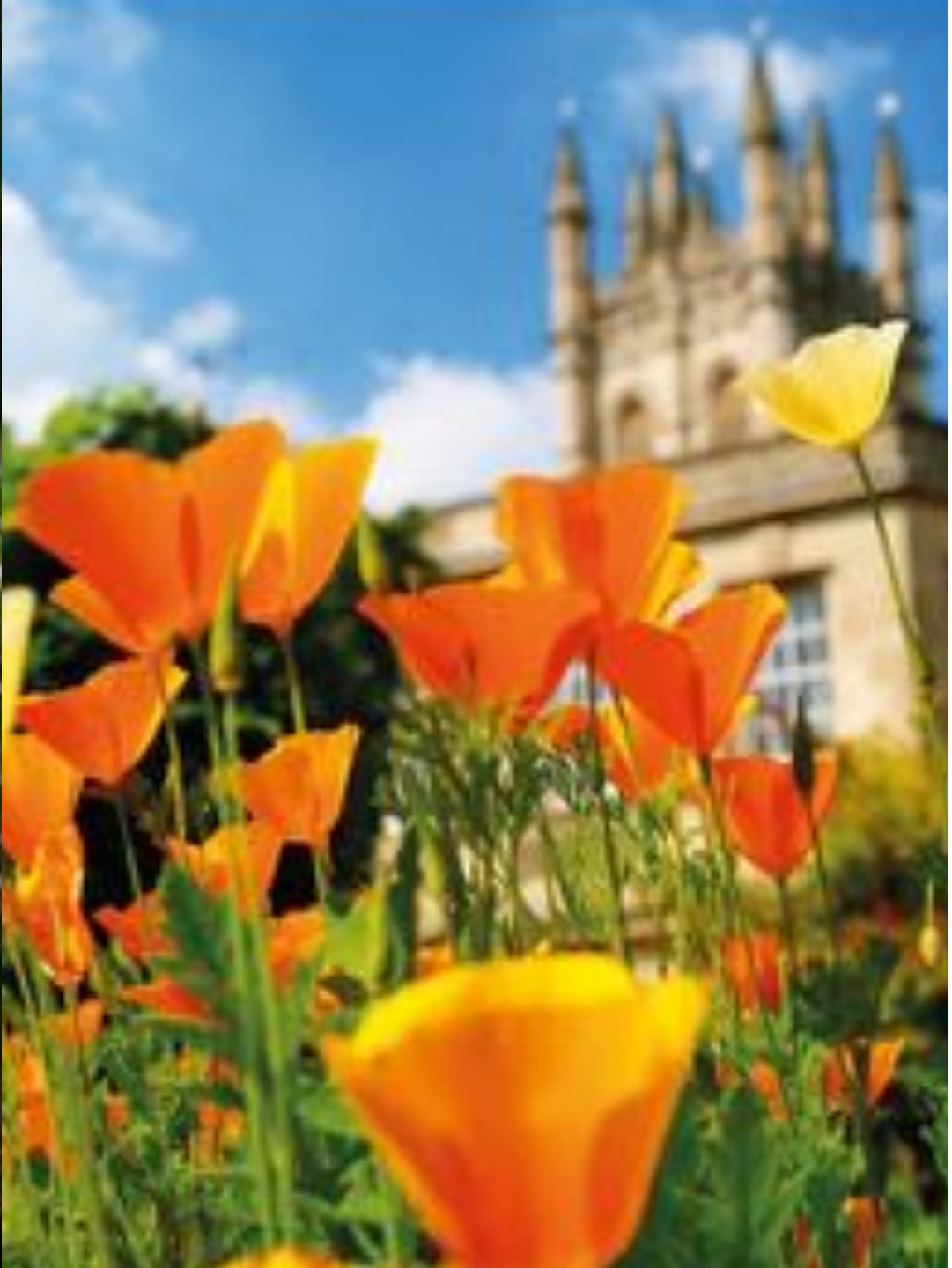

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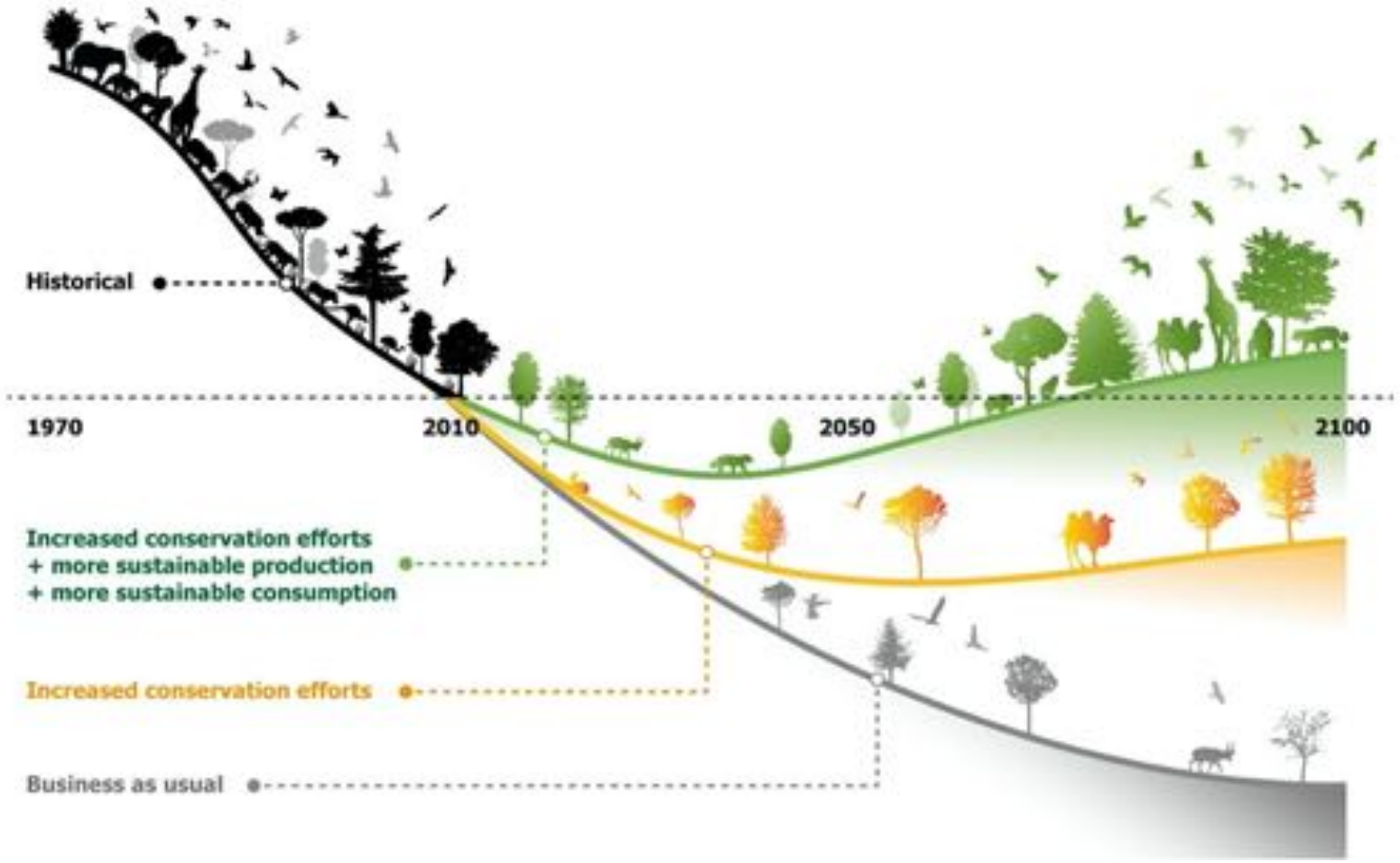
Nature Positive: fact or fiction?

Joe W Bull

Credit: J W Bull

Credit: J W Bull

Nature Positive



Leclère et al. (2020) *Nature*, **585**, 551-556

See also: Bull et al. (2020) *Nature Ecology & Evolution*, **4**(1), 4-7

Nature Positive principles

Nature Positive needs:

- a measured biodiversity baseline
- a timeframe
- a target (e.g. biodiversity 20% above baseline)
- a clear set of actions to be carried out, costed and sequenced
- an analysis of how these actions will add up to get us to net gain
- regular monitoring and disclosure of progress towards our goal

Milner-Gulland (2022) *Nature E&E*, **6**(9), 1243-1244

Nature Positive principles

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- a timeframe
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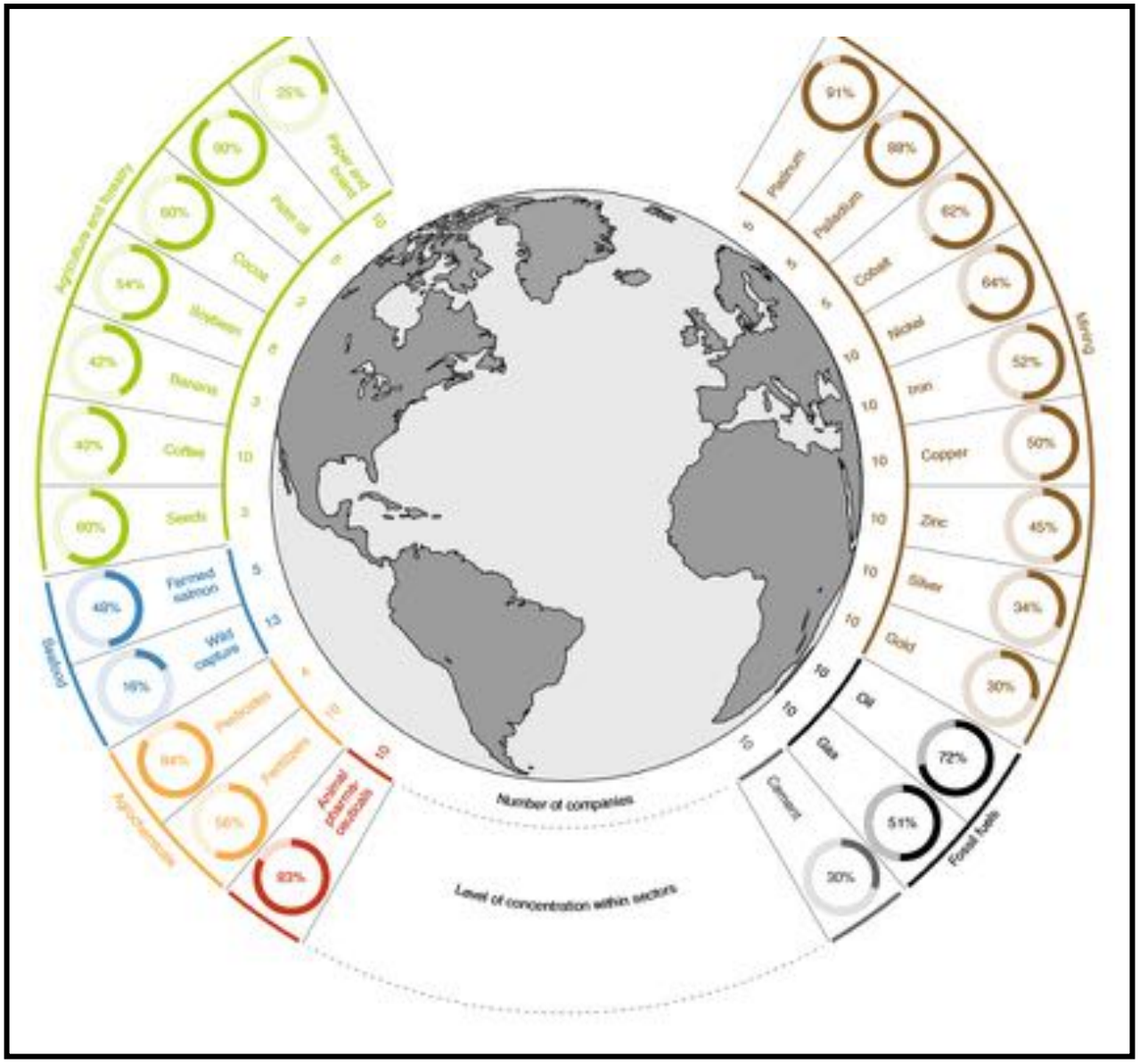
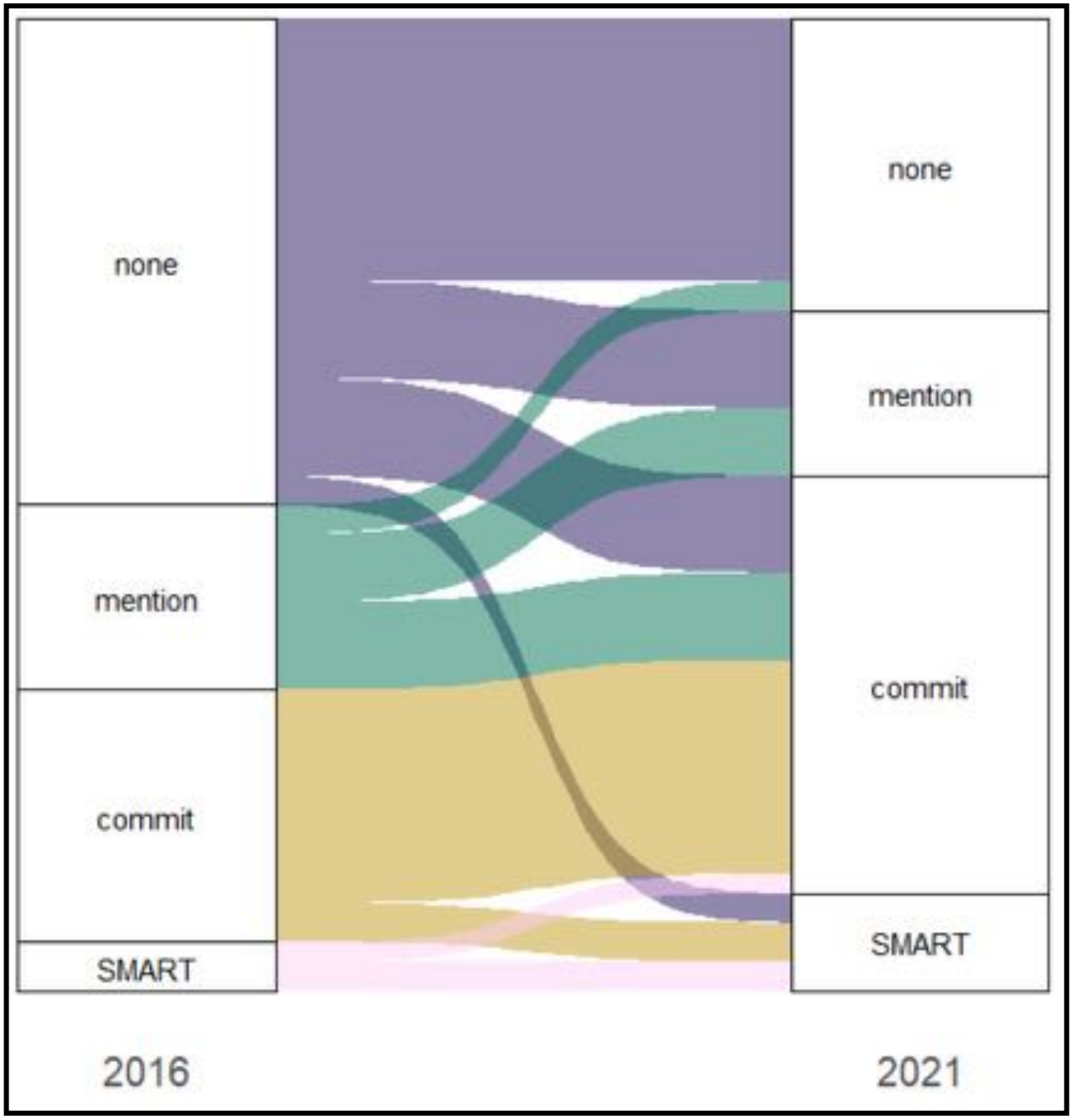
- ow these actions will add up to get gain
- ular monitoring and disclosure of progress towards our goal

29. The mission of the framework for the period up to 2030, towards the 2050 vision is:
To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity, and ensuring the fair

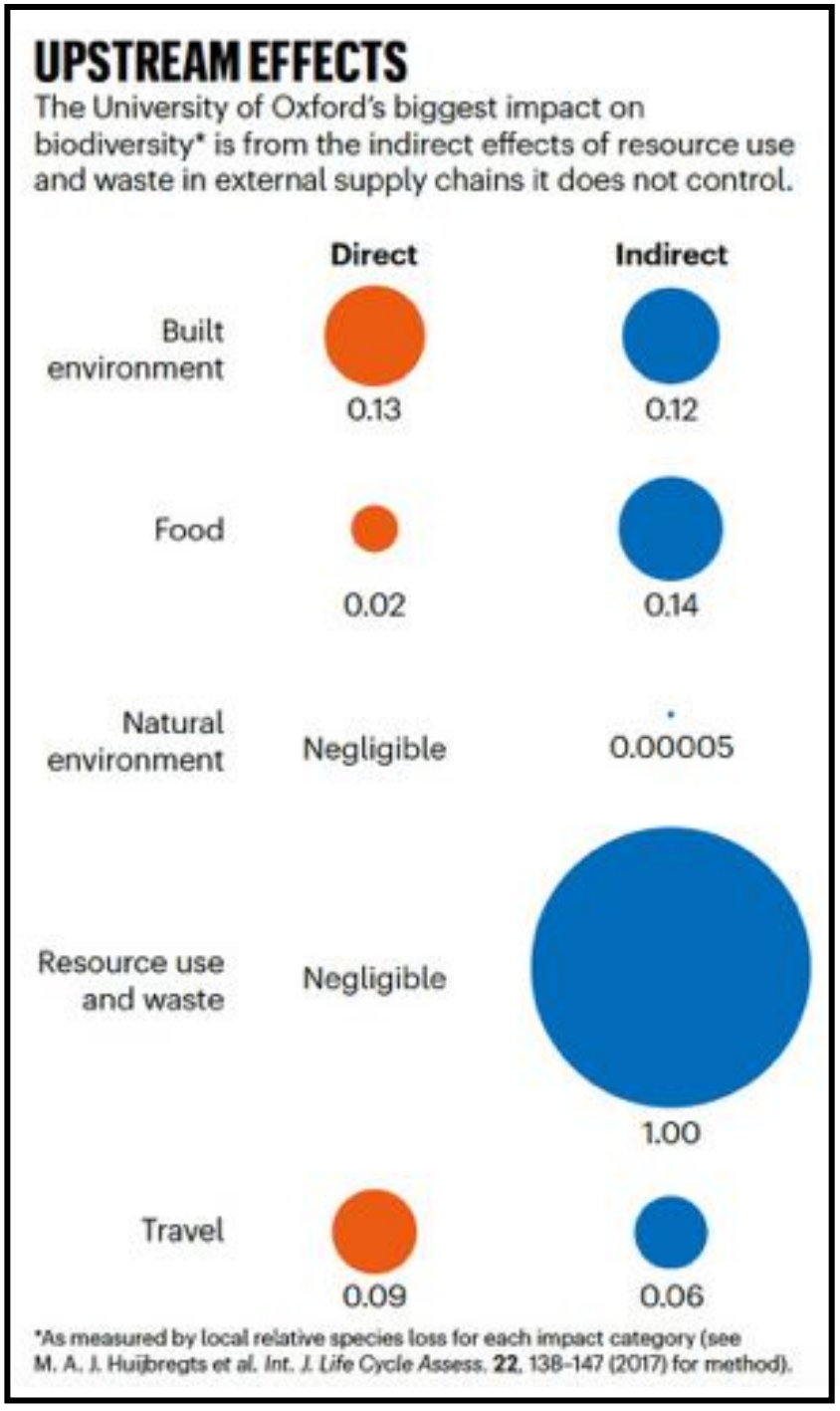
Milner-Gulland (2022) *Nature E&E*, **6**(9), 1243-1244



Folke, et al. (2019) *Nature Ecology & Evolution*, **3**, 1396–1403



zu Ermgassen, et al. (2022) *J Cleaner Production*, **379**(2) 134798



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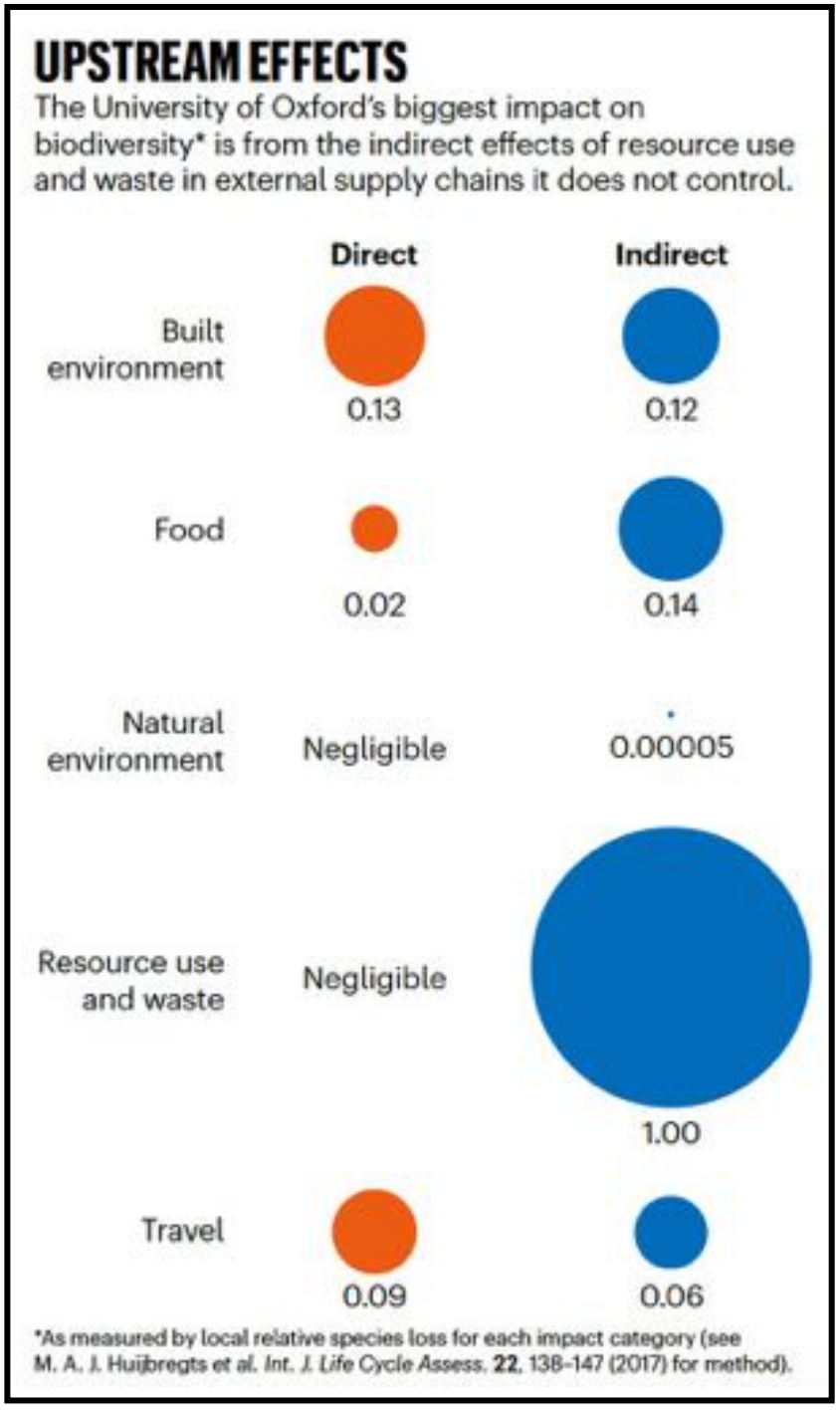
Bull, et al. (2022) *Nature*, **604**(7906), 420-424



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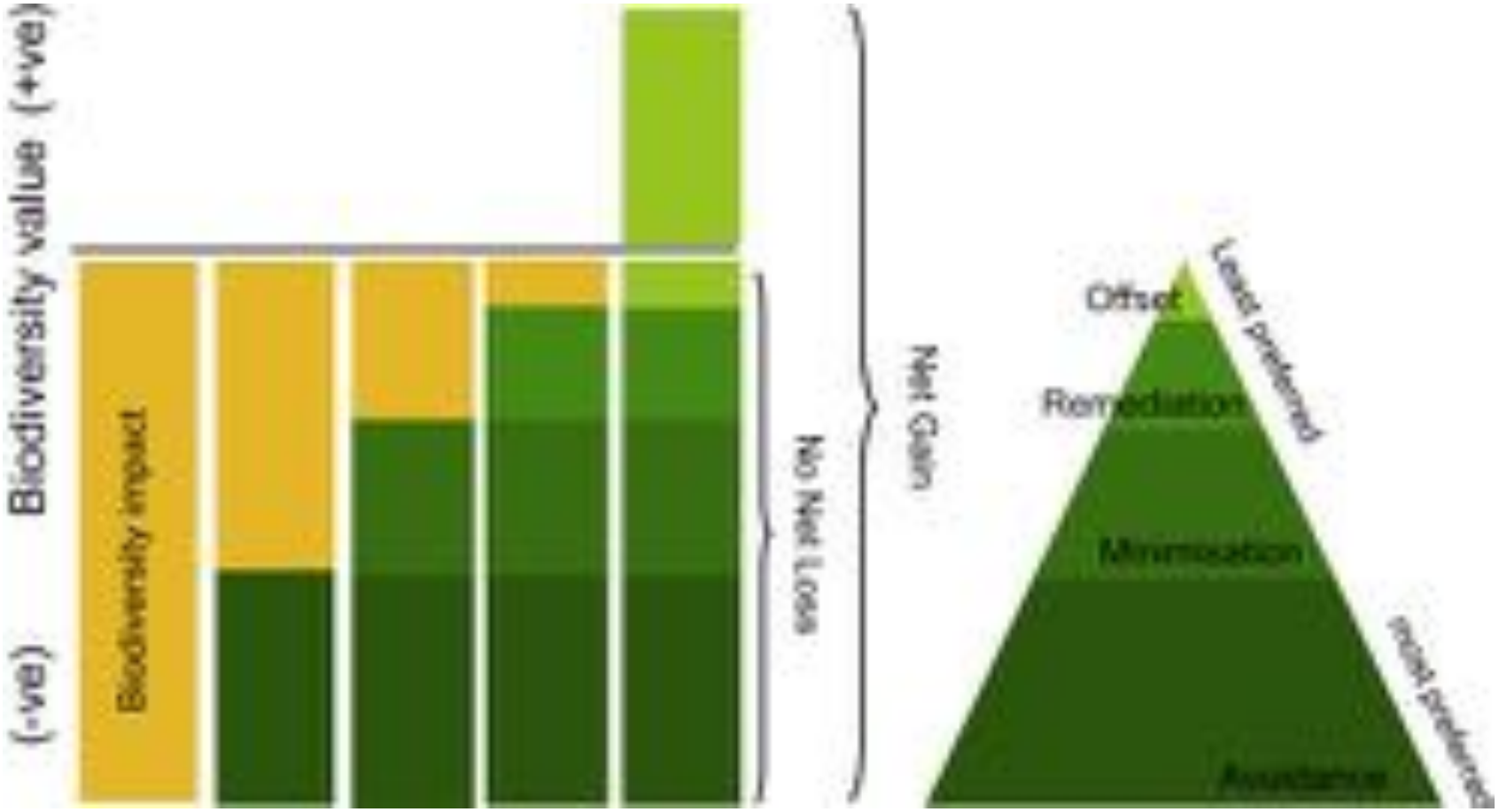
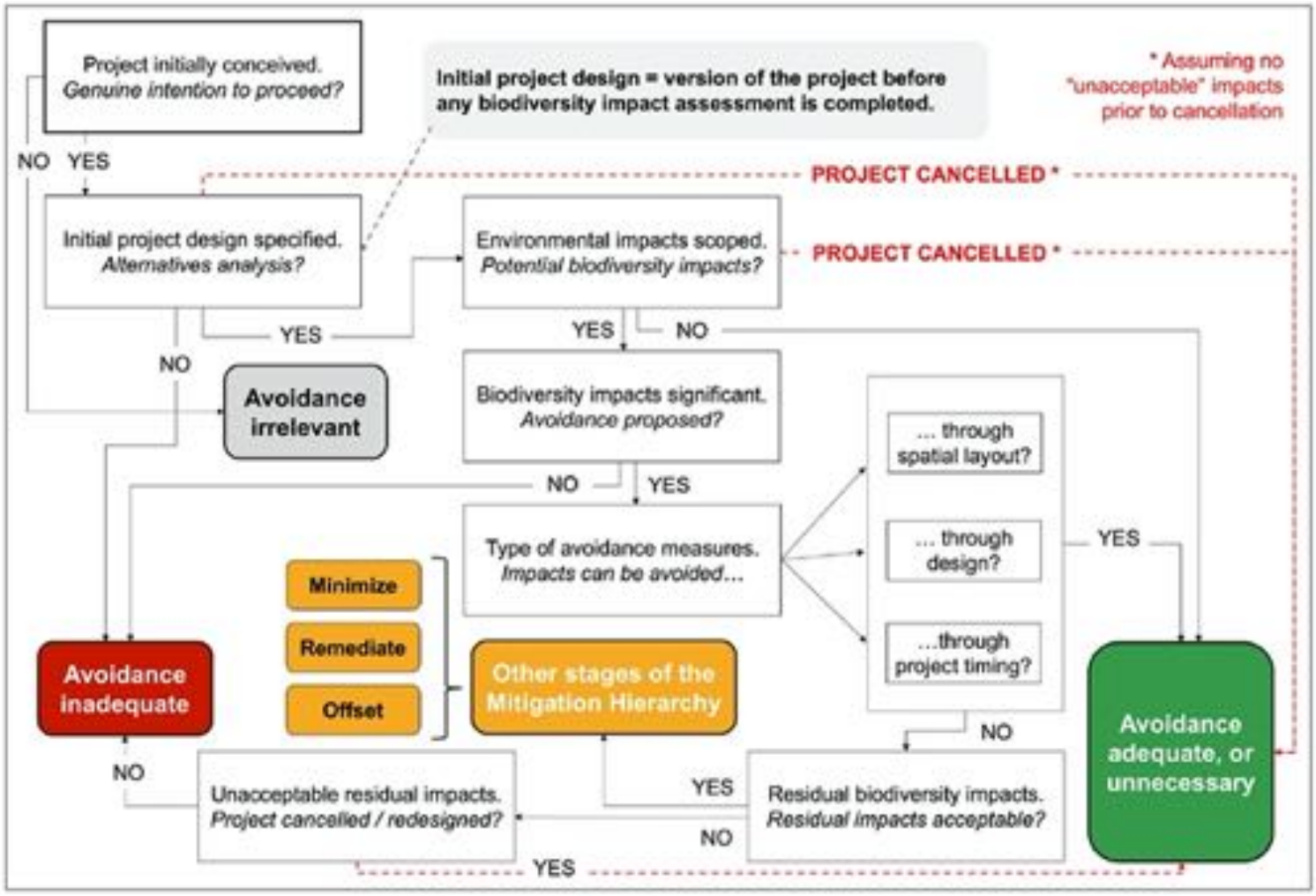
Bull, et al. (2022) *Nature*, **604**(7906), 420-424

Mitigation + Conservation



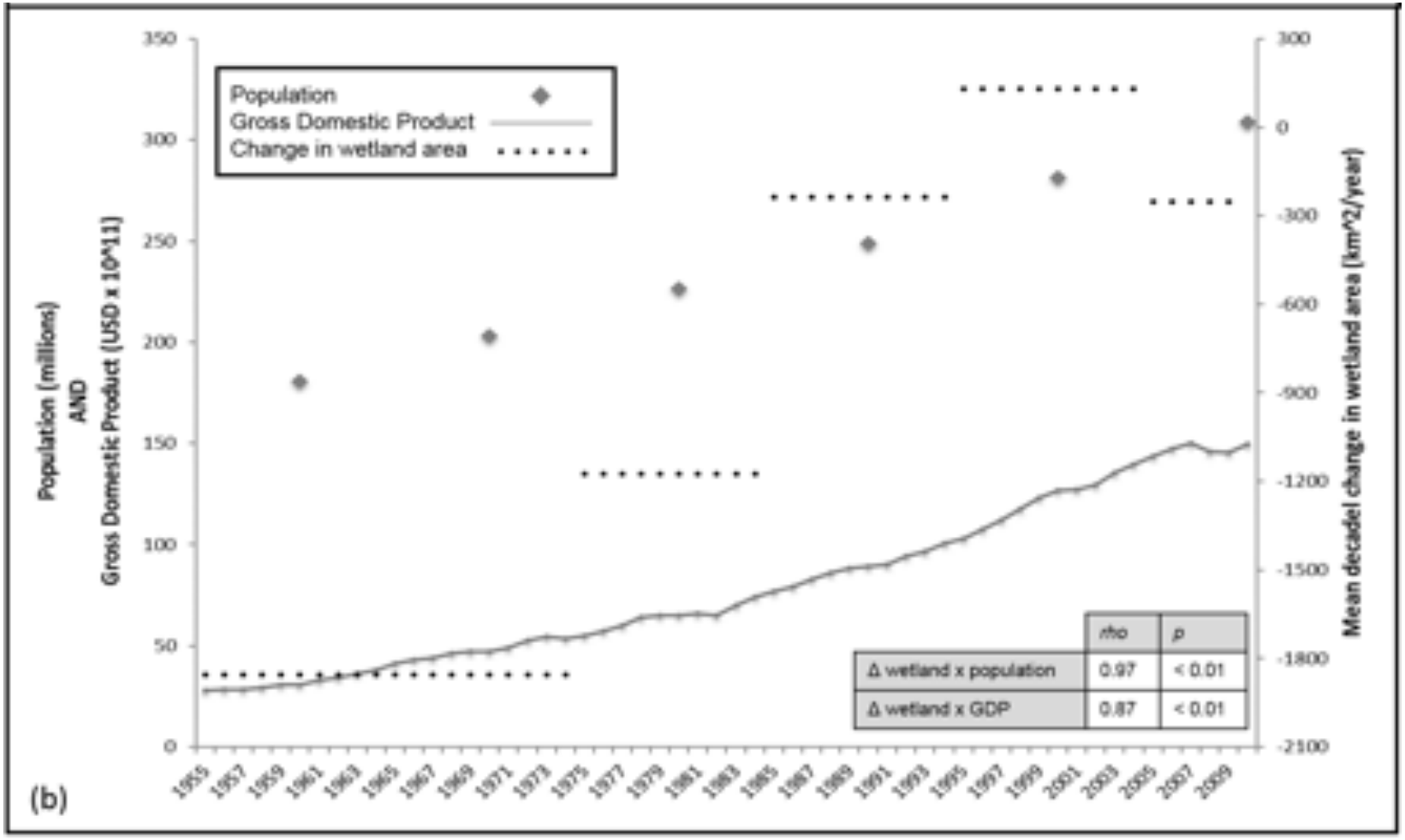
Jones, et al. (2019) *One Earth*, **1**(2), 195-201

Avoidance



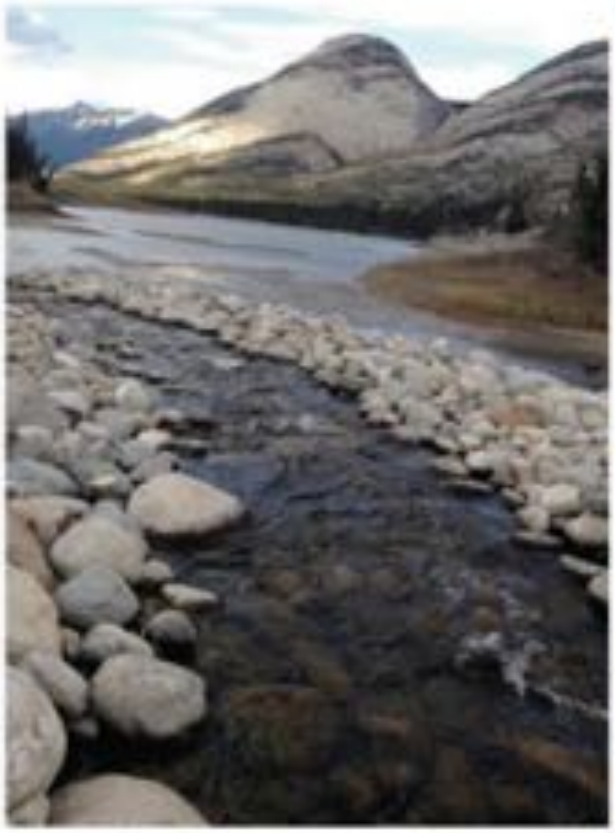
Bull et al. (2022) *Frontiers in Ecology and the Environment*, **20**(6), 370-378

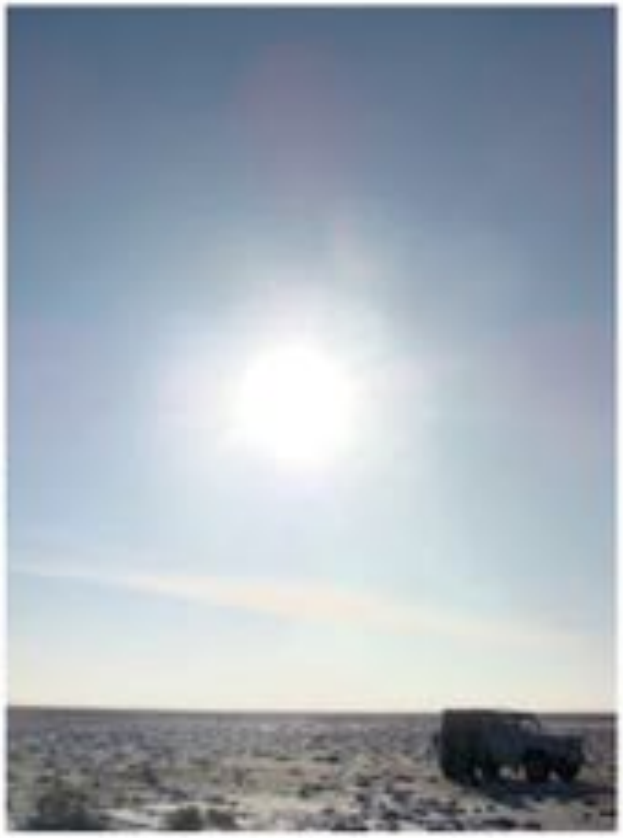
Avoidance



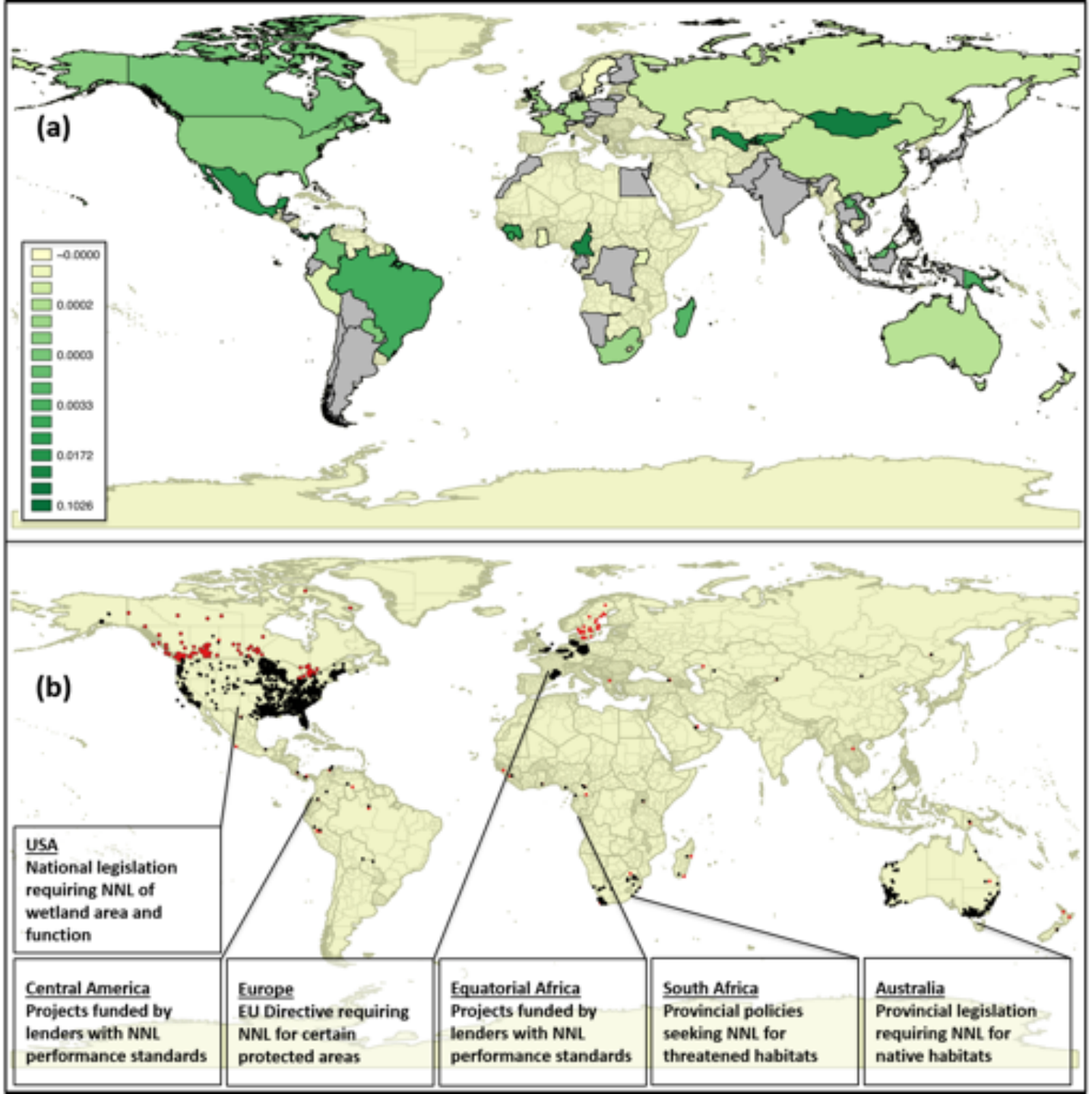
Bull & Milner-Gulland (2019) *J Applied Ecology*, **57**(2), 354-366

Biodiversity gains



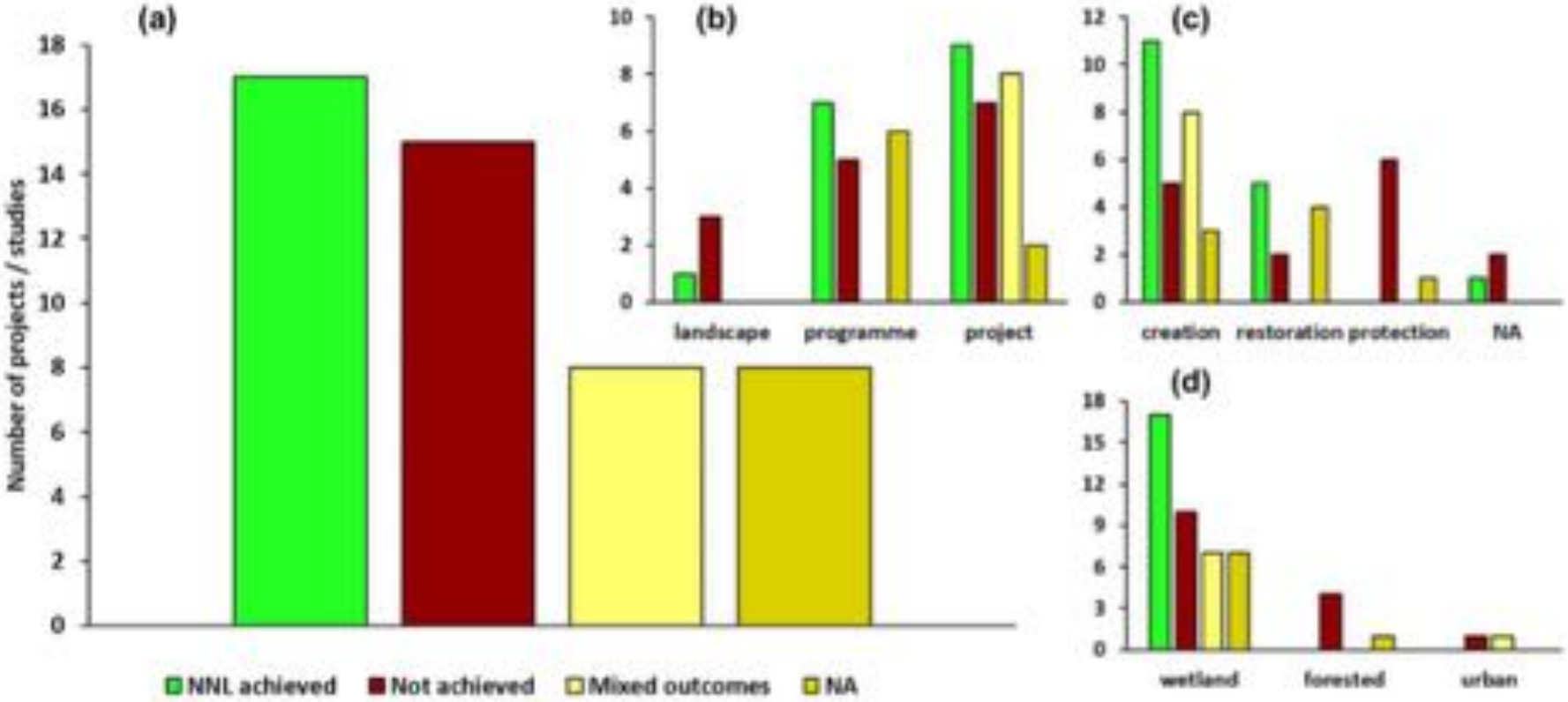


Bull & Strange (2018) *Nature Sustainability*, **1**(12), 790-798

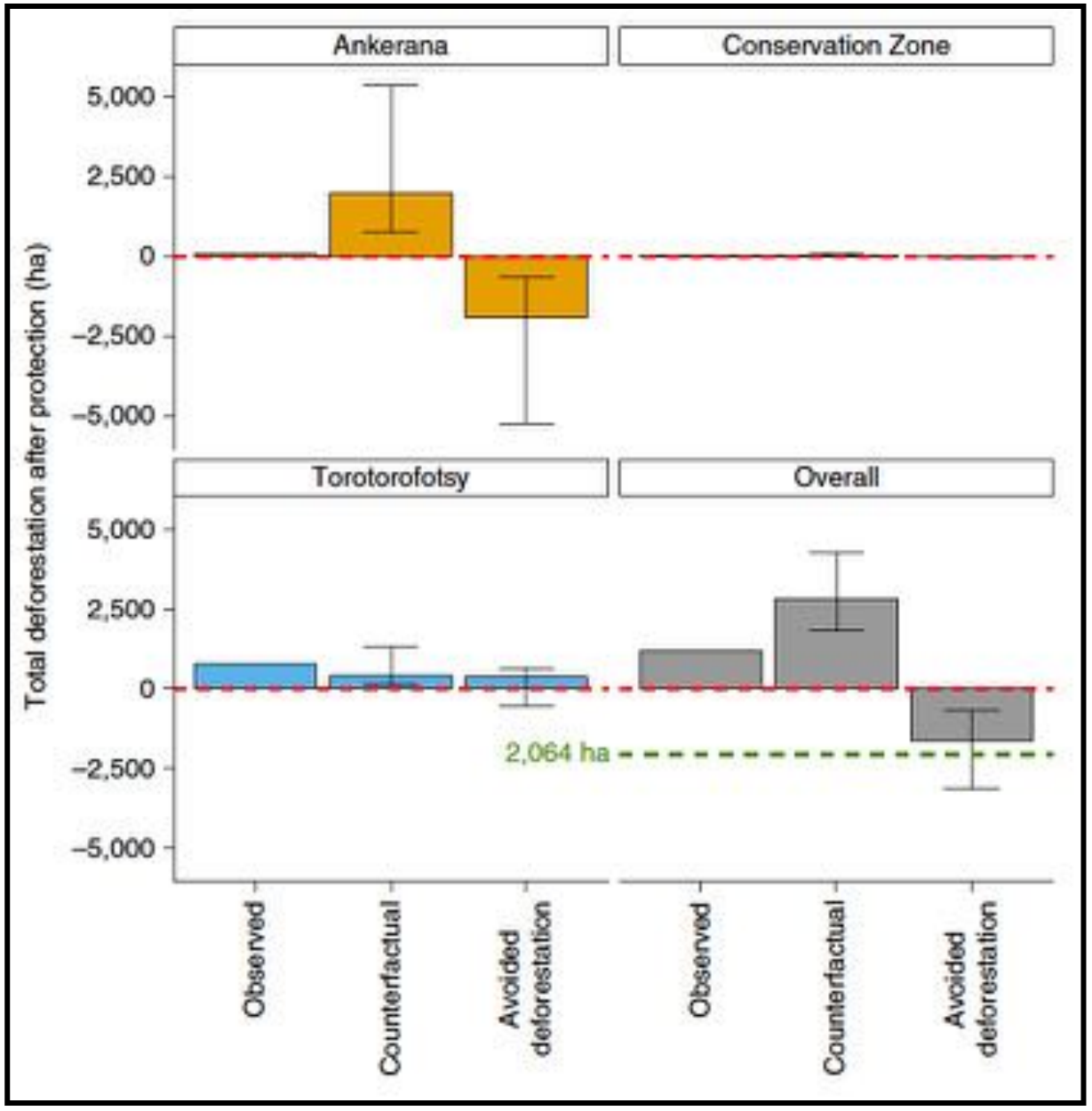


Bull & Strange (2018) *Nature Sustainability*, **1**(12), 790-798

Biodiversity gains

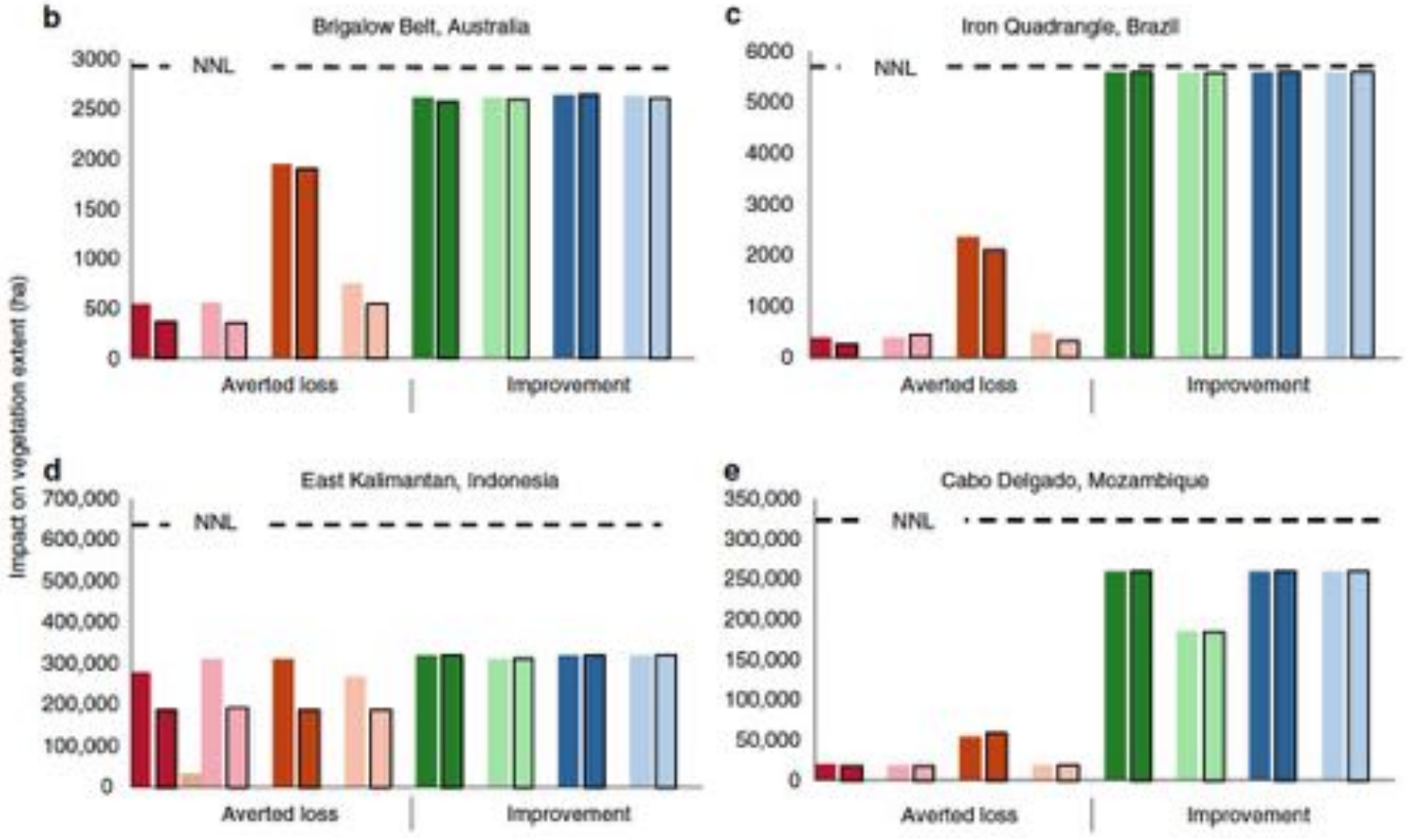


zu Ermgassen, et al. (2019) *Conservation Letters*, **12**(6), e12664



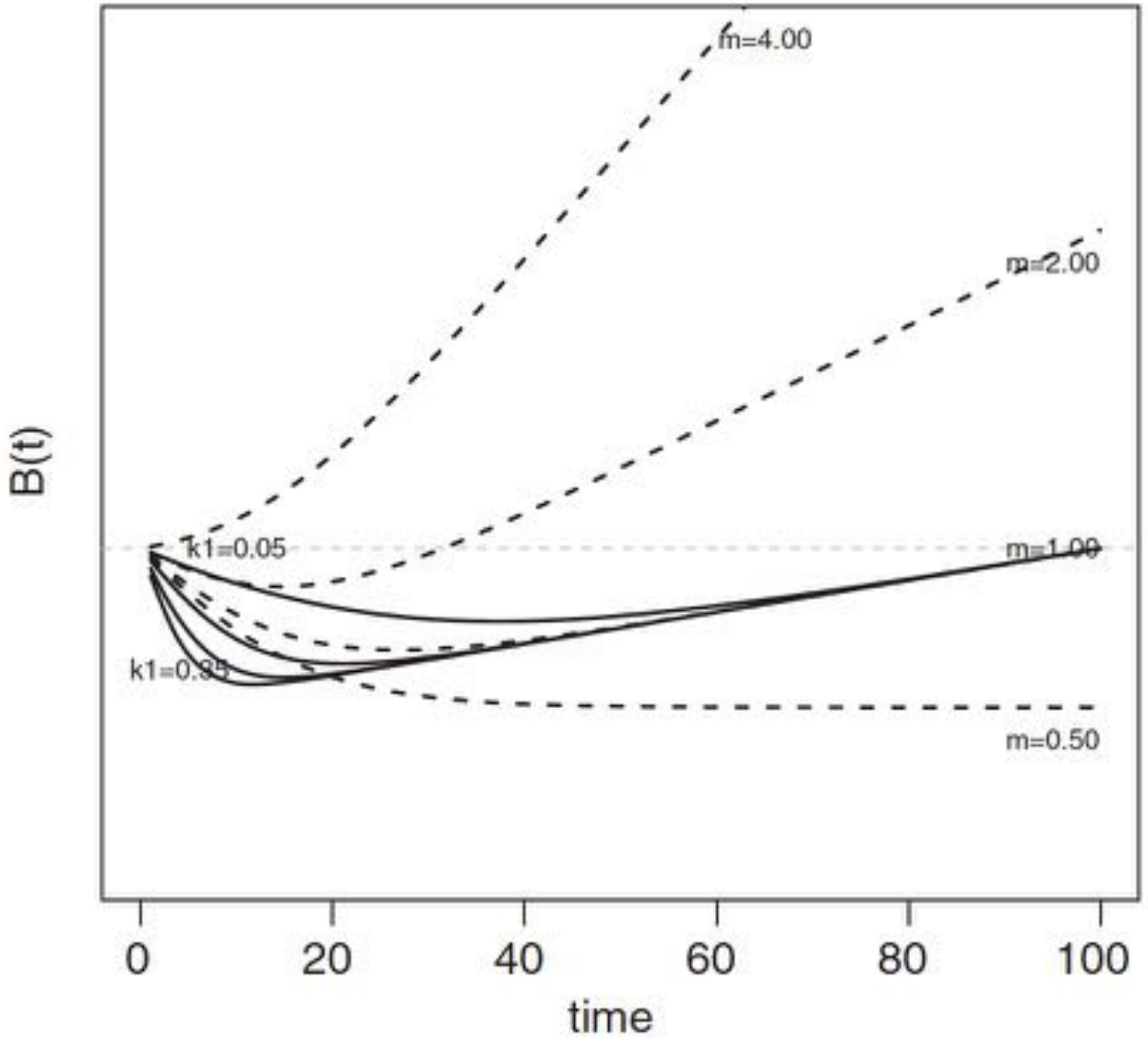
Devenish, et al. (2022) *Nature Sustainability*, **5**, 498–508

Biodiversity gains



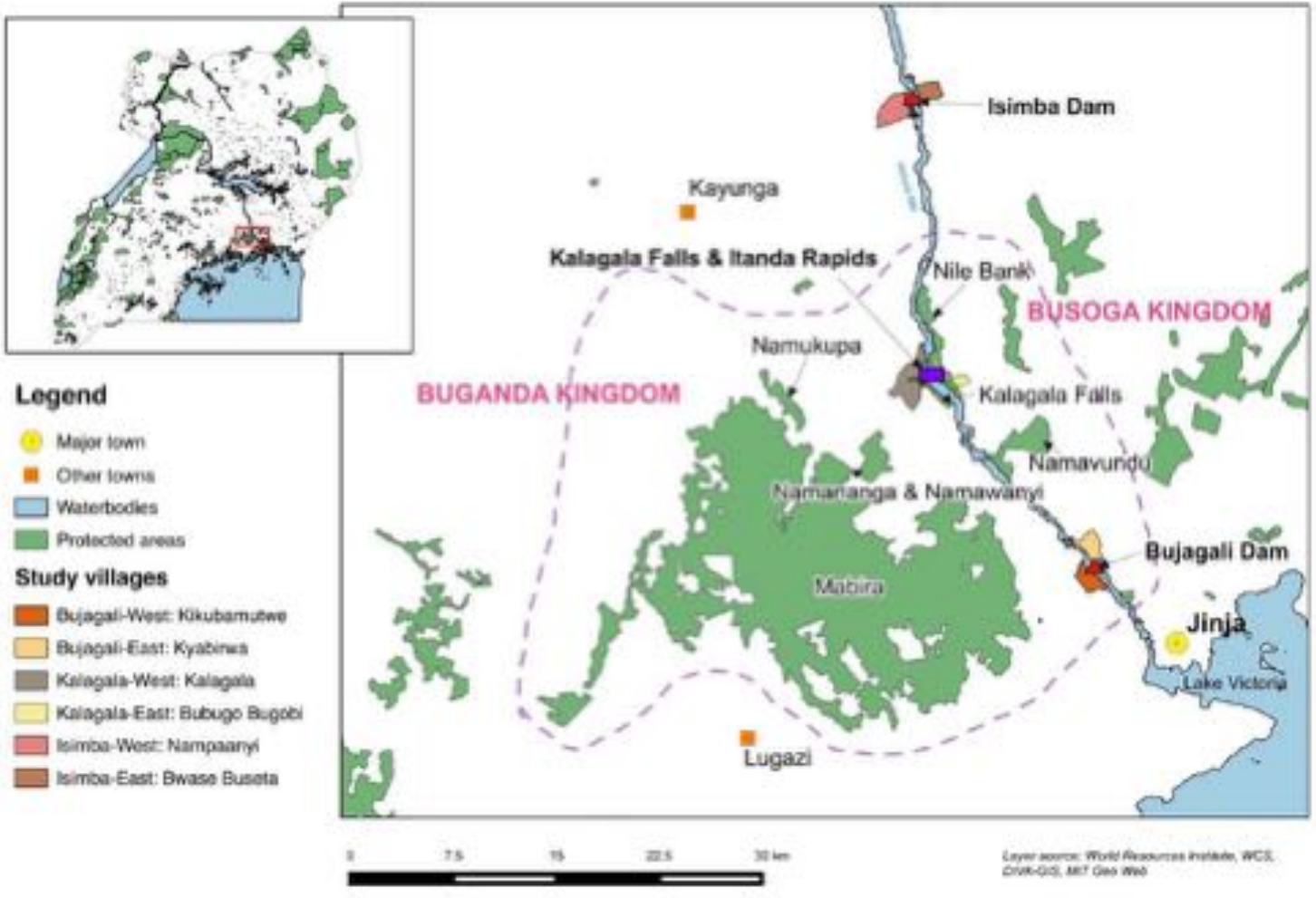
Sonter, et al. (2020) *Nature Communications*, **11**, 2072

Biodiversity gains



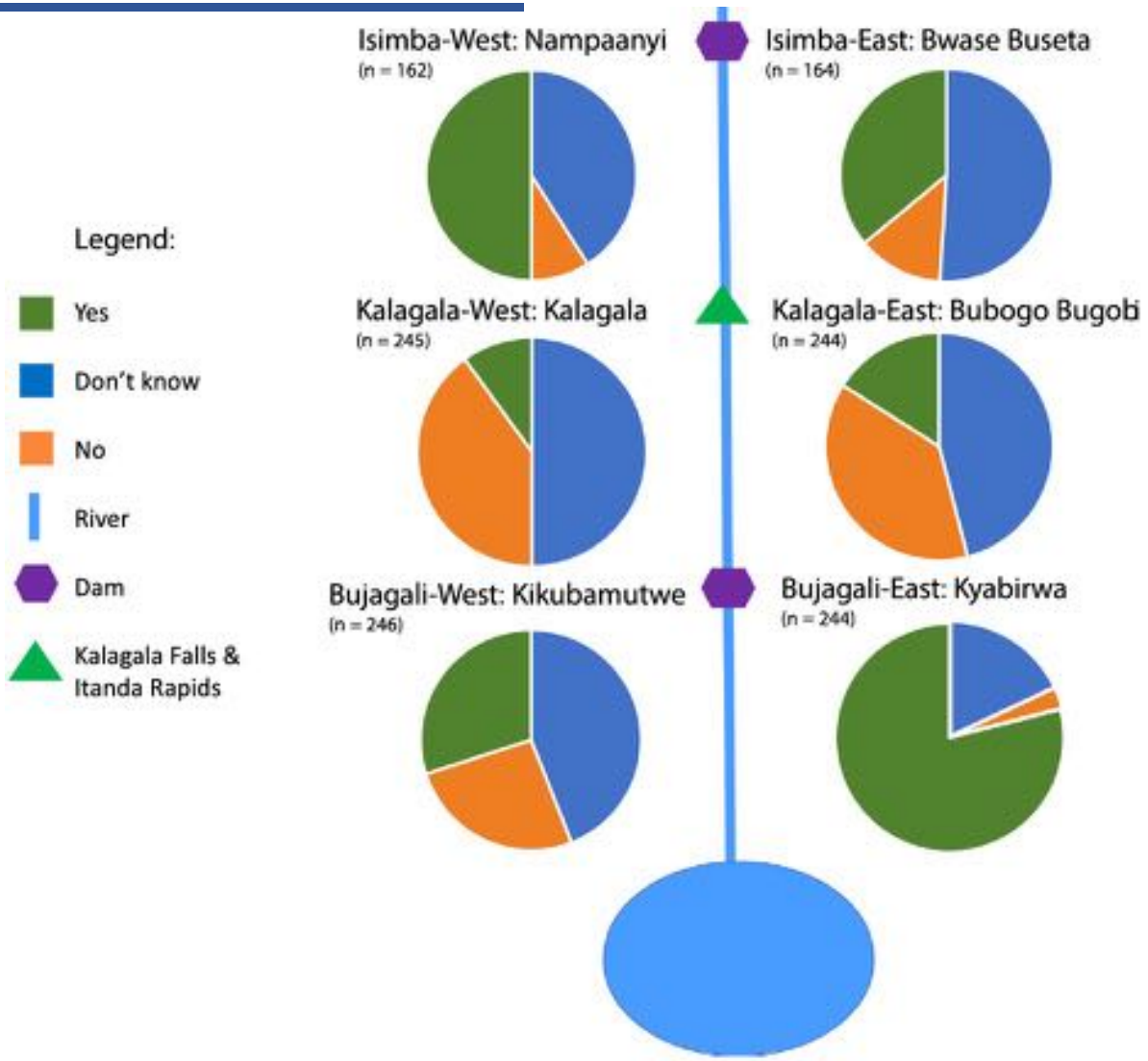
Bull, et al. (2014) *Conservation Biology*

Biodiversity gains



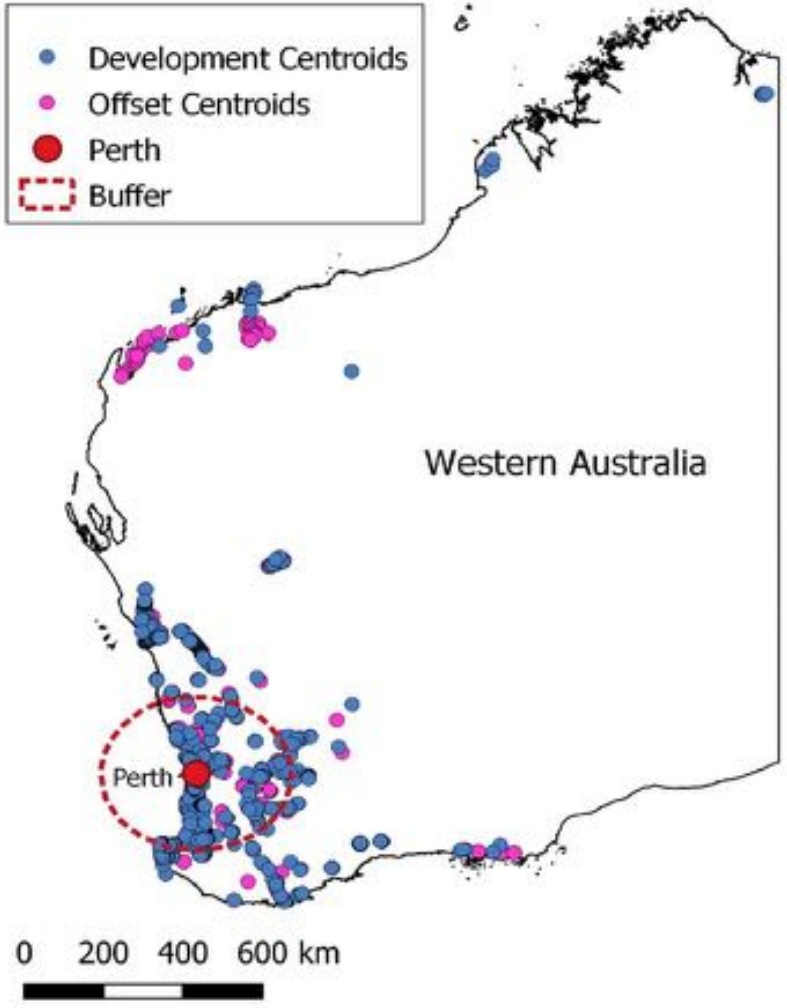
Griffiths et al. (2020) *World Development*, **128**, 104858

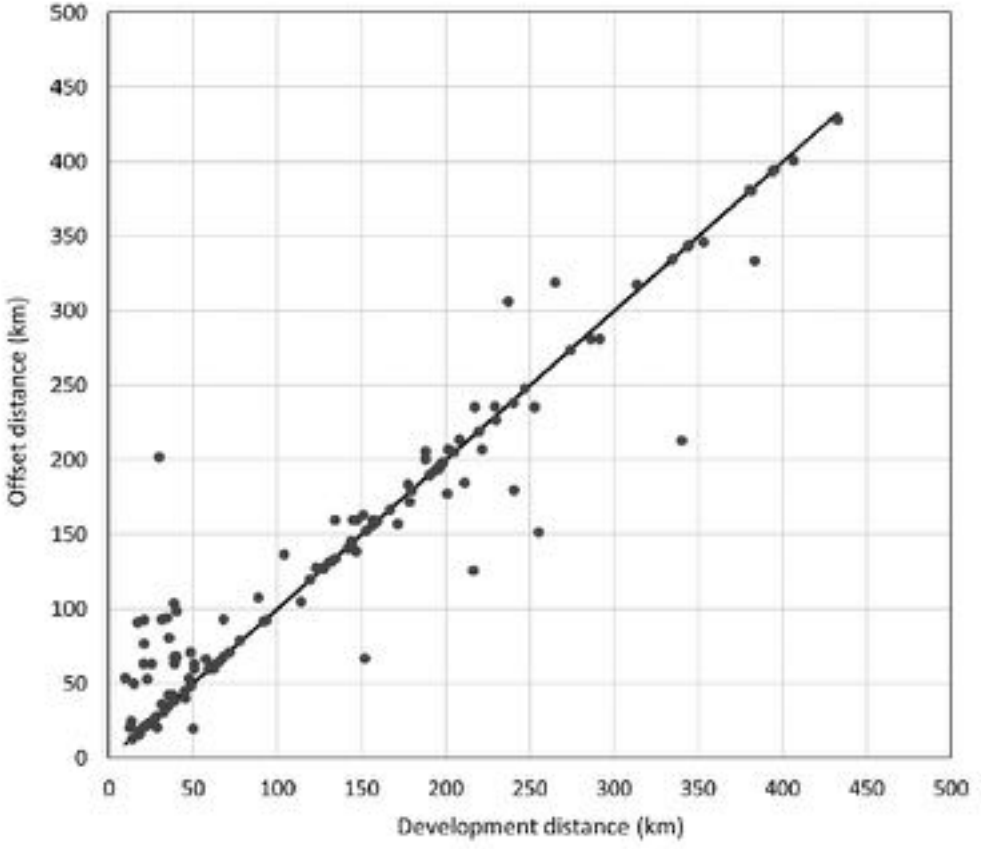
Biodiversity gains



Griffiths et al. (2020) *World Development*, **128**, 104858

Biodiversity gains



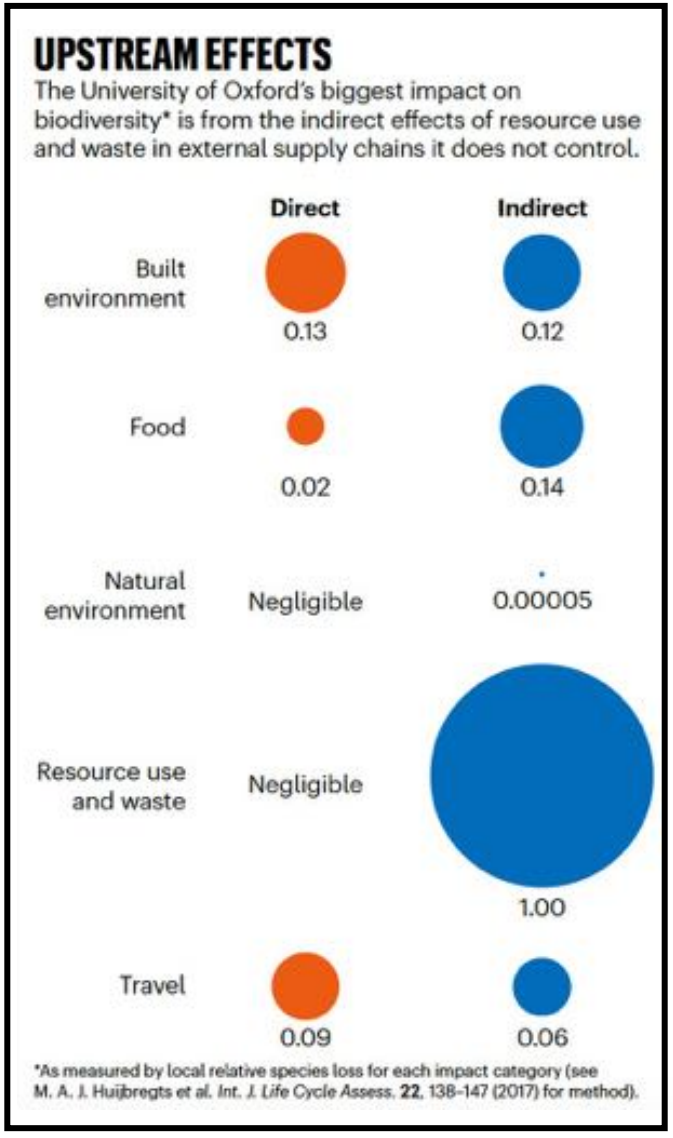


Kallioleva et al. (2021) *Conservation Science and Practice*, **3**(10), e512

Biodiversity gains

REGISTER DETAILS				EVALUATING PROPOSED OFFSET ACTIONS						POST EVALUATION OF OFFSET EFFECTIVENESS				ADAPTIVE POLICY IMPROVEMENT	
Register name	Offset policy	Jurisdiction N = national S = state L = local	Type of offset included	Offsets linked to development	Spatial data on locations	Impacted biodiversity features	Impacts and how measured	Offset/financial payment calculation	Proposed actions	Required biodiversity gains (not credits)	Monitoring data at: offset site(s)	Monitoring data at: control site(s)	Monitoring data at: impact site(s)	Information on costs	Biodiversity outcomes
Noord-Brabant Provincial Registry	*Nature Conservation Act 2017*	L: Noord-Brabant province, the Netherlands	Permittee-responsible, in-lieu-fees												
Government of Western Australia Environmental Offsets Register	*WA Environmental Offsets Policy*	S: Western Australia, Australia	Permittee-responsible, in-lieu-fees												
Queensland Government Offsets register	*The Environmental Offsets Act 2014*	S: Queensland, Australia	Permittee-responsible, in-lieu-fees, habitat banks												

Kujala et al. (2022) *One Earth*, **5**(6), 650-662

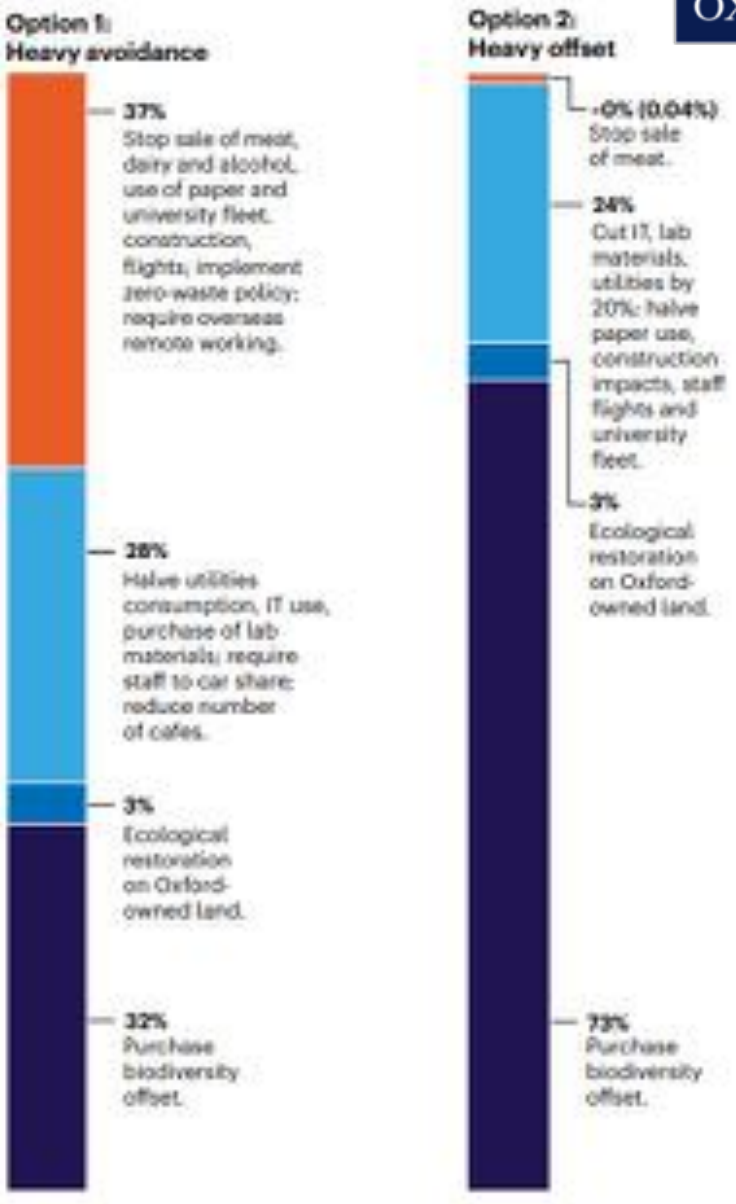


Bull JW, et al. (2022) *Nature*, **604**(7906), 420-424

OXFORD'S OPTIONS

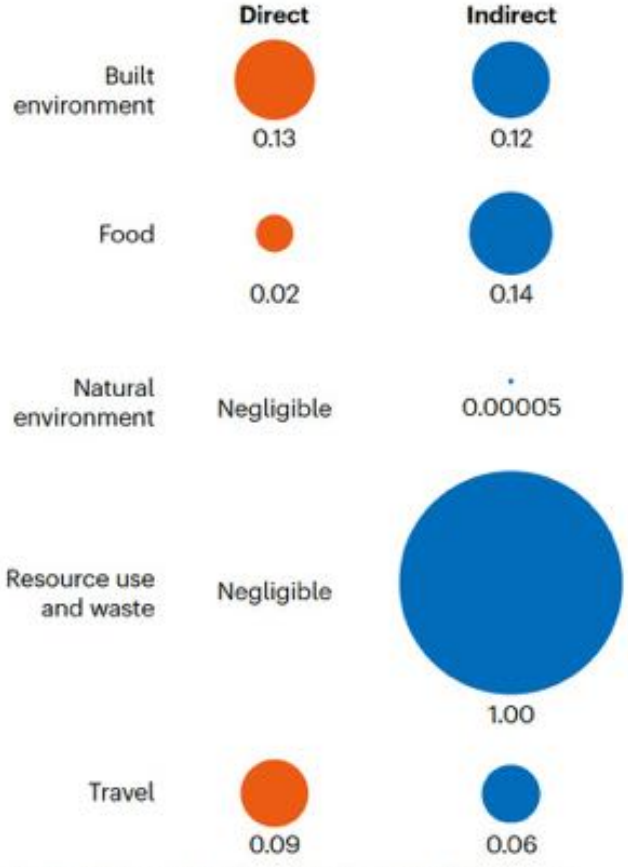
To achieve no net loss of biodiversity, the University of Oxford could focus more heavily on preventing harms to biodiversity (option 1). Or it could try to compensate for the impacts that its activities and operations have on the planet (option 2).

■ Avoid ■ Minimize ■ Remediate ■ Offset



UPSTREAM EFFECTS

The University of Oxford's biggest impact on biodiversity* is from the indirect effects of resource use and waste in external supply chains it does not control.



*As measured by local relative species loss for each impact category (see M. A. J. Huijbregts et al. Int. J. Life Cycle Assess. 22, 138–147 (2017) for method).

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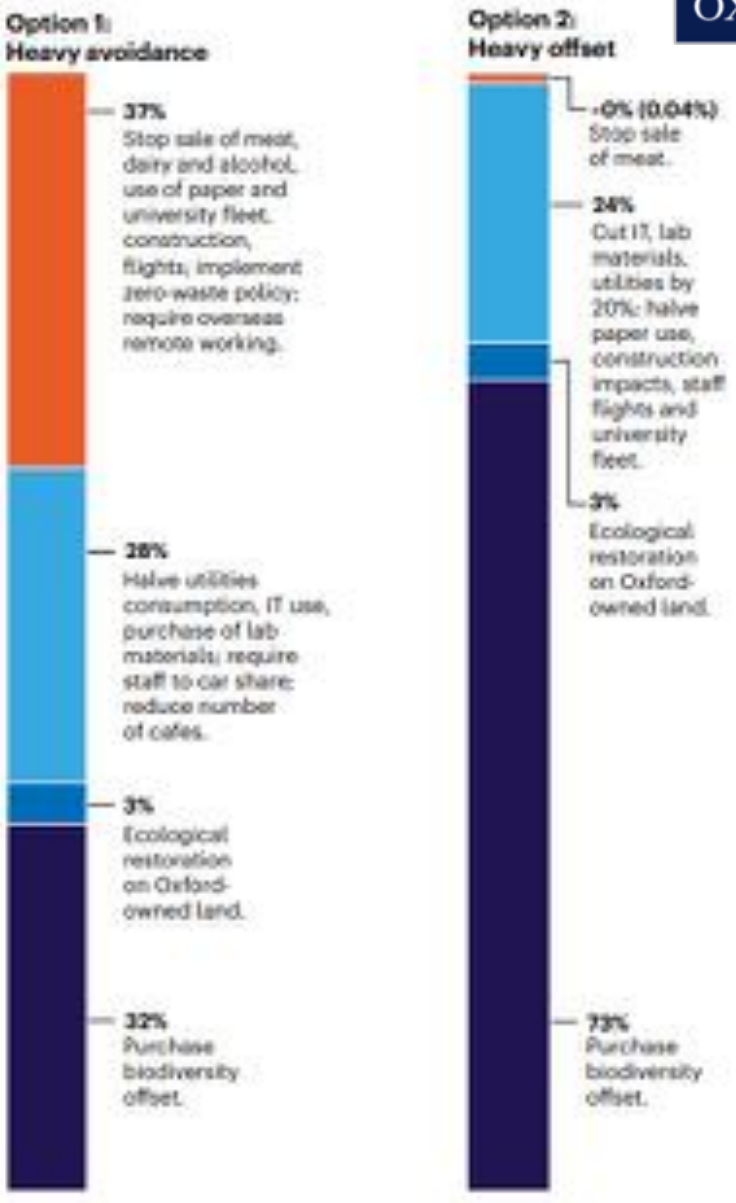

UPSTREAM EFFECTS

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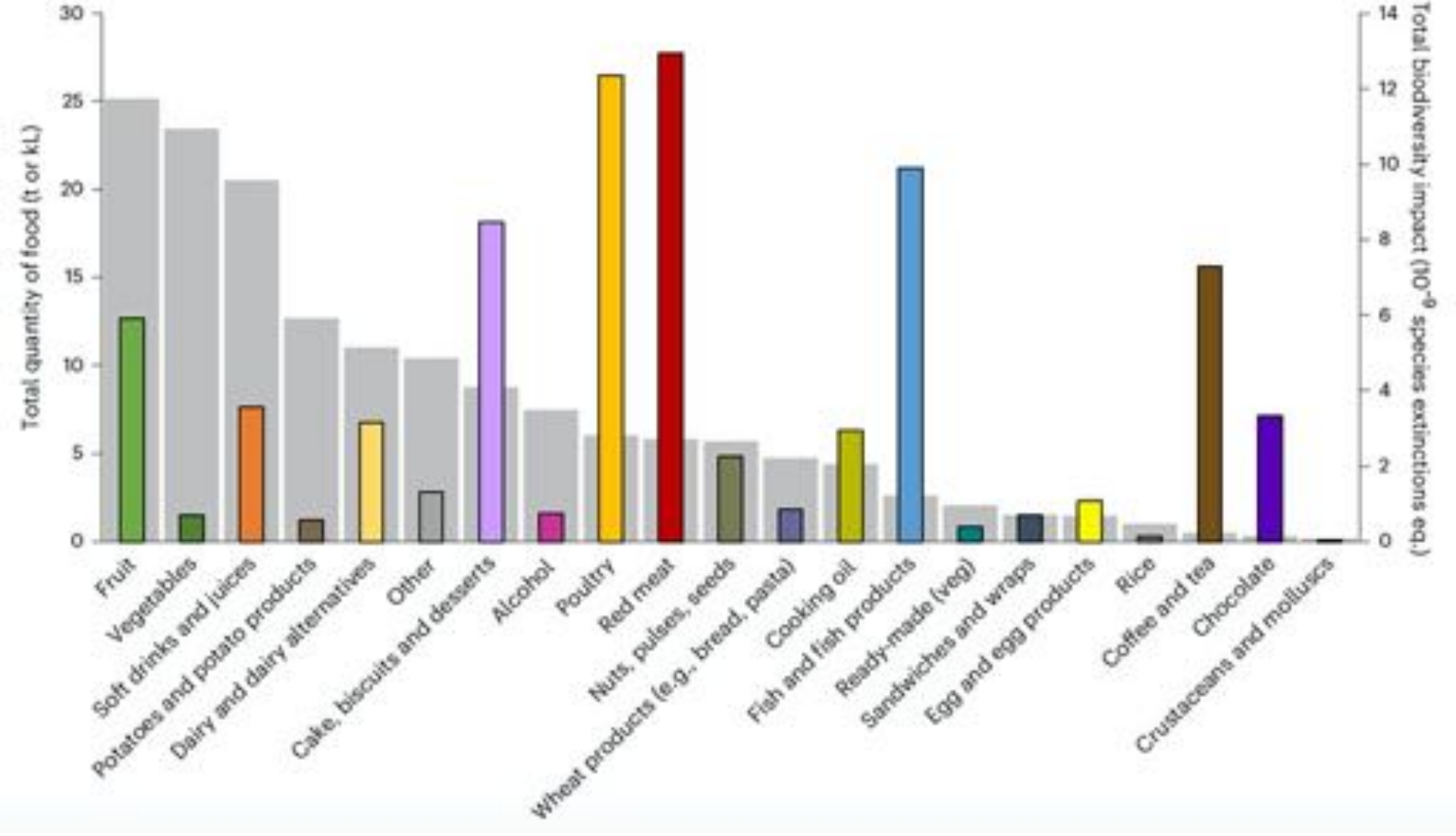
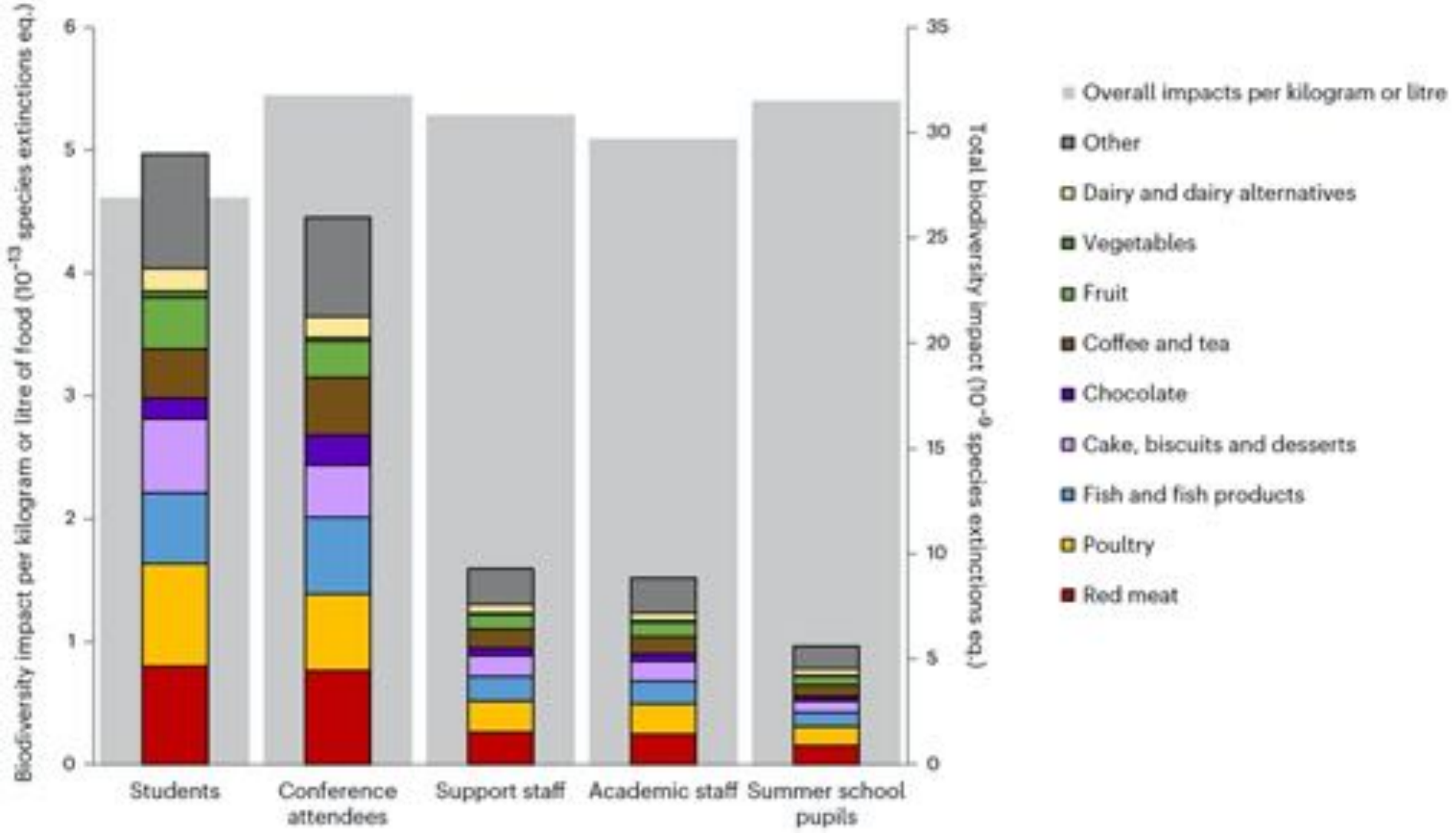
	Direct	Indirect
Built environment	0.13	0.12
Food	0.02	0.14
Natural environment	Negligible	0.00005
Resource use and waste	Negligible	1.00
Travel	0.09	0.06

*As measured by local relative species loss for each impact category (see M. A. J. Huijbregts et al. *Int. J. Life Cycle Assess.* **22**, 138–147 (2017) for method).

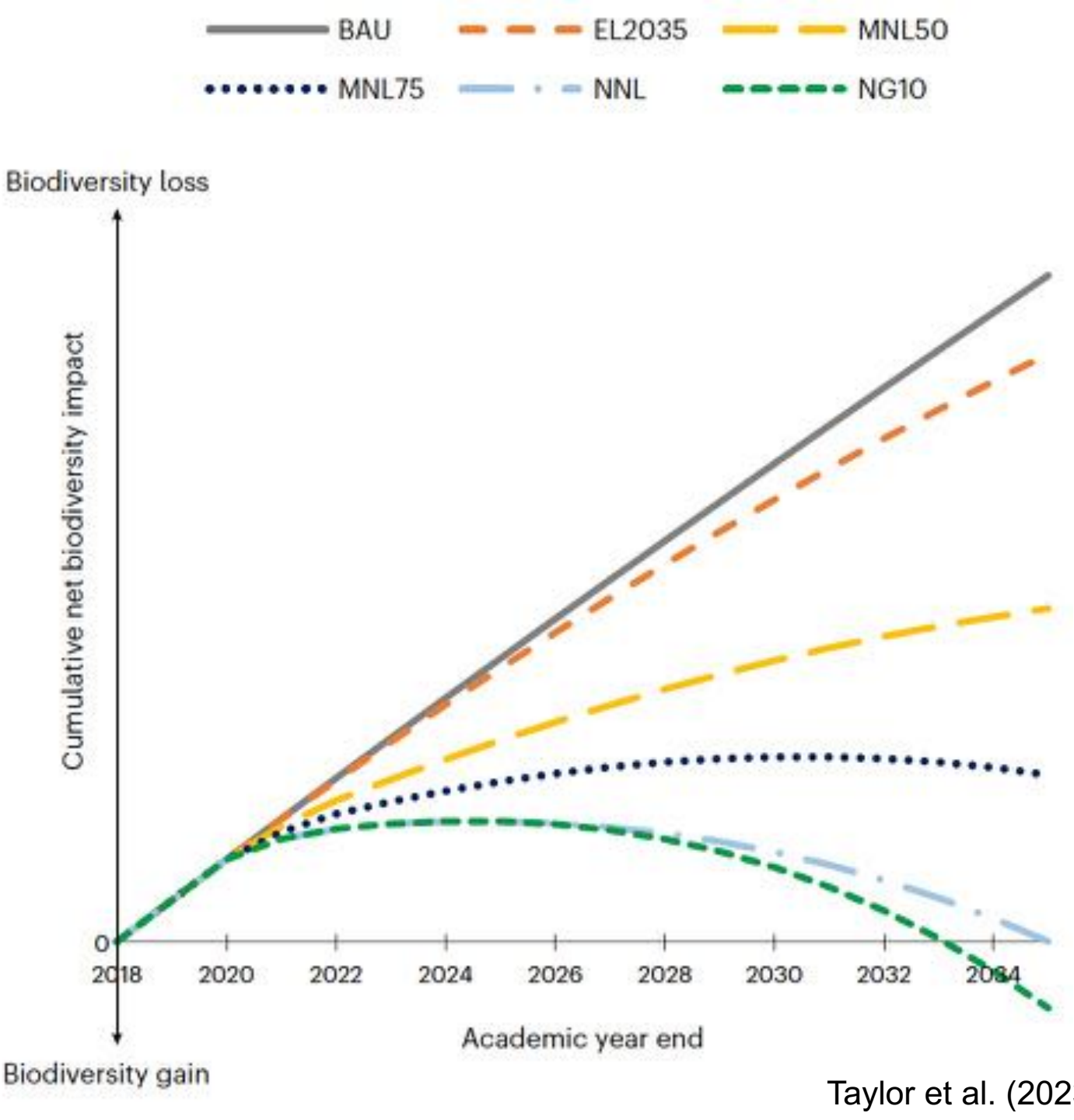
Bull JW, et al. (2022) *Nature*, **604**(7906), 420-424



Taylor et al. (2023) *Nature Food*, **4**, 96–108



Taylor et al. (2023) *Nature Food*, **4**, 96–108



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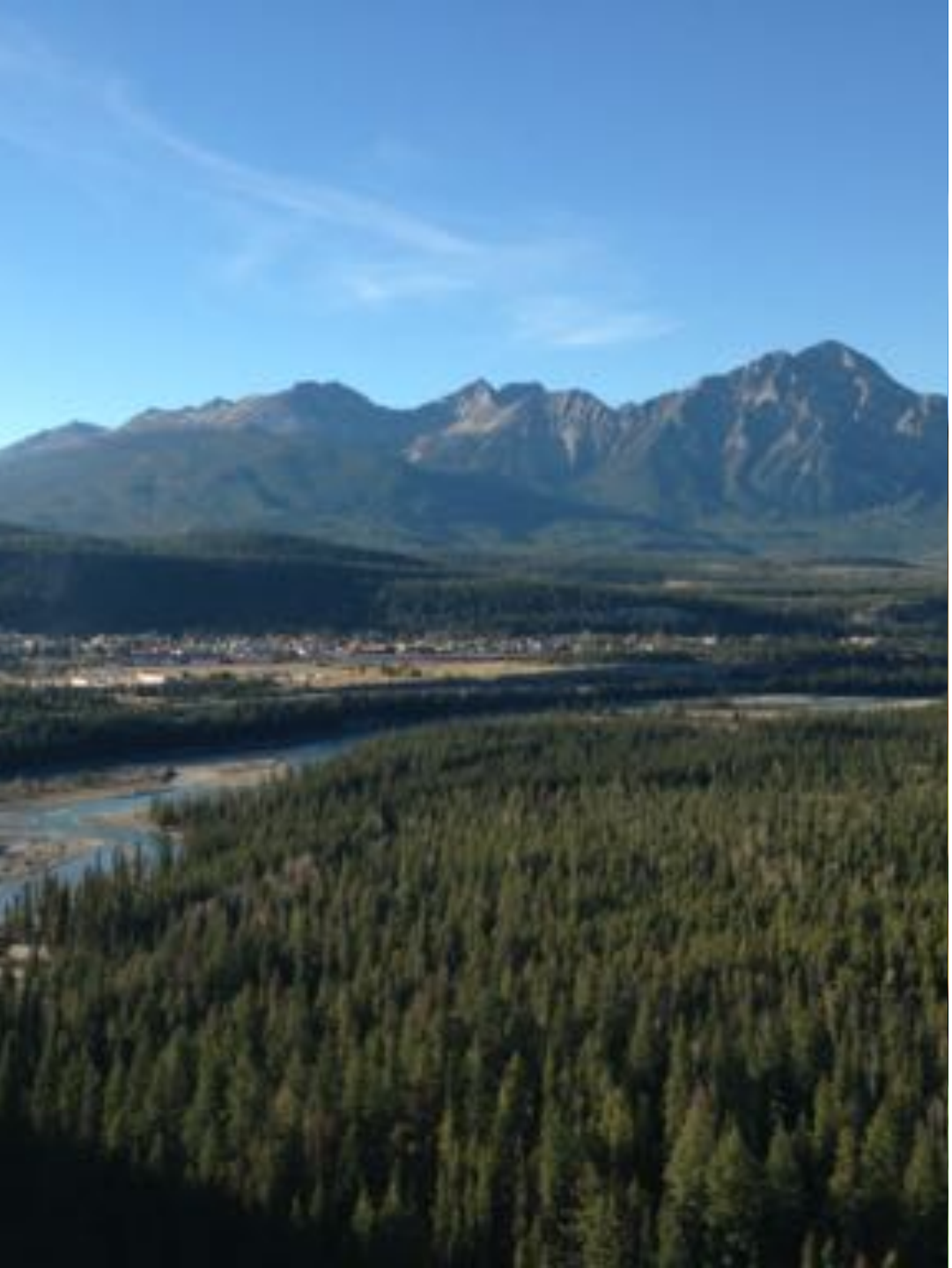
Taylor et al. (2023) *Nature Food*, **4**, 96–108

Concluding thoughts

- Nature Positive has NGO and private sector **momentum**, and policy backing
- Methods for calculating biodiversity **footprints** *exist*
- Challenge of deciding what to **avoid**
- Then, we need to ensure biodiversity **offsets** work
- Will be challenging for many orgs, and may well require broader **systemic change**
- **Not impossible** – but we have to get serious



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Thank you

joseph.bull@biology.ox.ac.uk