



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

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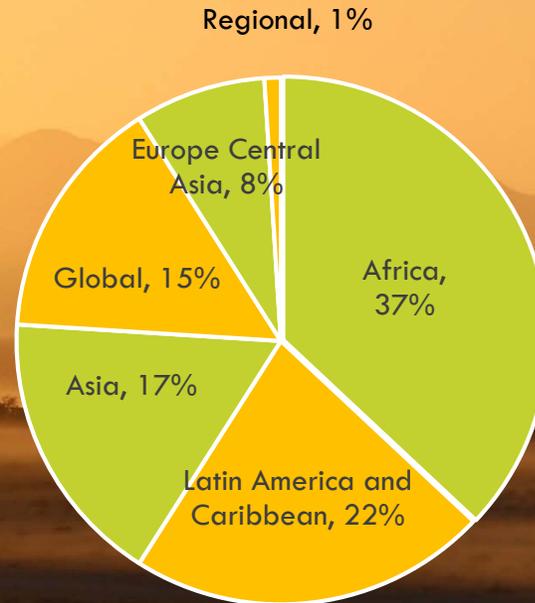
COP13 in Ordos, China – 6 -16 September 2017

LAND DEGRADATION

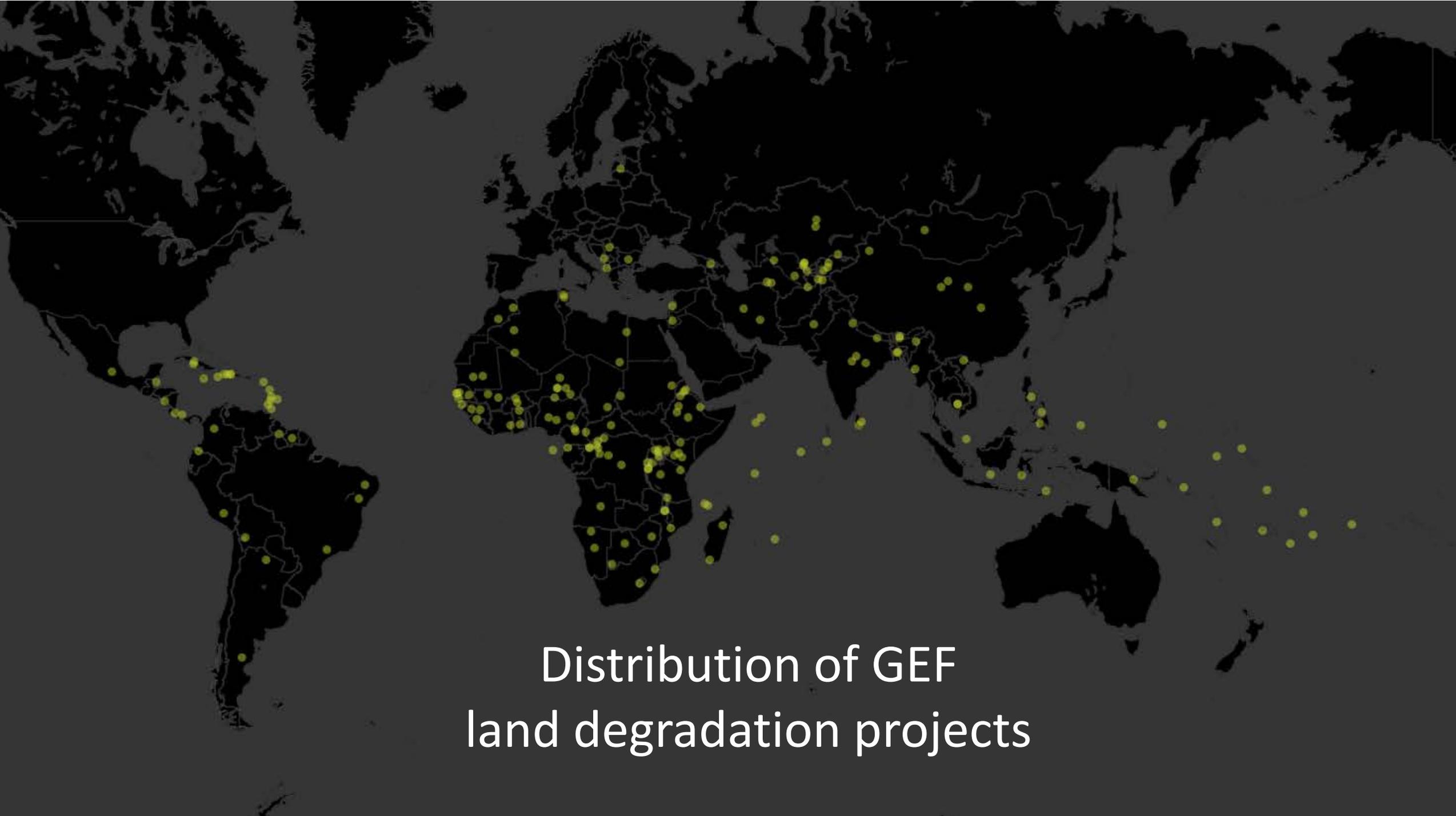
Portfolio

\$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

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Value for money analysis: 3 main objectives

1

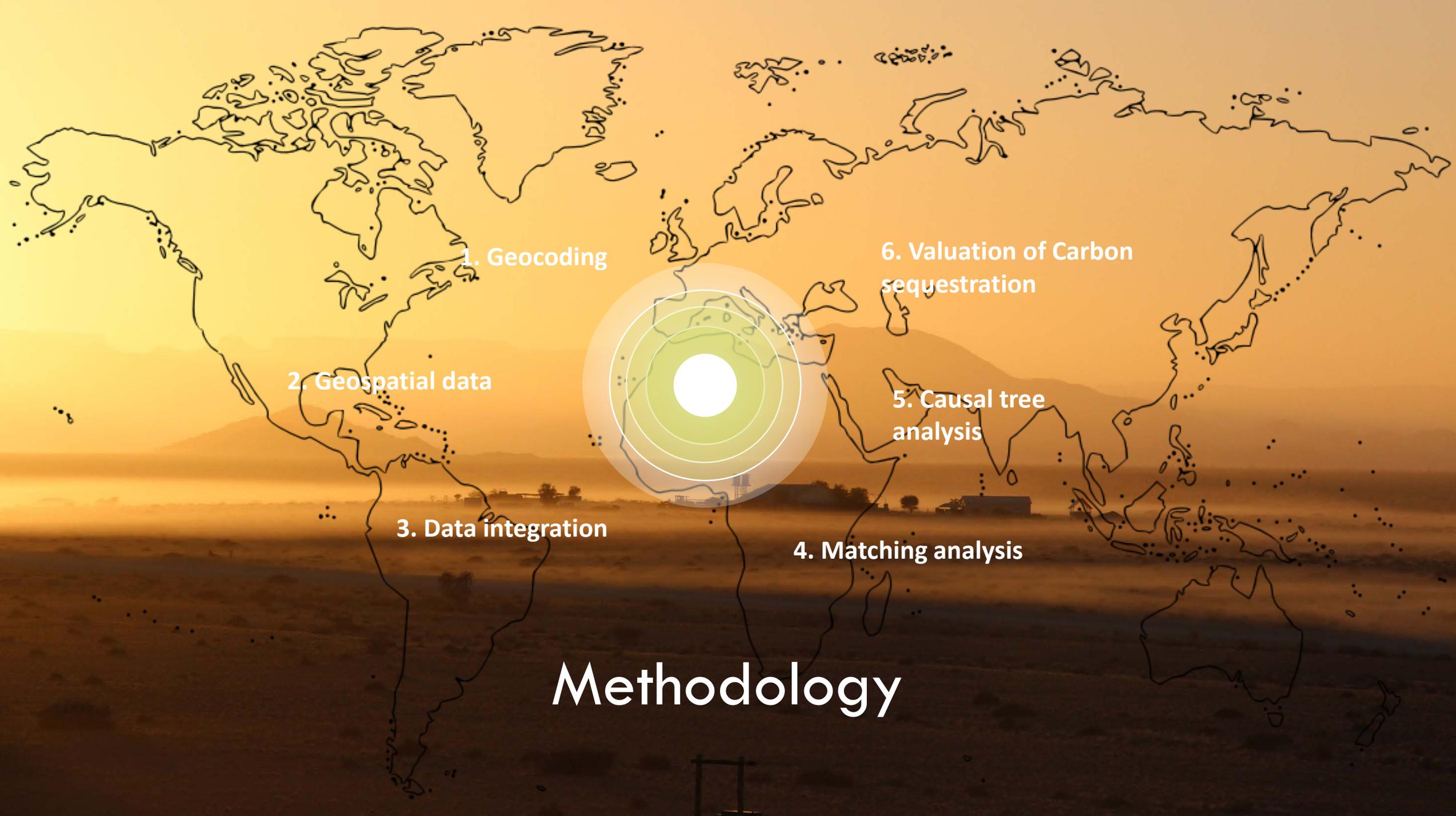
Impact of GEF land degradation interventions?

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

5. Causal tree analysis

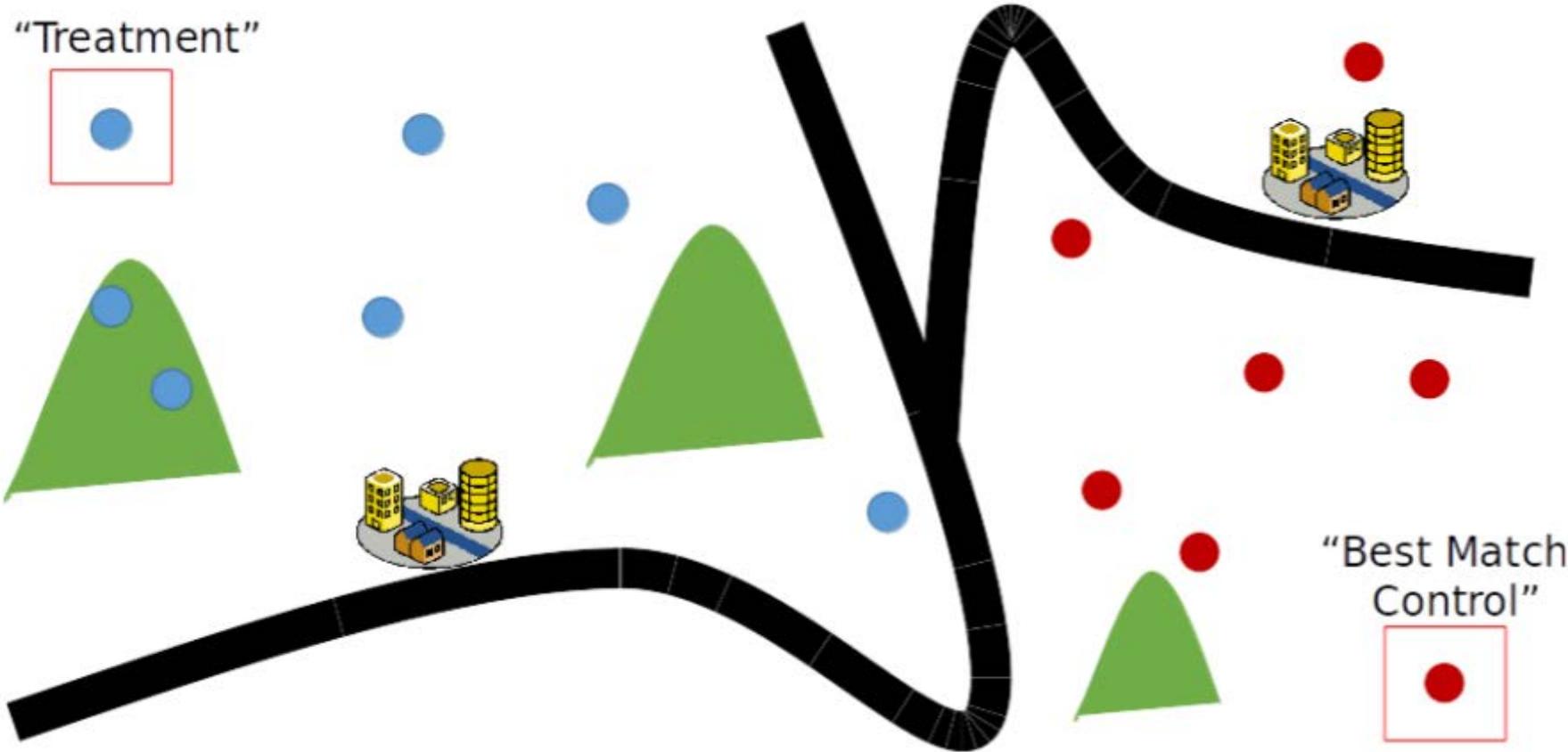
6. Valuation of Carbon sequestration

Methodology

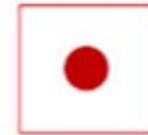
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Quasi-experimental method

"Treatment"

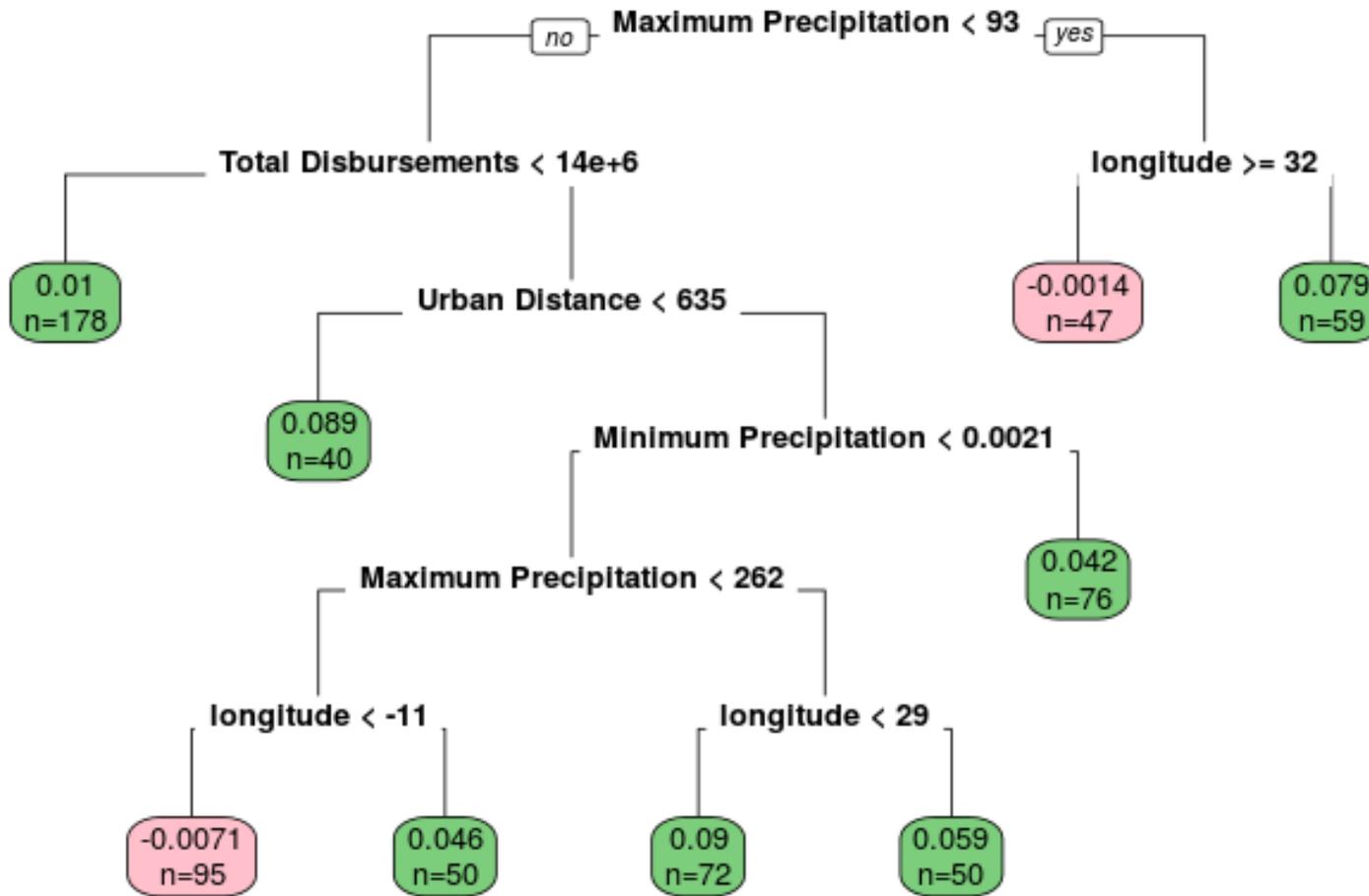


"Best Match
Control"



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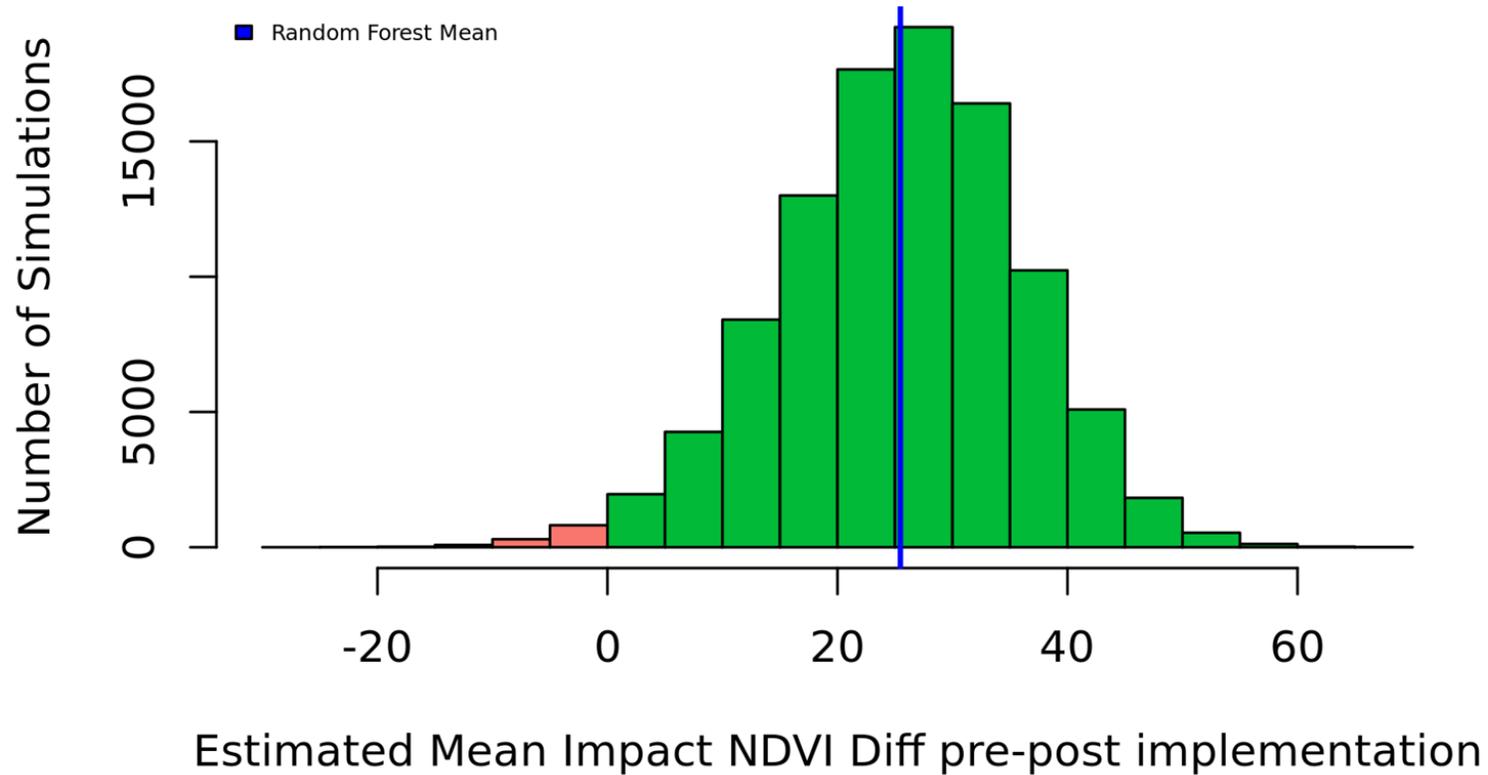
Machine learning and causal tree



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Repeated model simulation

Model Uncertainty



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Finding: value for money



**Vegetation
productivity**



**forest loss and
land fragmentation**

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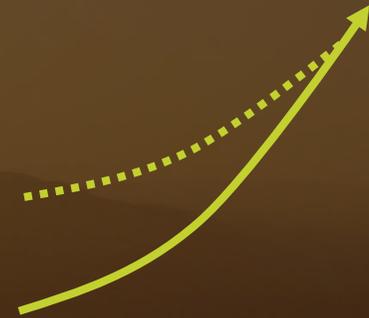
Findings: value for money



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



Access to electricity
associated with higher
impact

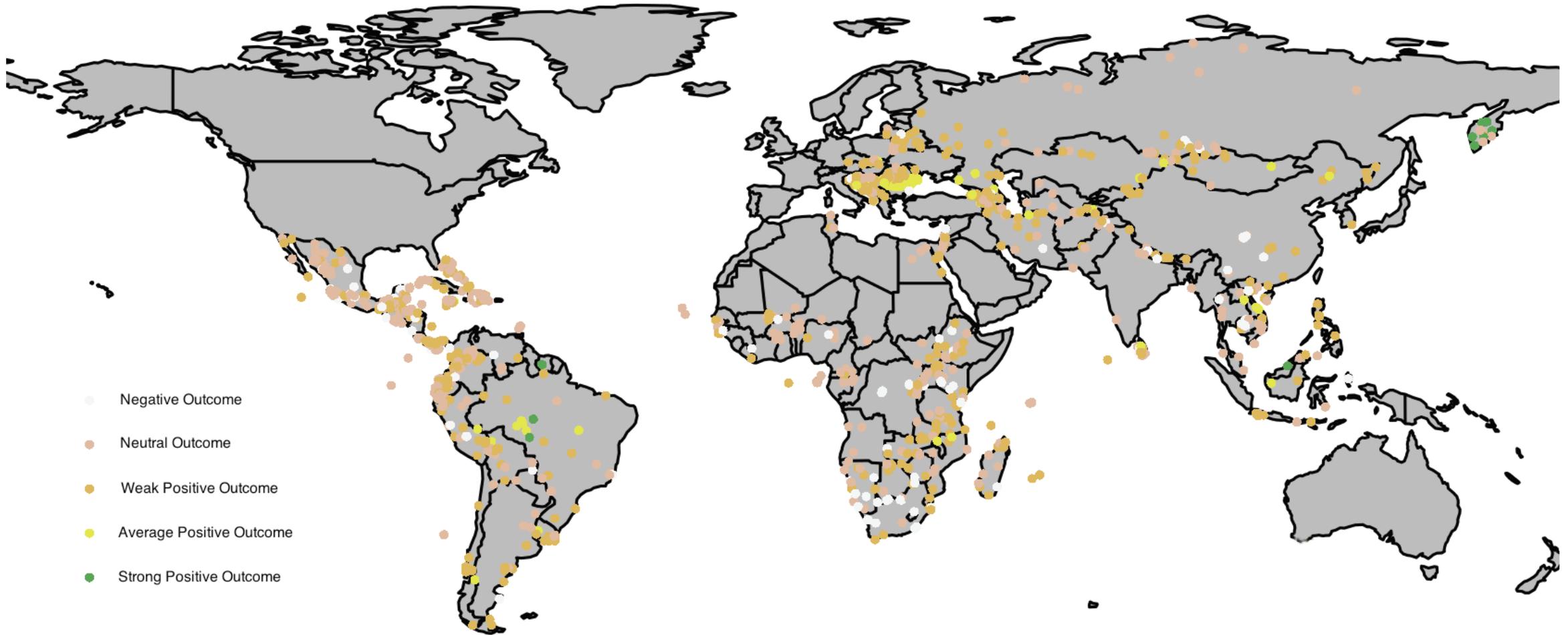


Higher impact observed
in areas with poor initial
conditions

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Bang for the buck

\$1:1.08



Impact assessment

Mixed methods and triangulation of findings



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Lessons for the future



**Partner with
global institutions**

**Use mixed
approaches and
methods**



**Continue exploring
new technology**

**Approach evaluation as
a dynamic learning
process**



A wide-angle photograph of a natural landscape. The foreground is filled with tall, green grasses. The middle ground is dominated by a dense field of green bushes and small trees. The background shows a flat horizon line under a clear, bright blue sky. The overall scene is peaceful and natural.

Thank you

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