

Combining indicators, targets and policies

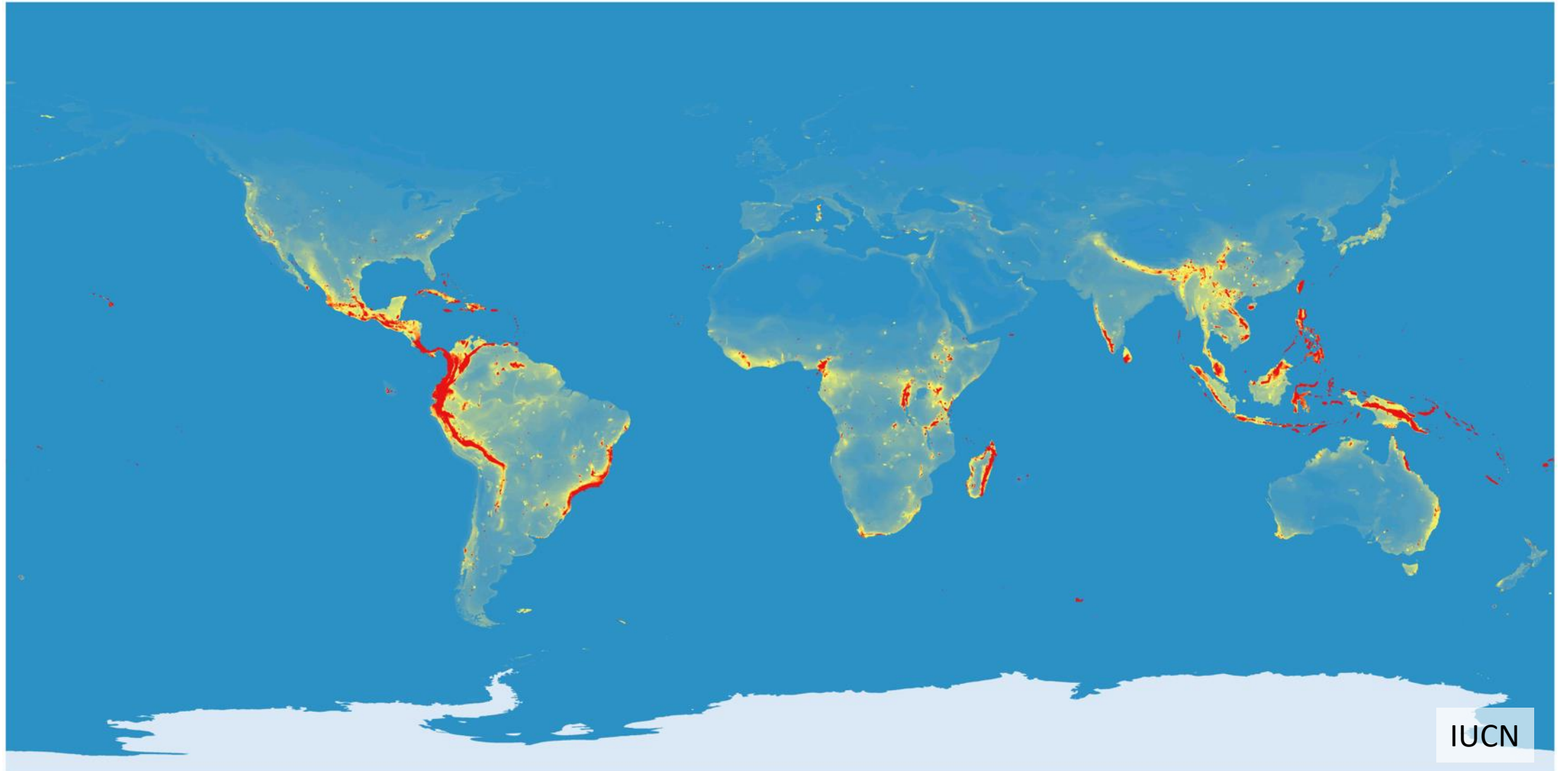
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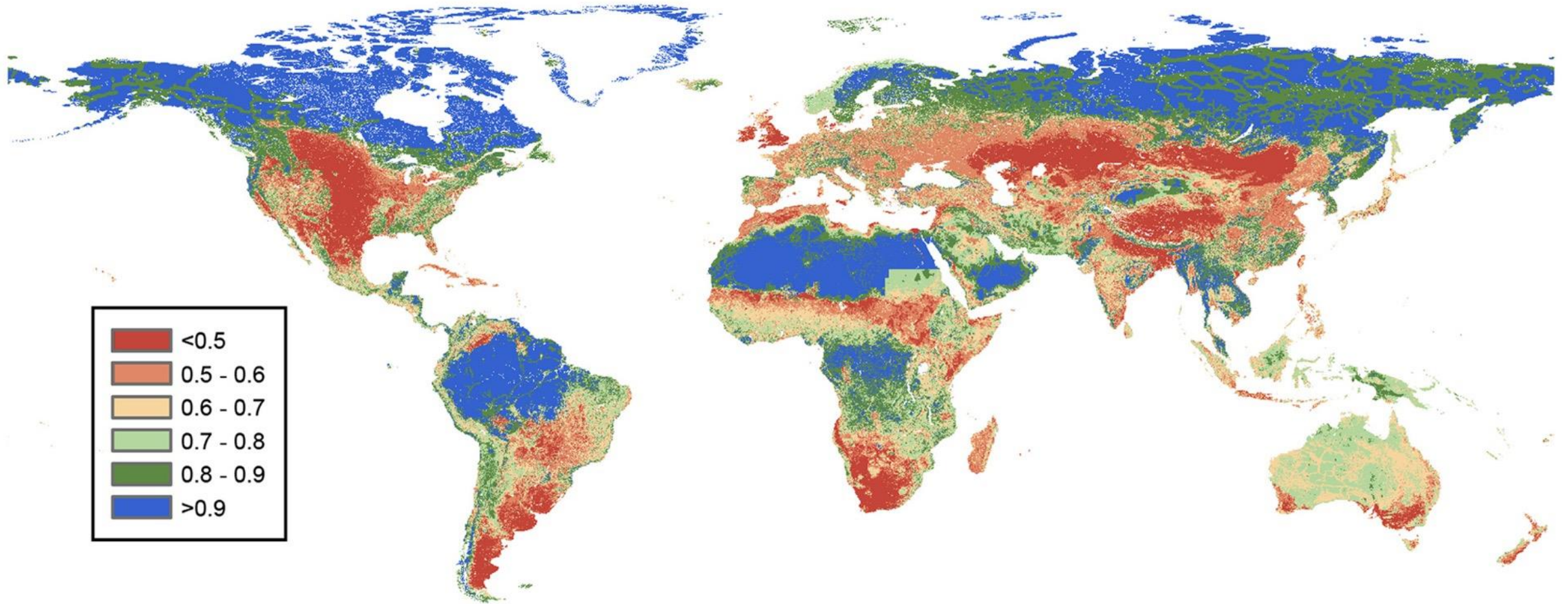
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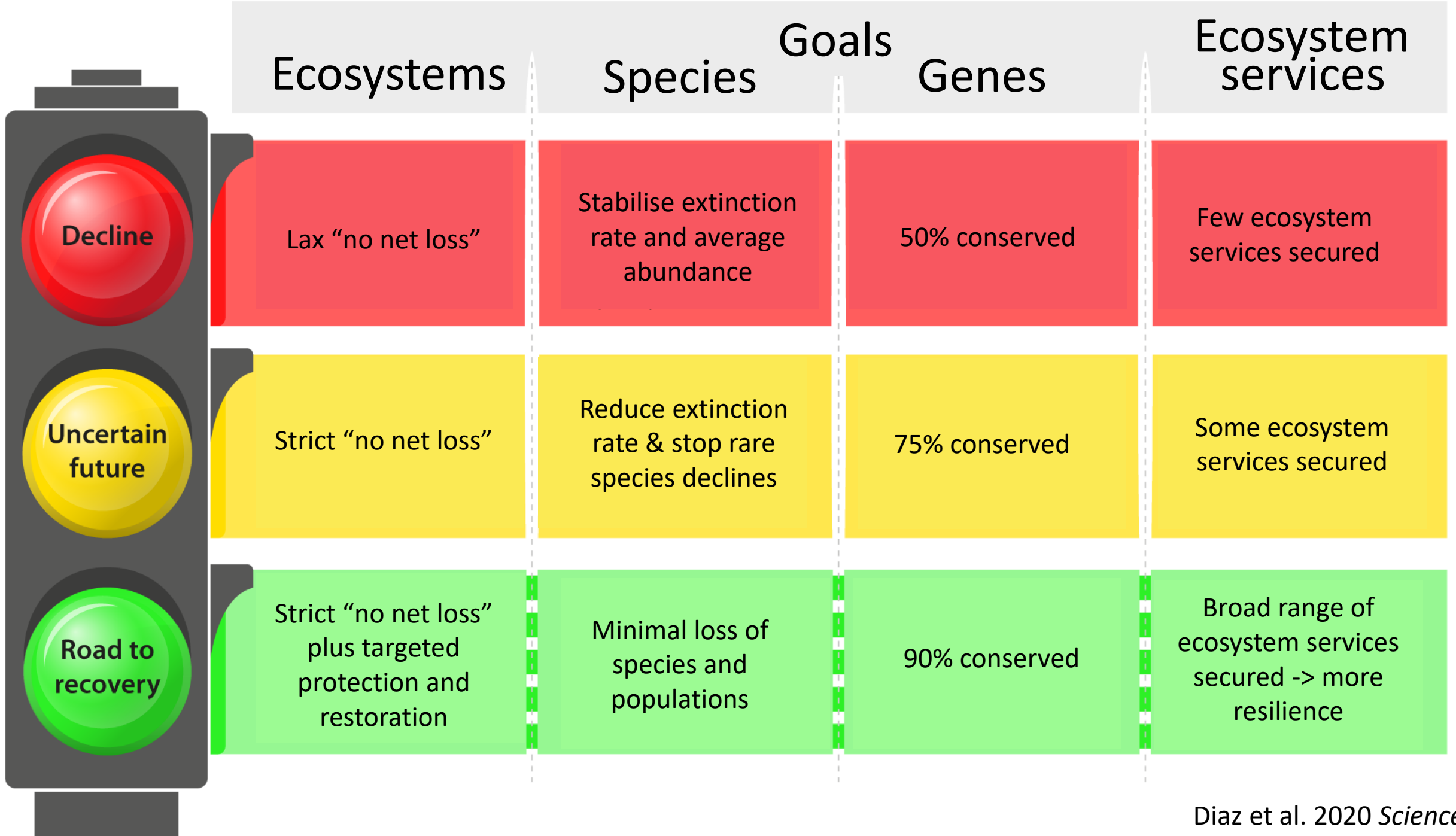
Targets: Focus on saving rare species?



Targets: Focus on healthy ecological communities?



Biodiversity Intactness Index (fraction of natural biodiversity that remains): Sanchez-Ortiz et al. 2019 *bioRxiv*



Goals

Ecosystem services

Ecosystems

Species

Genes

Decline

Lax "no net loss"

Stabilise extinction rate and average abundance

50% conserved

Few ecosystem services secured

Uncertain future

Strict "no net loss"

Reduce extinction rate & stop rare species declines

75% conserved

Some ecosystem services secured

Road to recovery

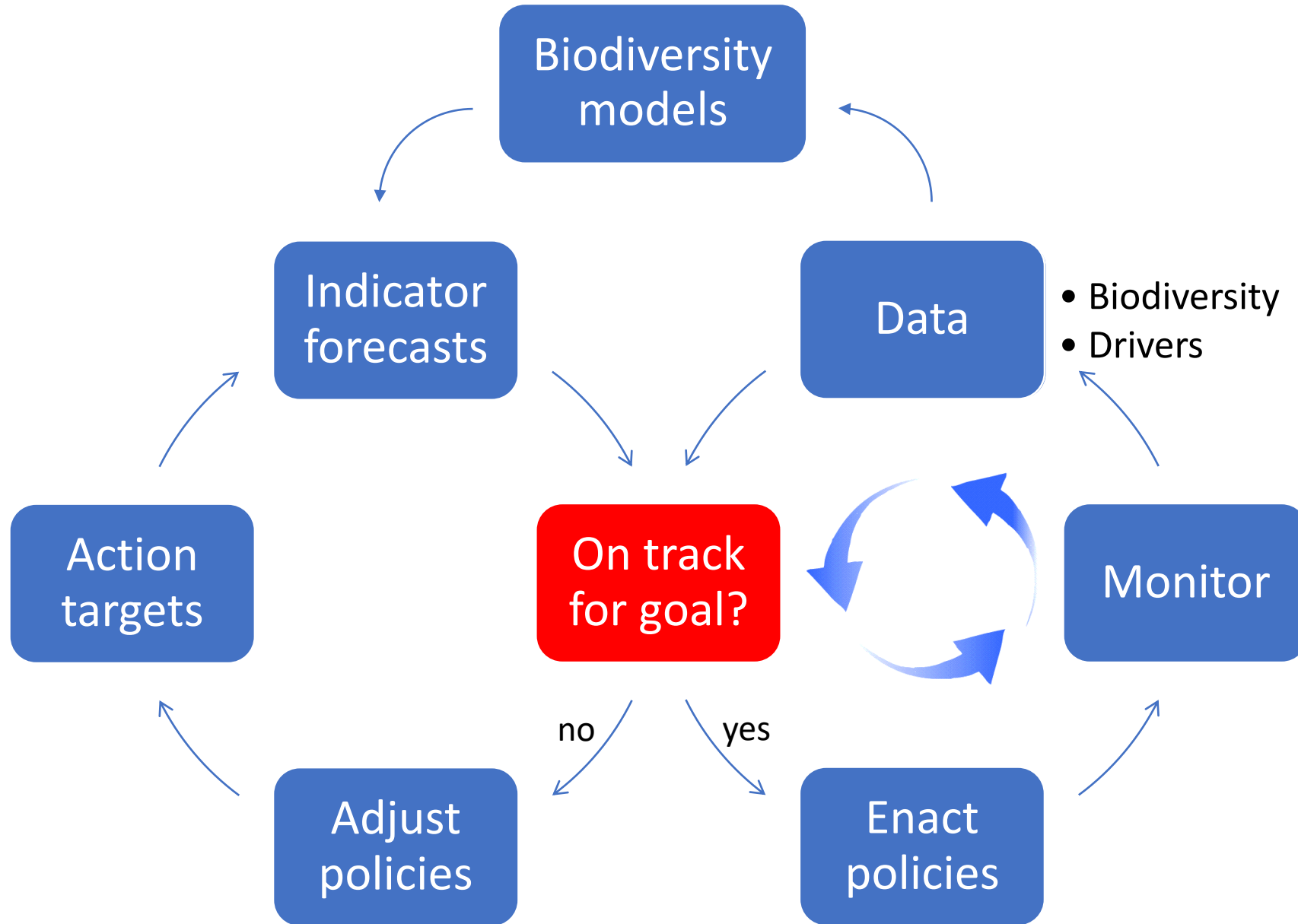
Strict "no net loss" plus targeted protection and restoration

Minimal loss of species and populations

90% conserved

Broad range of ecosystem services secured -> more resilience

Only models can link indicators, targets & policies



Summary

- Nature needs multiple ambitious targets
 - There is no single target that can safeguard biodiversity
 - Only a coherent set of ambitious targets can possibly do so
- Within-country targets and indicators are extremely dangerous
 - Most of the damage UK does to global biodiversity is done at a distance
 - Increasing UK biodiversity is not worth extinctions elsewhere
- Only models can link indicators, targets and policies
 - We have to speed up the monitoring/modelling/projecting cycle
 - Otherwise we cannot control our trajectory through the Anthropocene
 - The models will keep improving: they are already our best bet