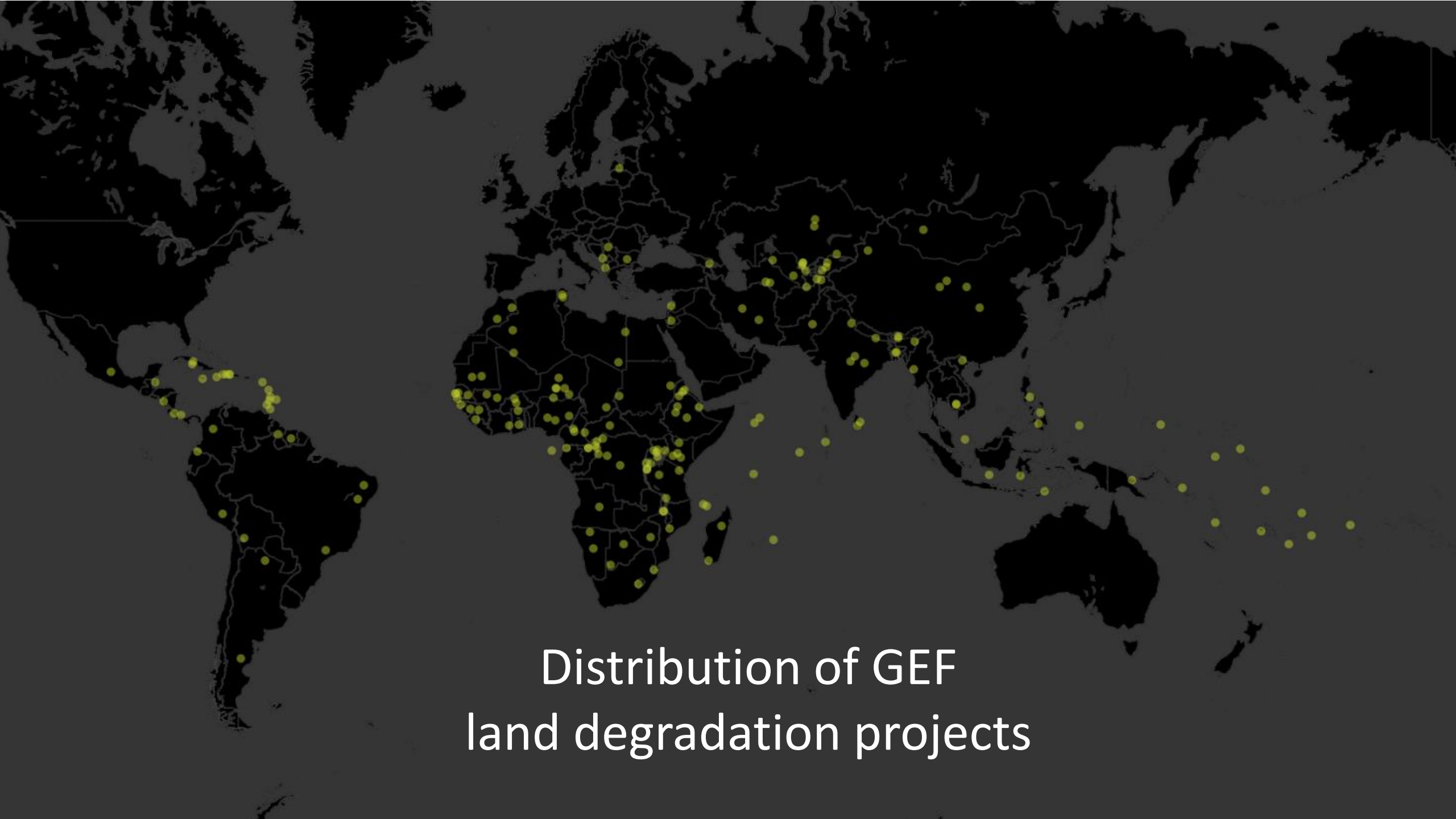
# Portfolio

**\$3.4 billion**  
**618 projects**  
**with an LD**  
**component (58%**  
**multifocal)**

**Cofinancing**  
**20.4**  
**billion**



**Shift towards**  
**integrated**  
**landscapes**



Distribution of GEF  
land degradation projects

## LAND DEGRADATION

# Value for money analysis: 3 main objectives

1

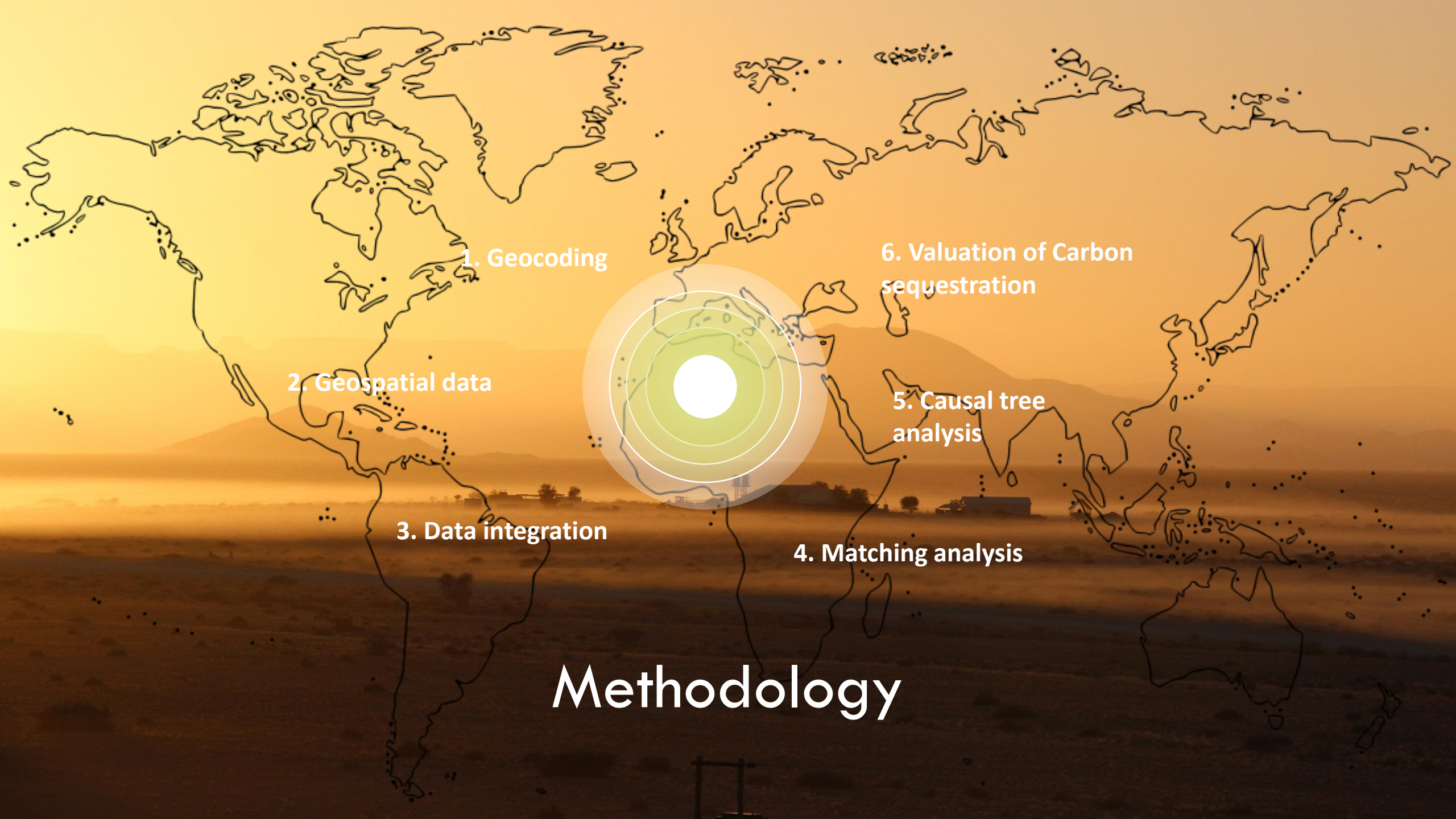
Impact of GEF land degradation interventions?

2

Factors associated with the environmental outcomes?

3

Value for money in terms of carbon sequestered?



1. Geocoding

2. Geospatial data

3. Data integration

4. Matching analysis

6. Valuation of Carbon  
sequestration

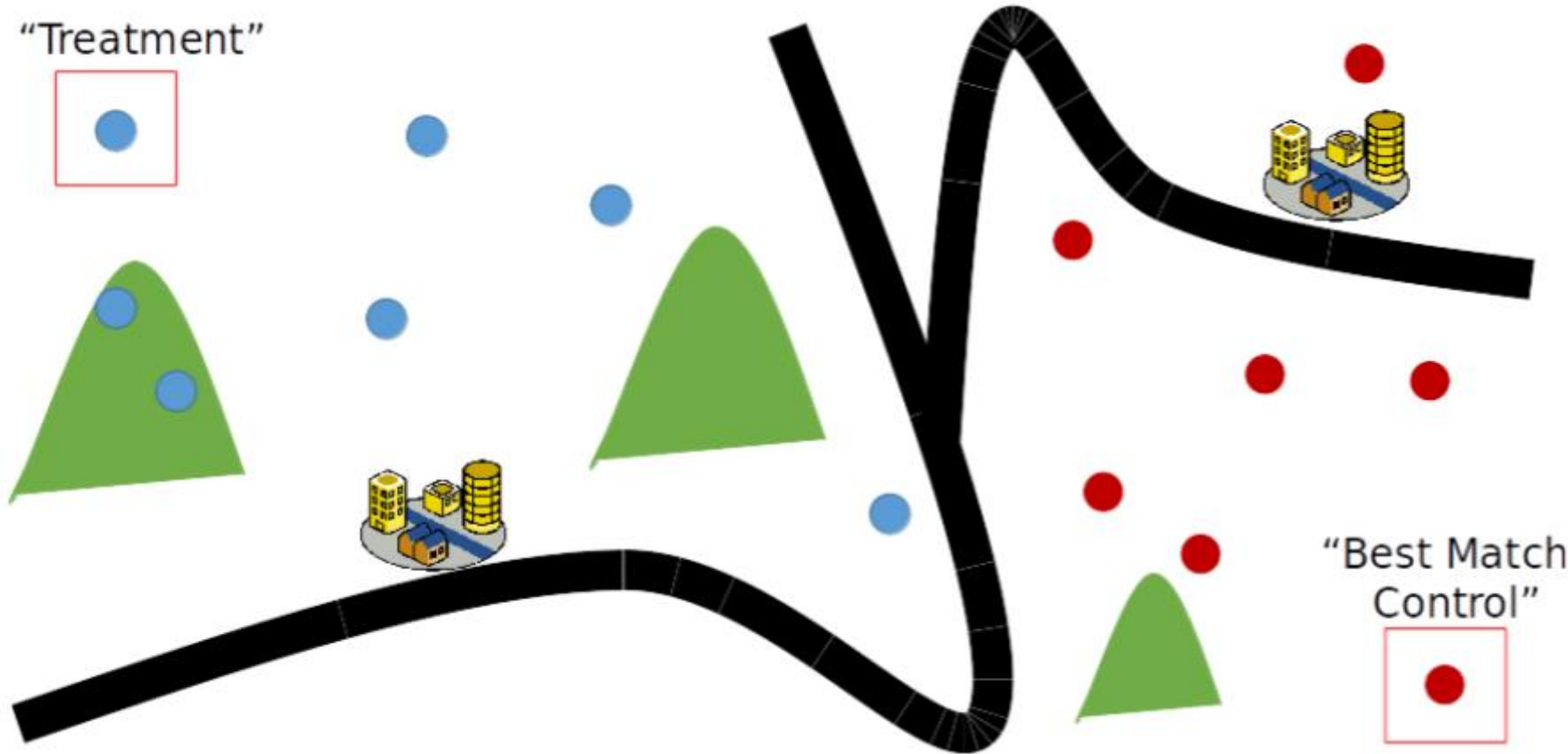
5. Causal tree  
analysis

# Methodology

## LAND DEGRADATION

# Quasi-experimental method

"Treatment"

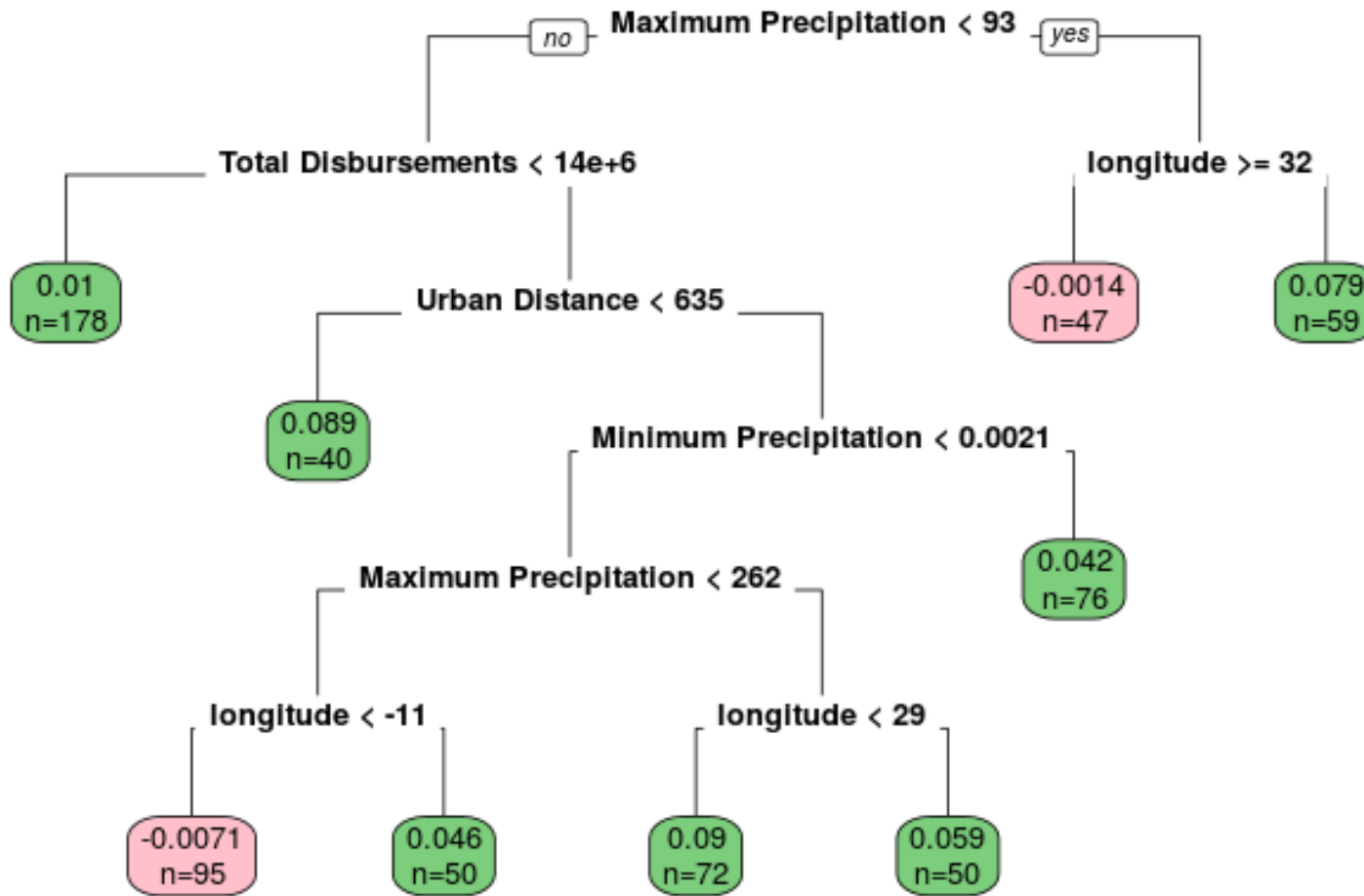


"Best Match  
Control"



## LAND DEGRADATION

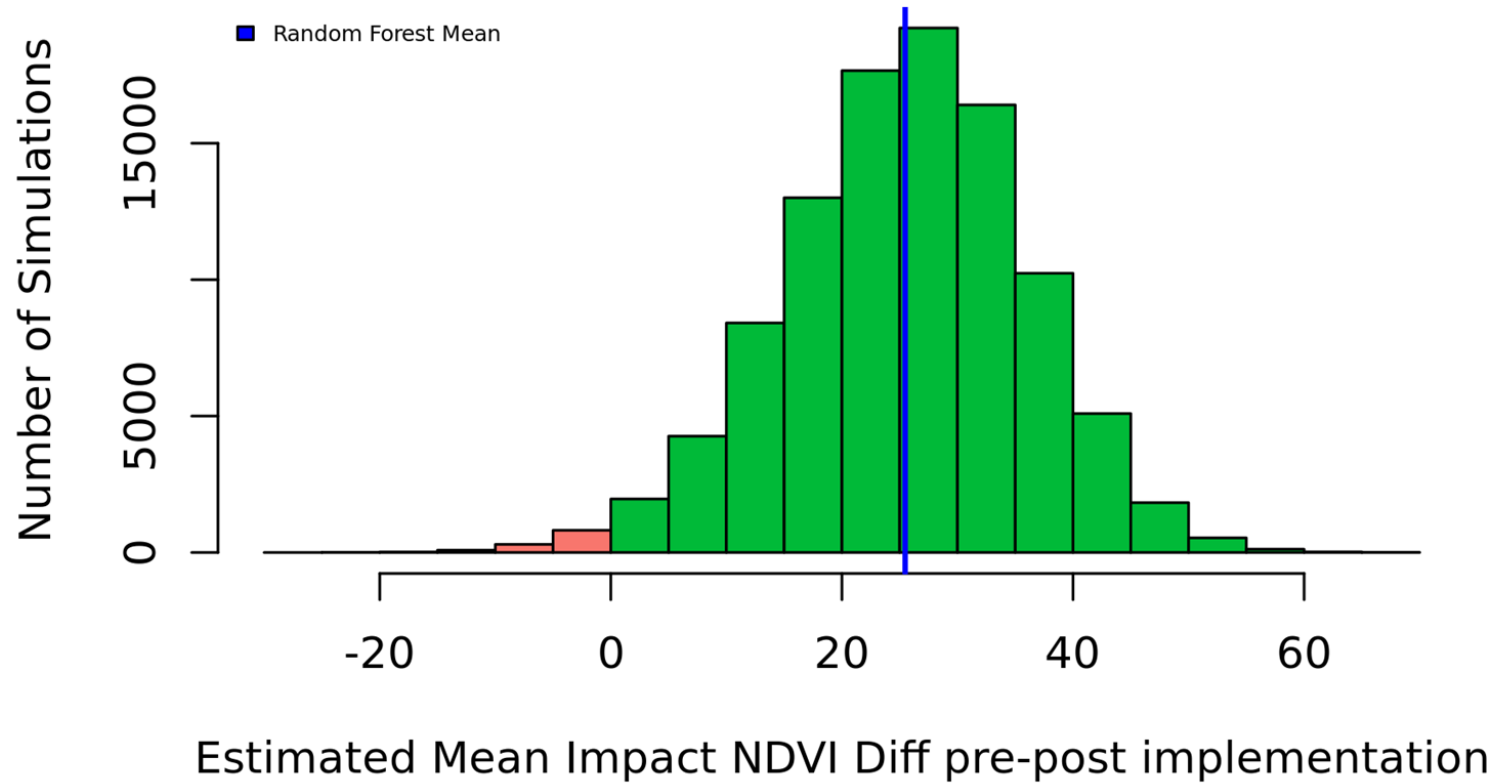
# Machine learning and causal tree



## LAND DEGRADATION

# Repeated model simulation

### Model Uncertainty





**LAND DEGRADATION**

**Finding: value for money**



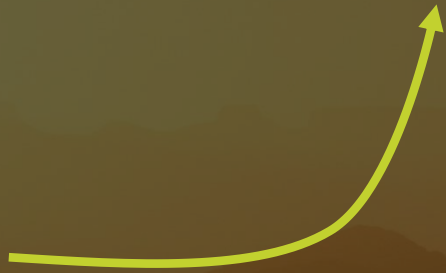
**Vegetation  
productivity**



**forest loss and  
land fragmentation**

## LAND DEGRADATION

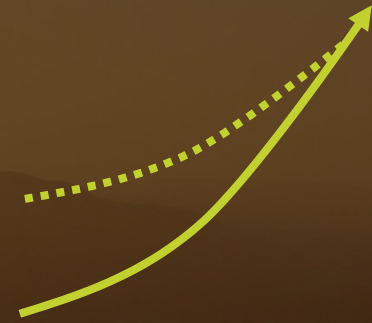
# Findings: value for money



Lag time of  
4.5 to 5.5 years for  
impacts to be  
observed



Access to electricity  
associated with higher  
impact

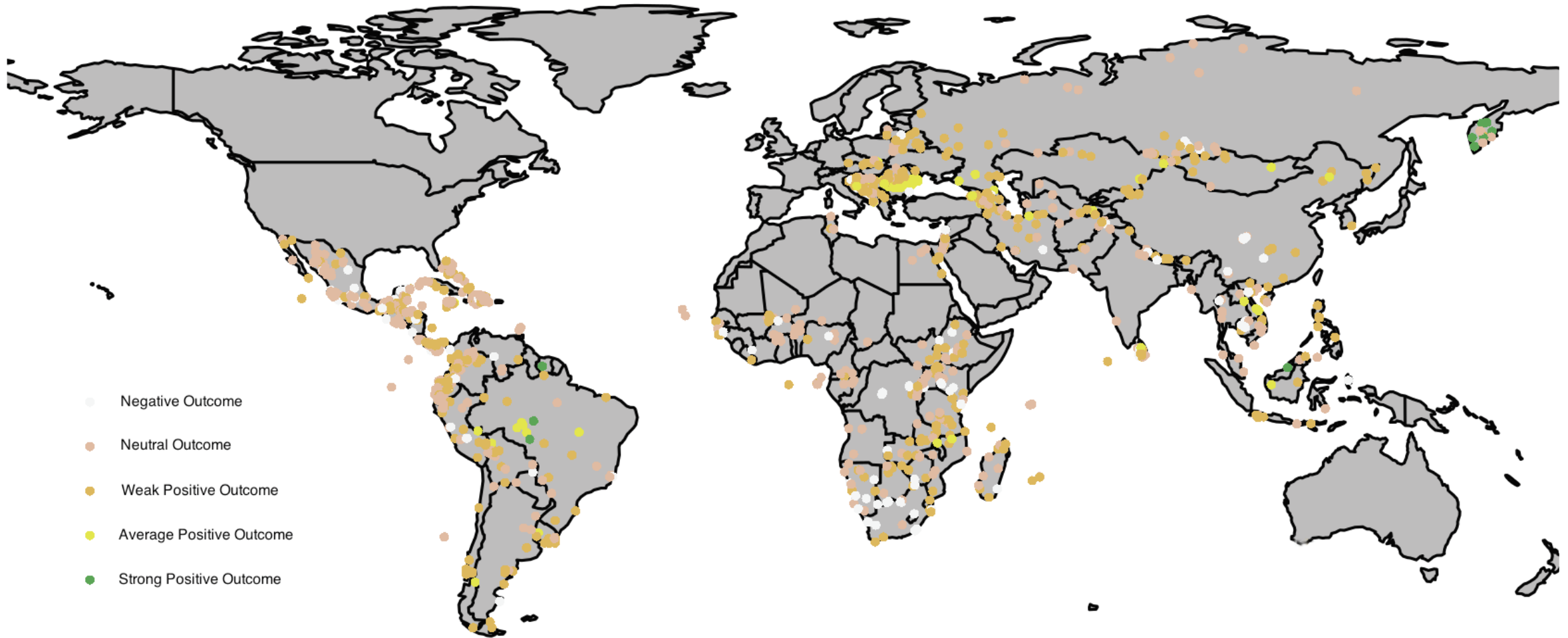


Higher impact observed  
in areas with poor initial  
conditions

## LAND DEGRADATION

# Bang for the buck

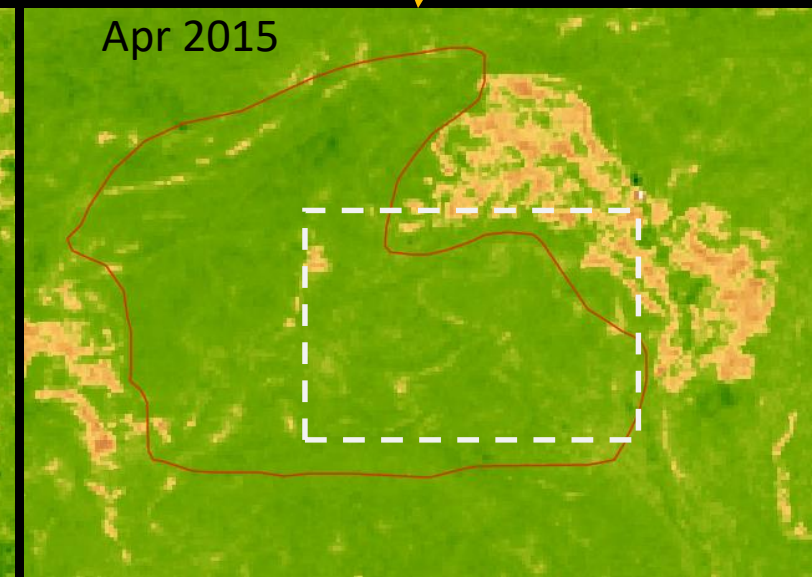
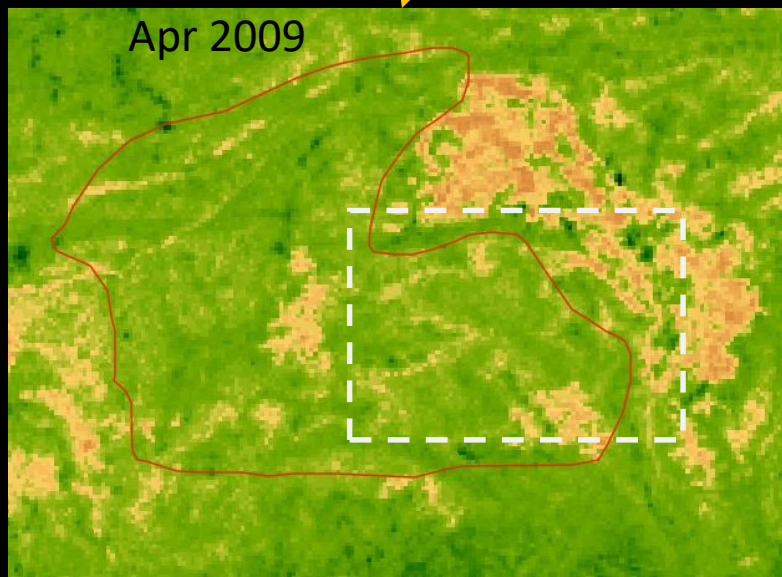
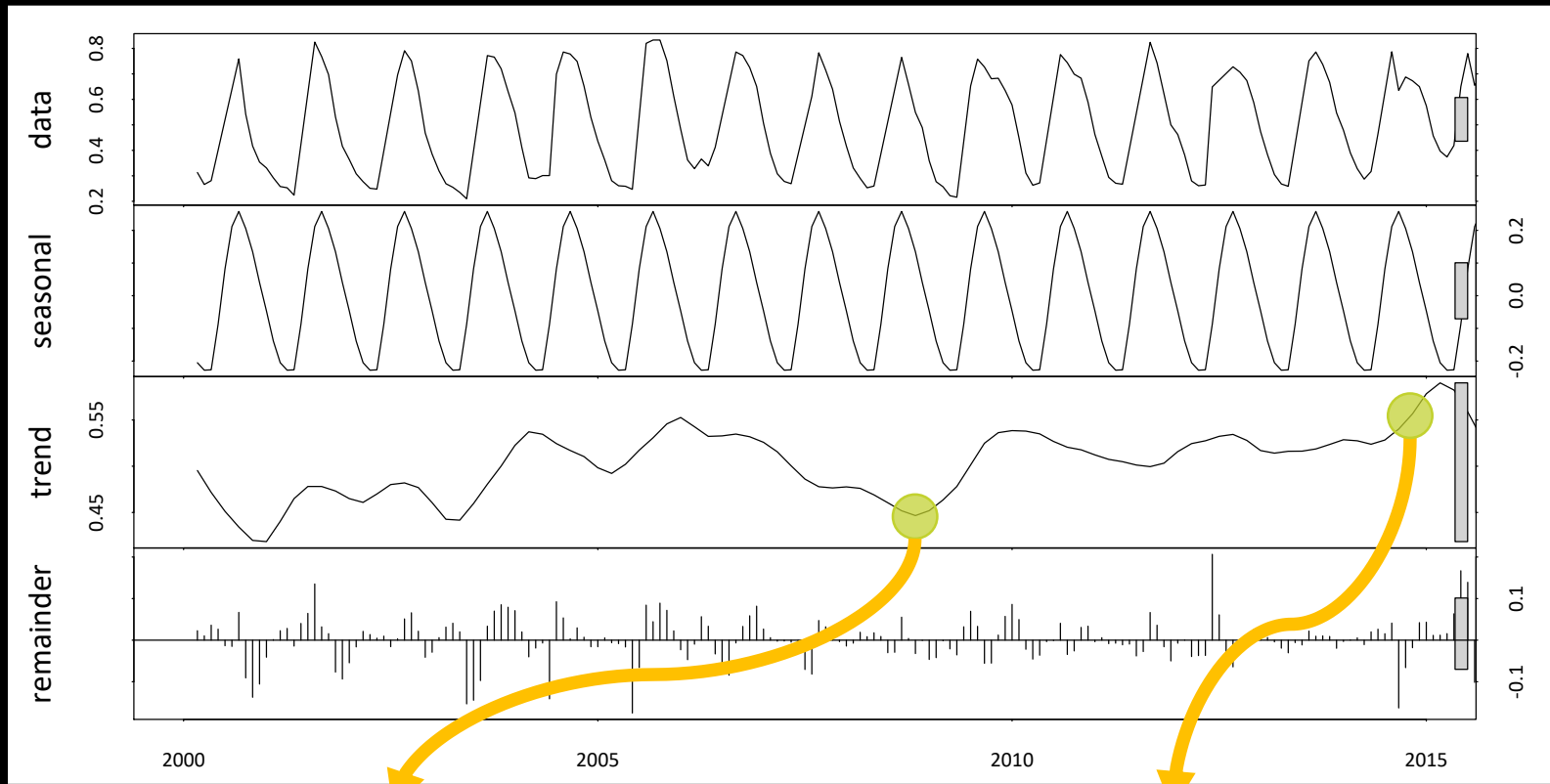
**\$1:1.08**



# Impact assessment Mixed methods and triangulation of findings



**Impact assessment**  
**Mixed methods and**  
**triangulation of**  
**findings**



## LAND DEGRADATION

# Lessons for the future



**Partner with  
global institutions**

**Use mixed  
approaches and  
methods**



**Continue exploring  
new technology**

**Approach evaluation as  
a dynamic learning  
process**





Thank you

<http://www.gefieo.org/>

GEF ID 2369, IFAD  
Haba Lake NNR, Ningxia