



Restoring tropical dry forests, where? how?: a global overview



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Tropical dry forest

- ❑ 3 - 8 months of drought (< 100 mm)
- ❑ Deciduous vegetation
- ❑ High number of endemic species
- ❑ One of the most threaten terrestrial ecosystems



Caatinga



Dry evergreen forest



Bushland



Woodland



Forest-savanna mosaic



Bushveld



Thicket



Colombian dry forest

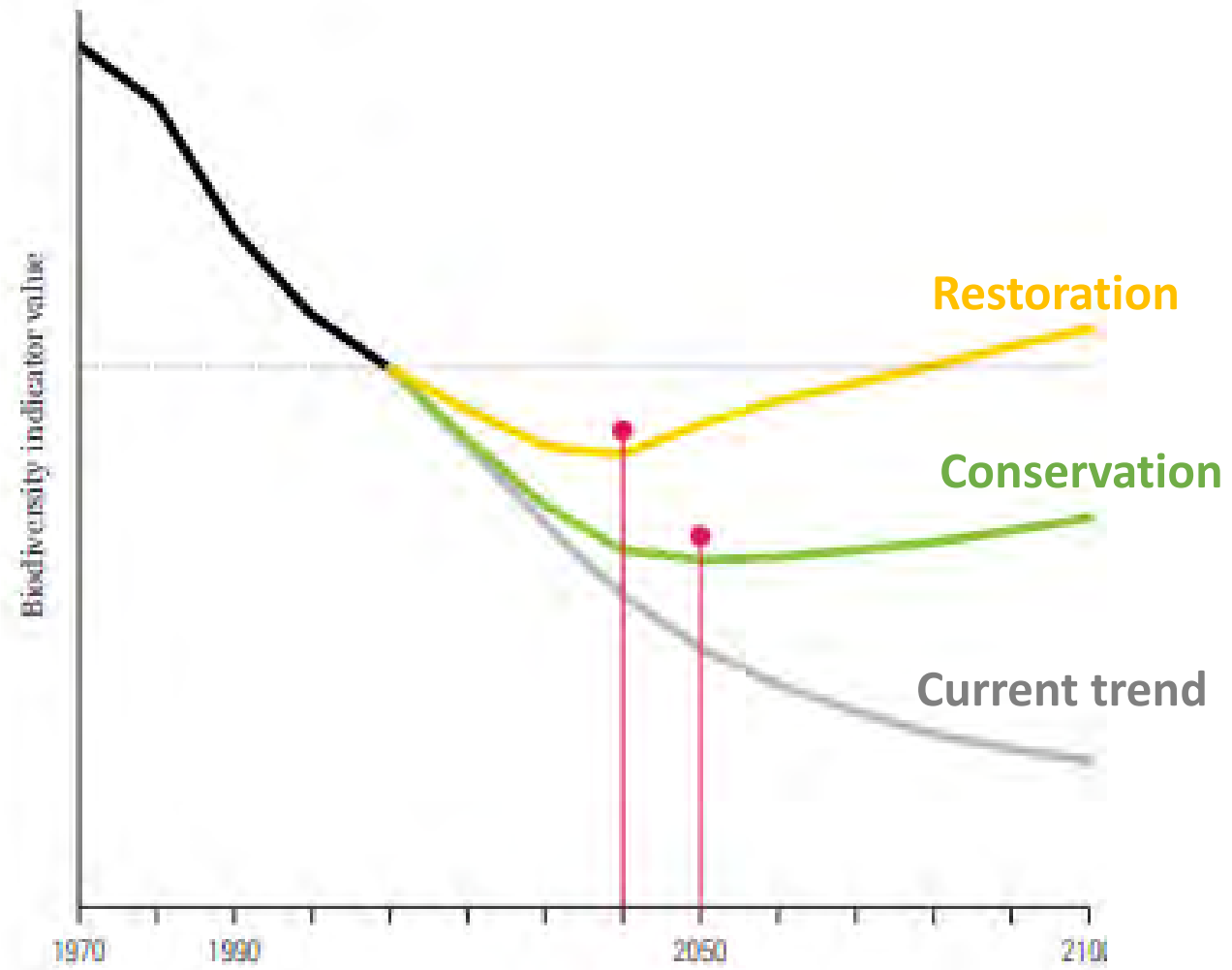
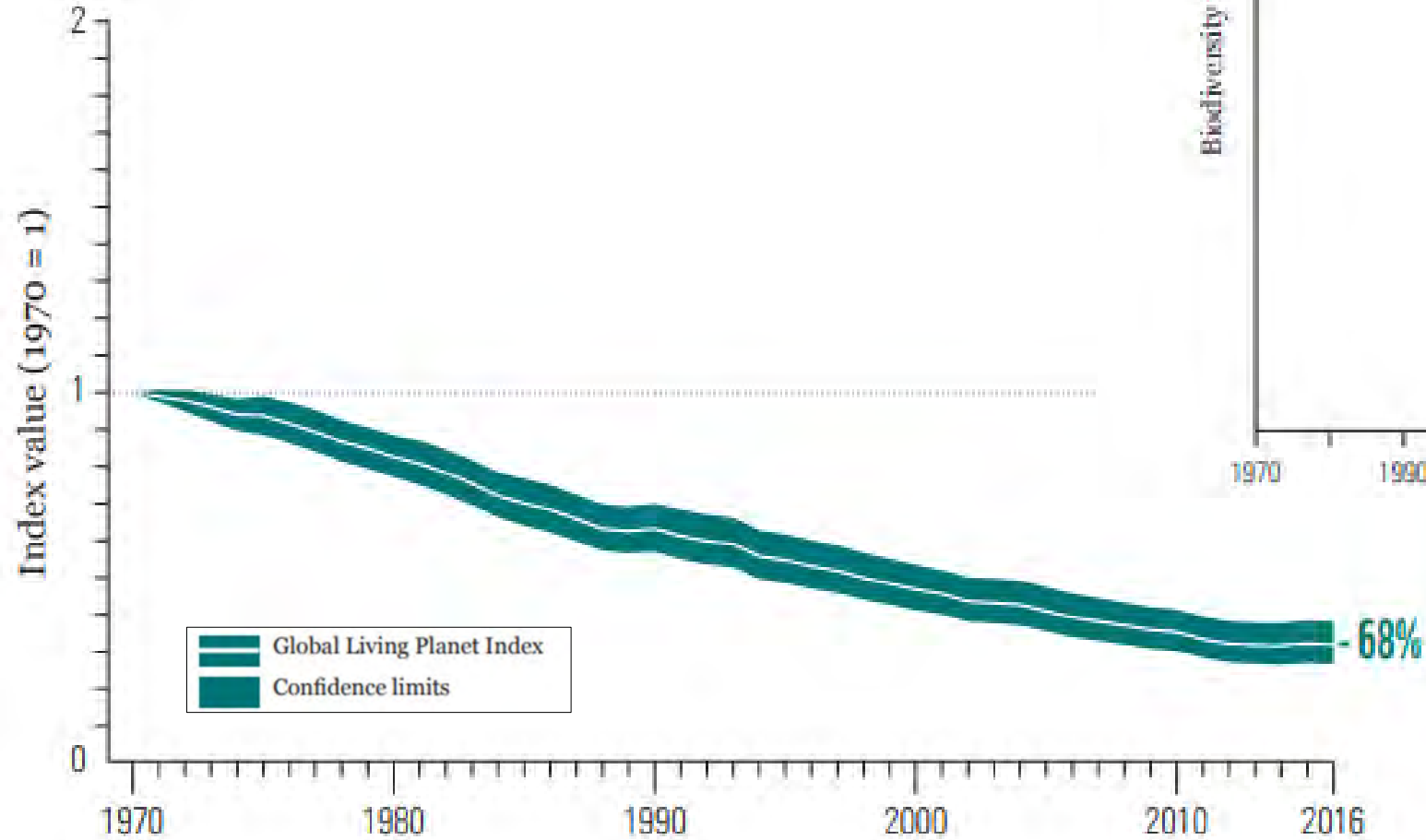


Cerrado



LIVING PLANET REPORT 2020

BENDING THE CURVE OF BIODIVERSITY LOSS



METHODS



WEB OF SCIENCE



Timeframe →
1990 - 2020

Metanalysis → LnR → Effect size of restoration

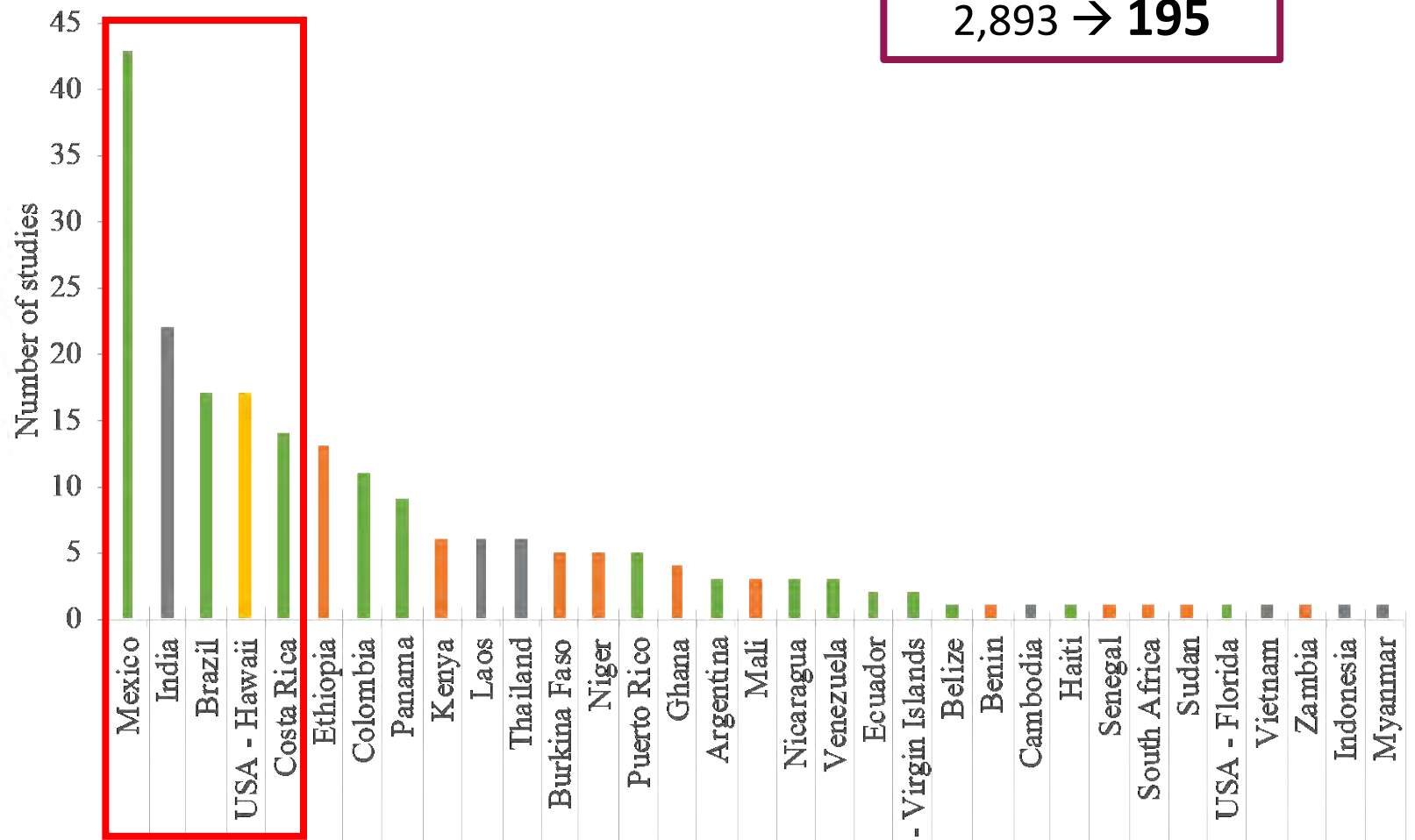
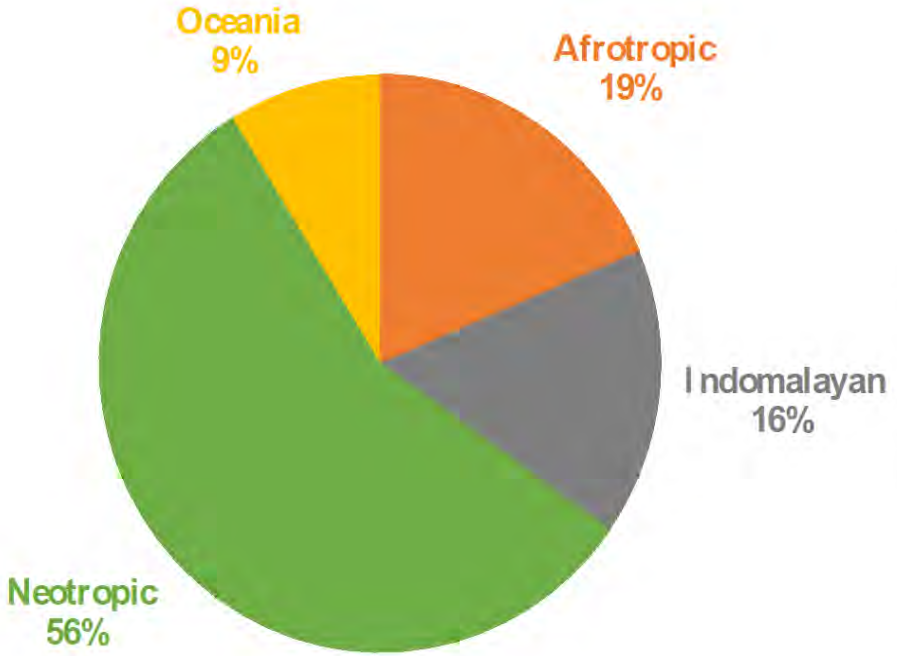




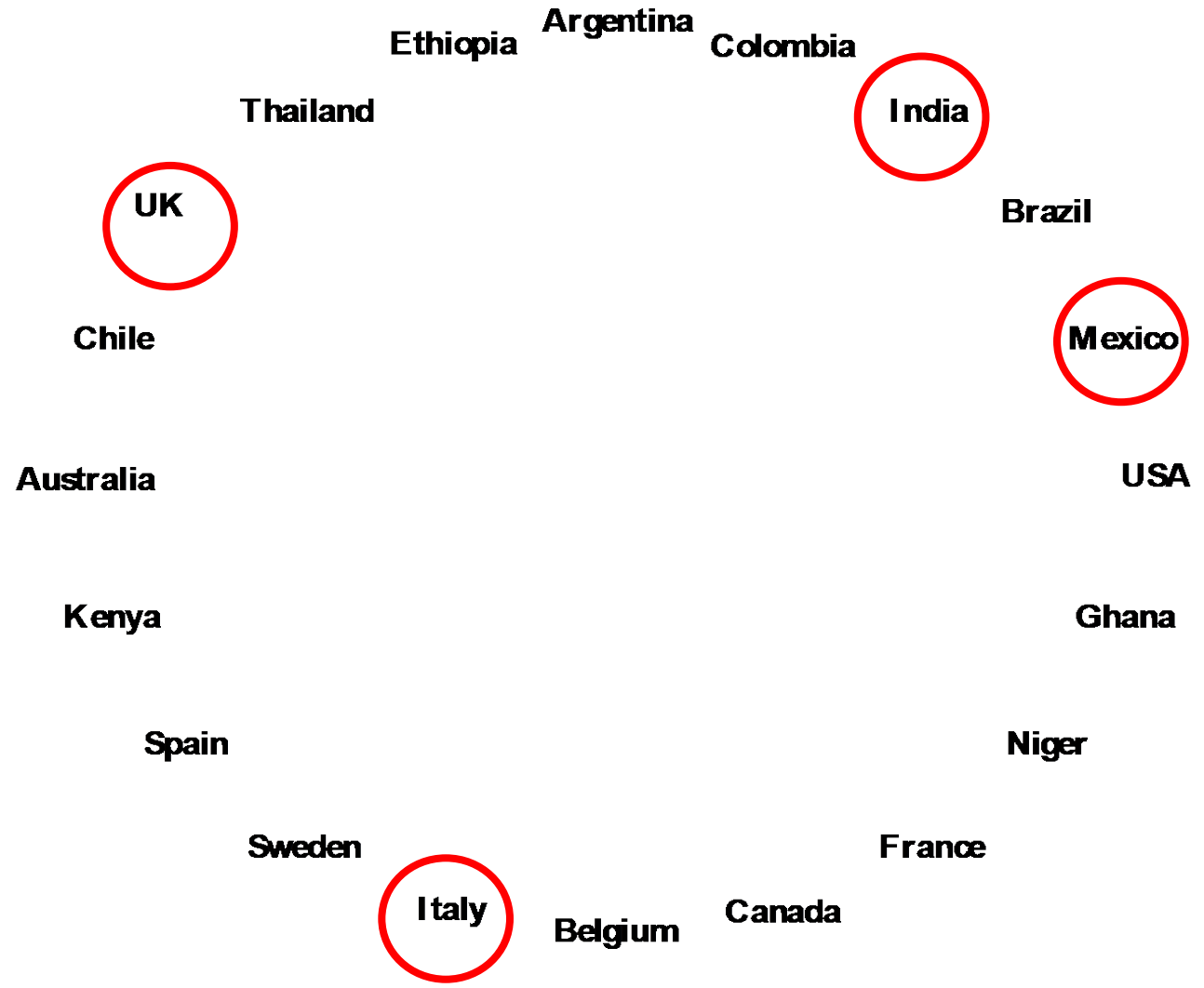
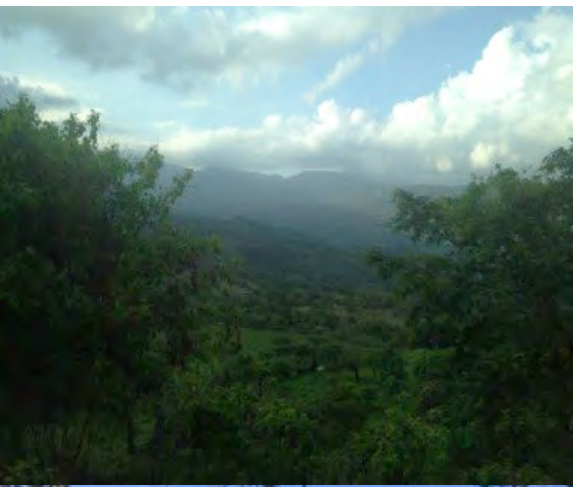
RESULTS & DISCUSSION



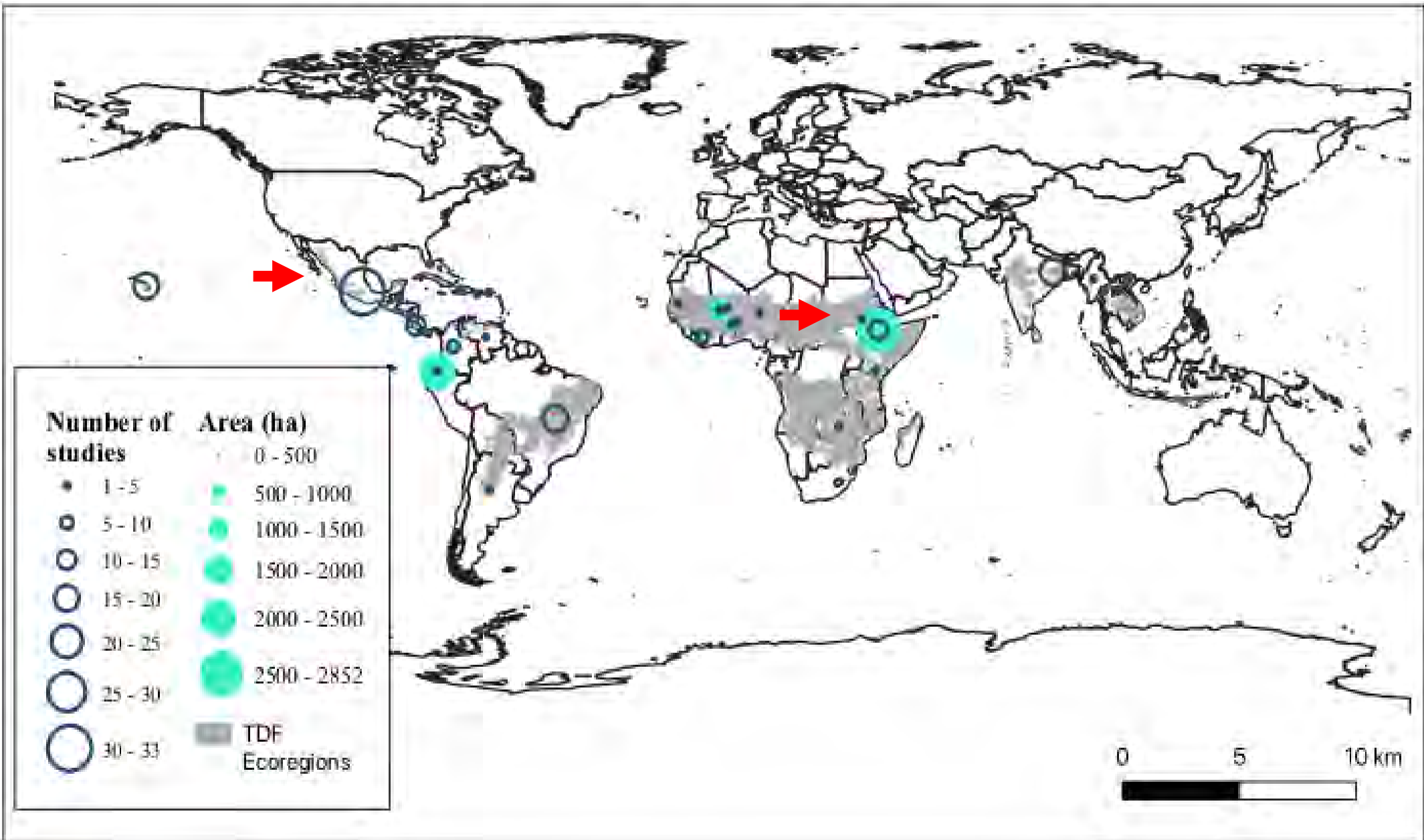
Number of studies
2,893 → **195**



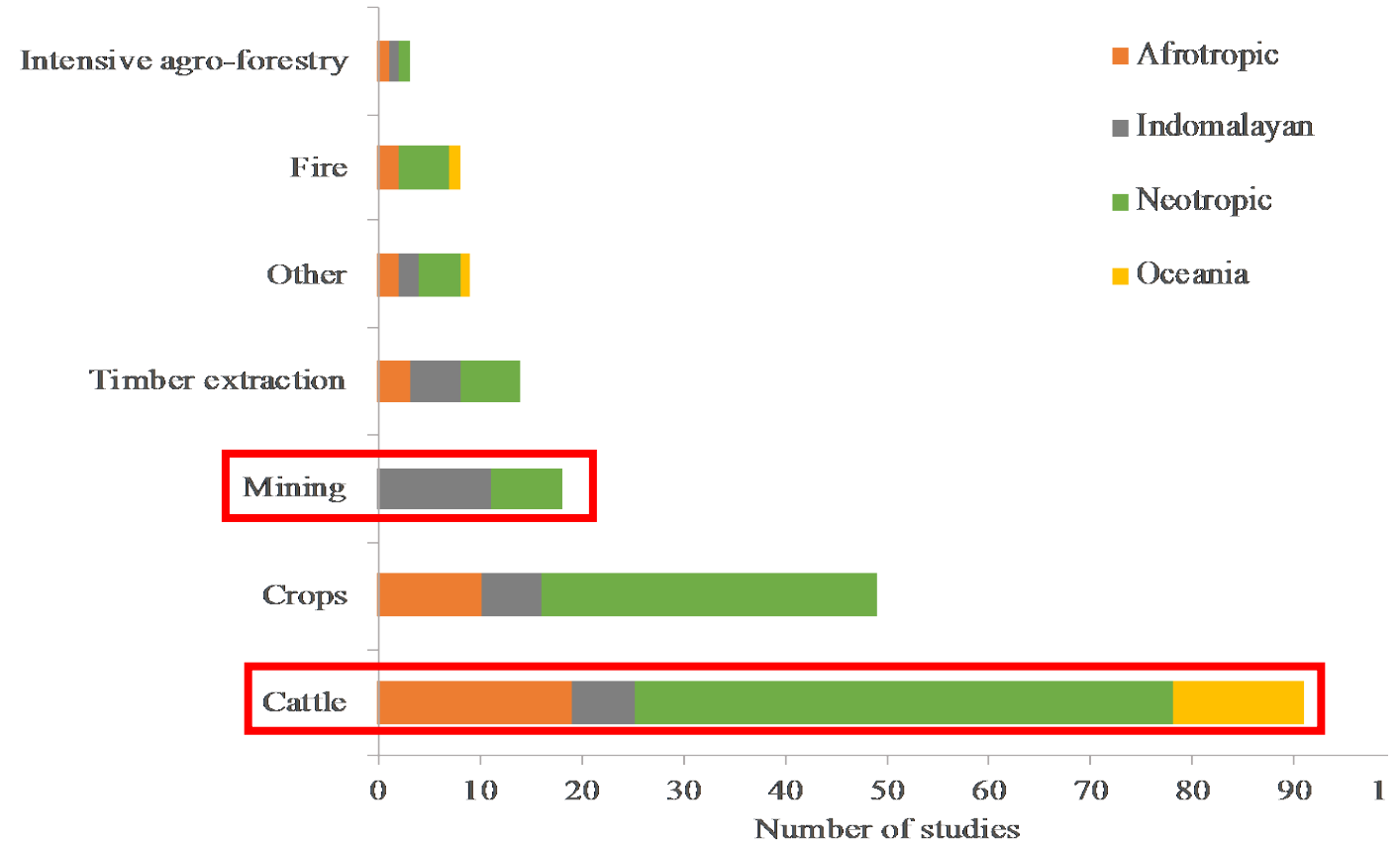
Number of sites	37	15	13	11	5	14	9	4	5	1	5	4	3	4	4	4	1	5	2	2	2	1	1	4	1	1	1	1	1	1	1
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Where is TDF restoration occurring?

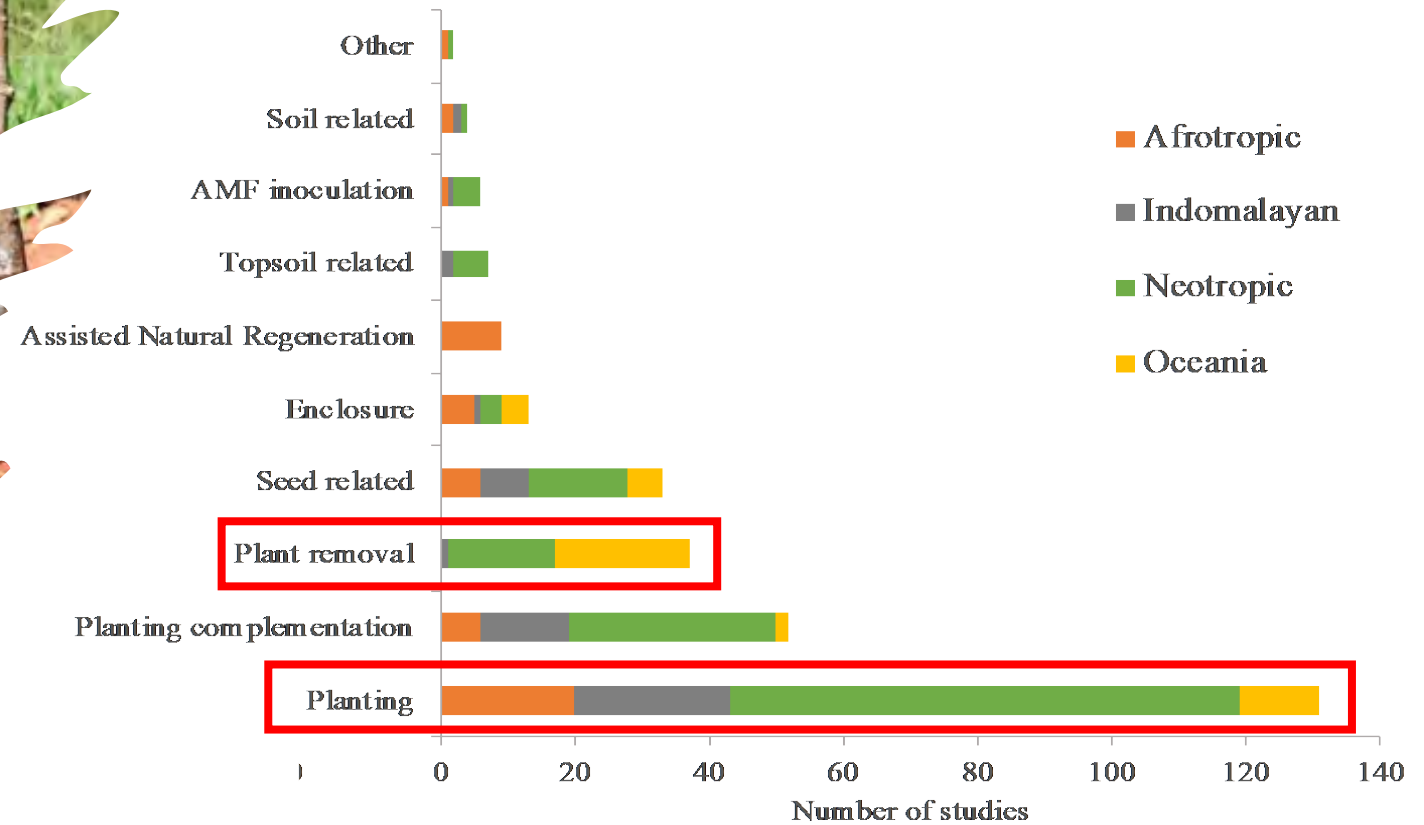


Previous restoration land use





Restoration strategies



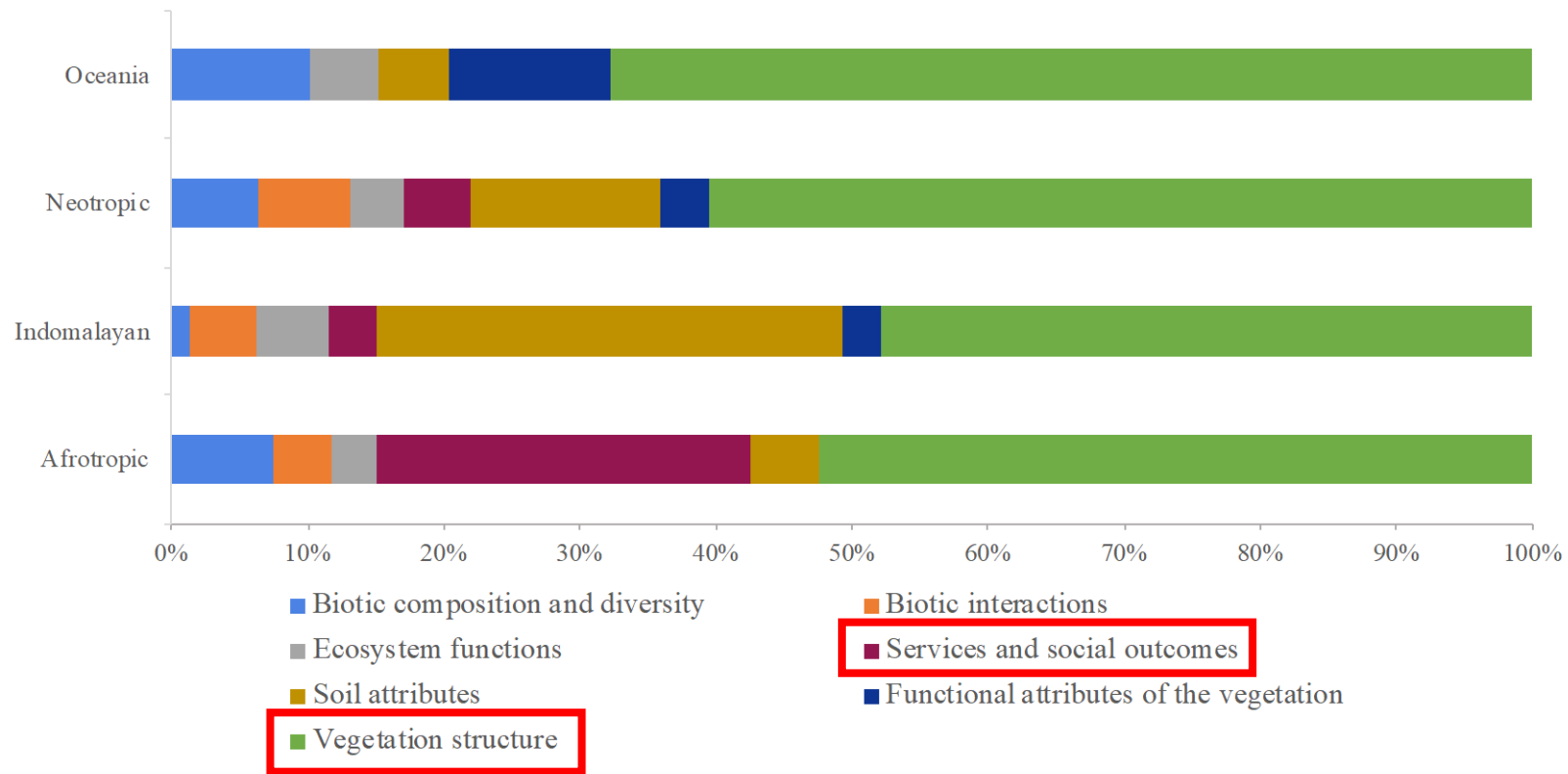
iMeasuring restoration progress!

What doesn't work?

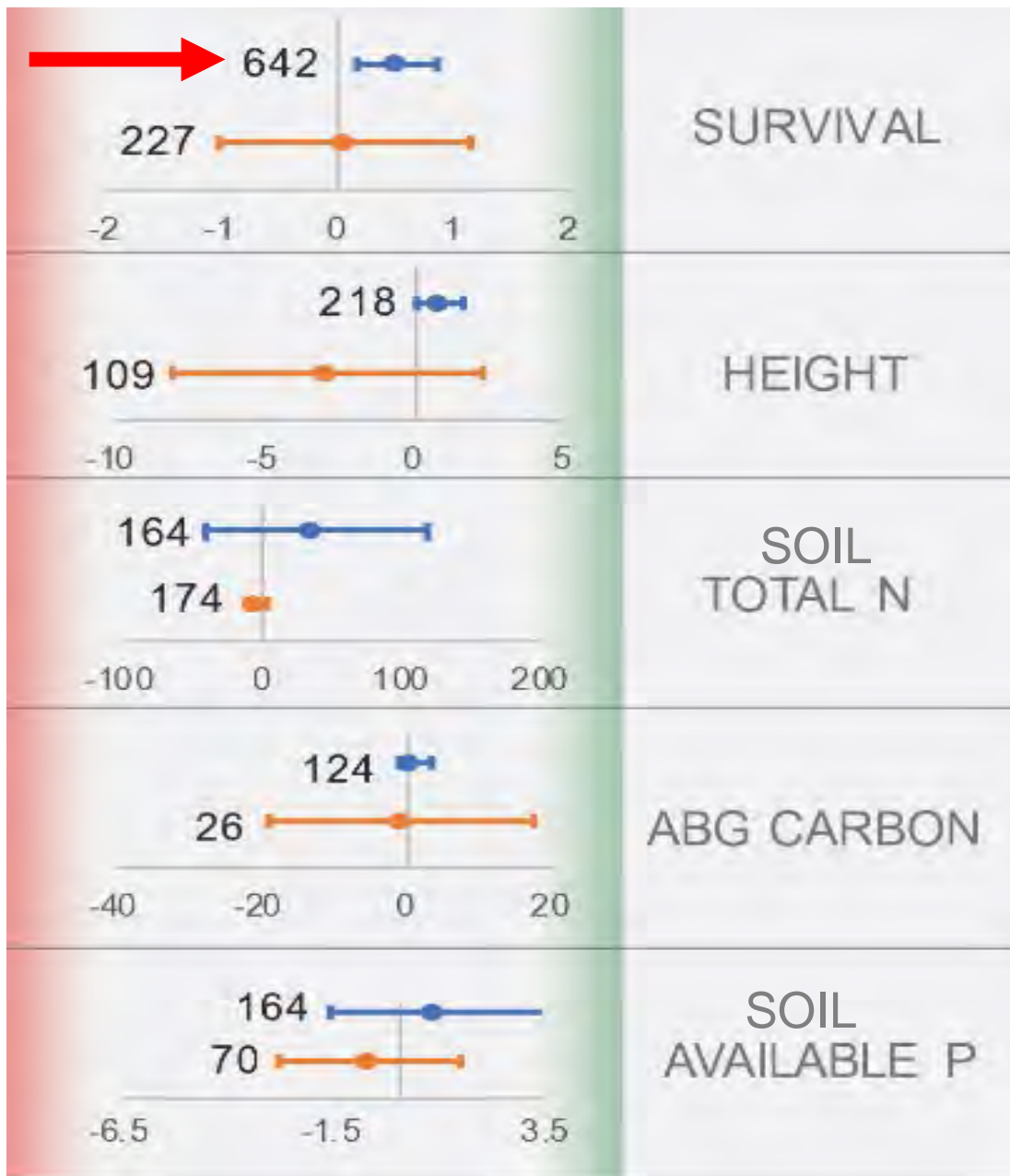
What works?

Why?





	Number of variables
Vegetation structure	25
Functional attributes of the vegetation	9
Ecosystem functions	11
Soil attributes	18
Biotic interactions	12
Biotic composition and diversity	8
Services and social outcomes	15



Comparisons ● vs Control ● vs Reference



- Only 26% of the studies compared their results with another site.
- We selected variables with more than two studies with data.
- Ecozone, land use and restoration strategy
→ Wait for it!

Conclusions

We must seek collaboration → **Avoid** redundant efforts

There is **No** unique strategy that works for all

Plantings → Where? How? What species?

Incorporation of social metrics

Restored plot trajectory ≠ Reference sites →
Rethink reference sites?



Thank you

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