Economic growth, biodiversity and bioeconomy

A tentative exploration of the links

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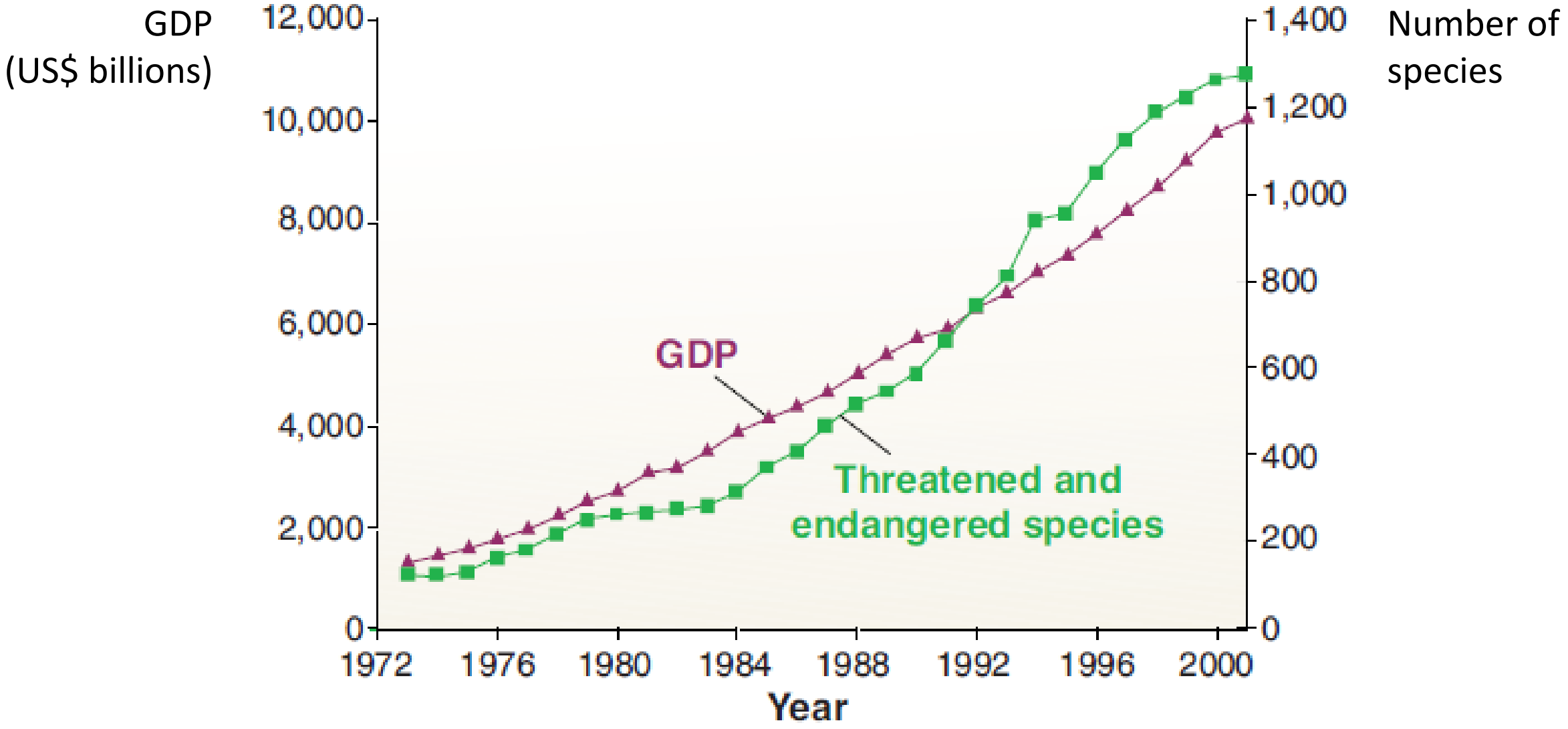
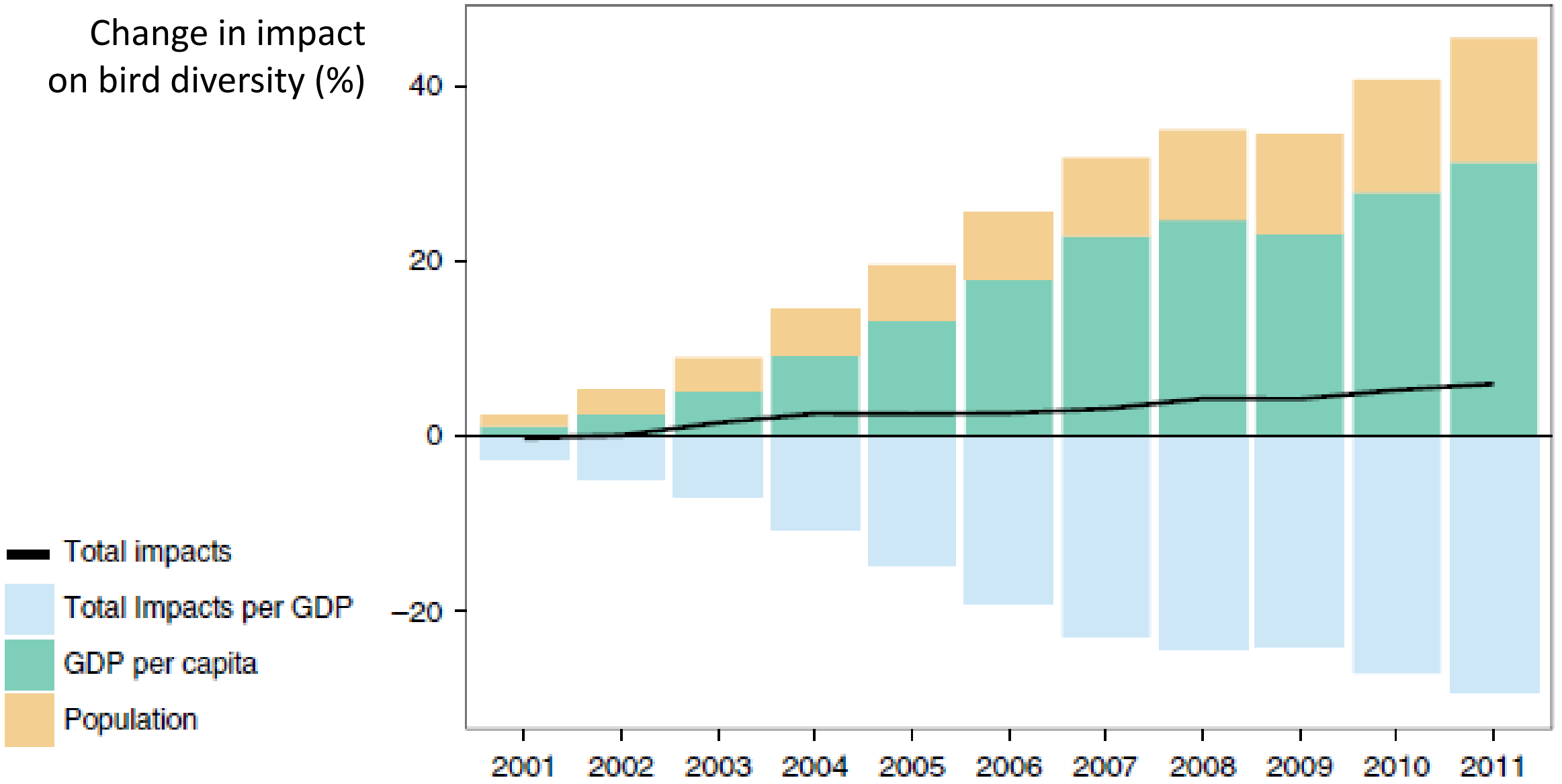
1. Economic growth and biodiversity loss

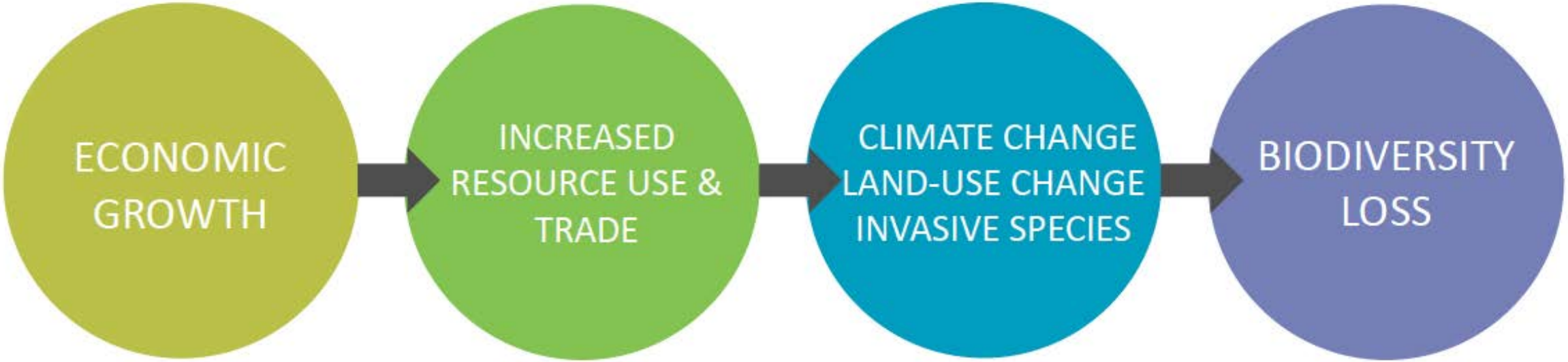


Czech et al. (2005) *Science*

Change in impact on bird diversity (%)

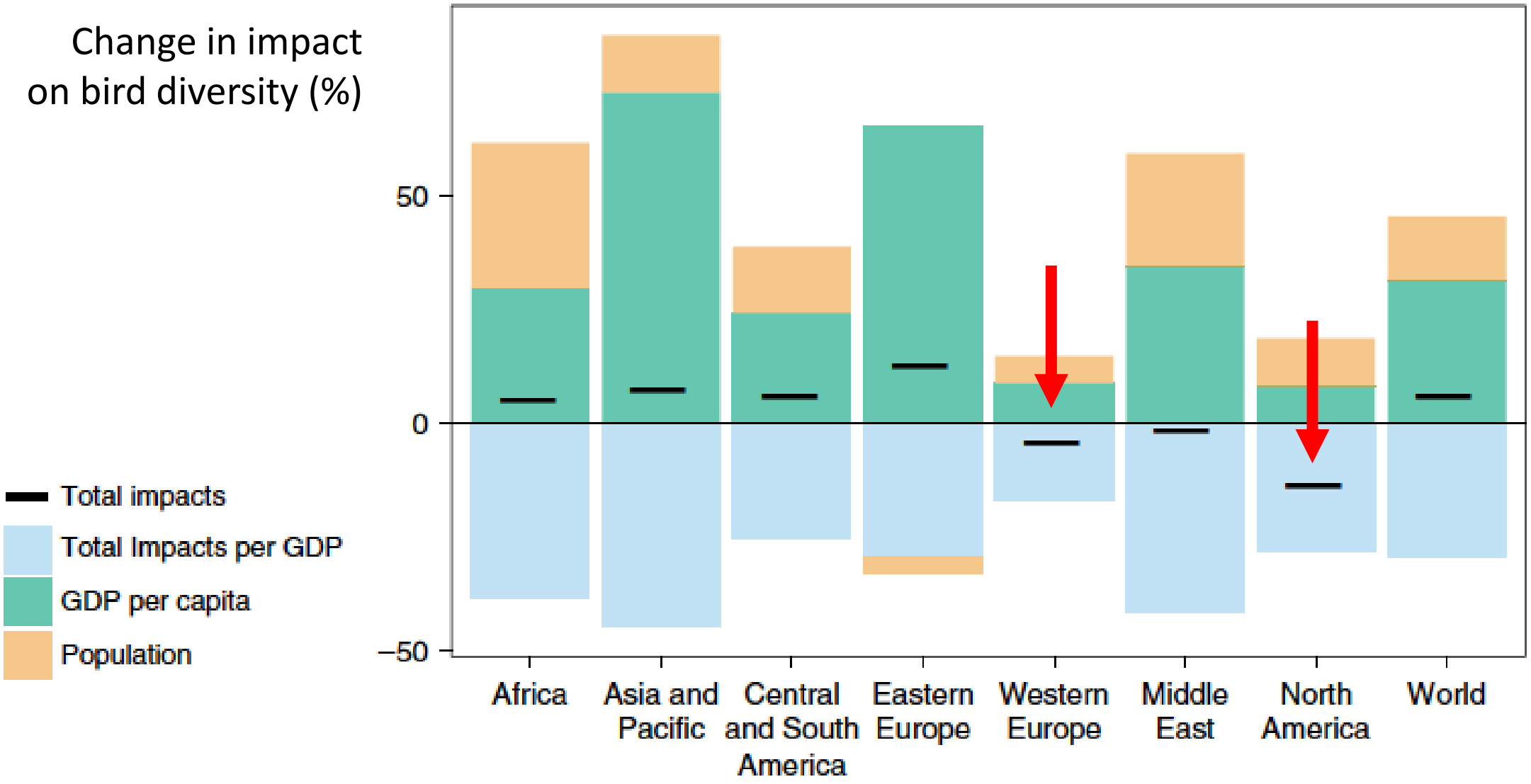


Marques et al. (2019) *Nature E&E*



Otero et al. (2020) *Conservation Lett.*

Change in impact on bird diversity (%)



Marques et al. (2019) *Nature E&E*

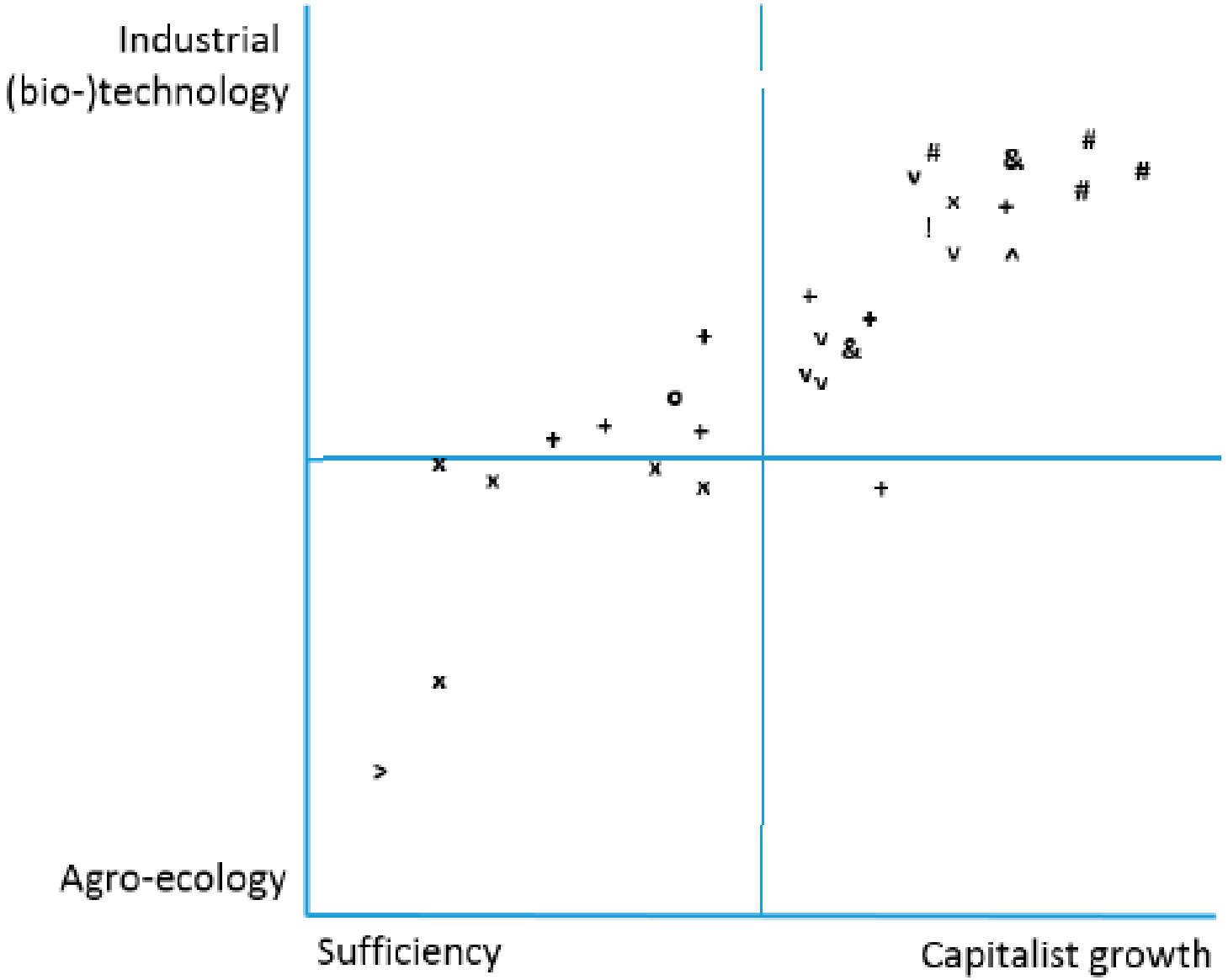
2. Economic growth in sustainability and biodiversity policies

Vision on the relationship between economic growth and biodiversity in international policies (1972-2016)

	Problematic	Unproblematic	Ambiguous	Not assessed
Policy documents on sustainability (7)	2	1	4	0
Policy documents on biodiversity (21)	4	4	11	2

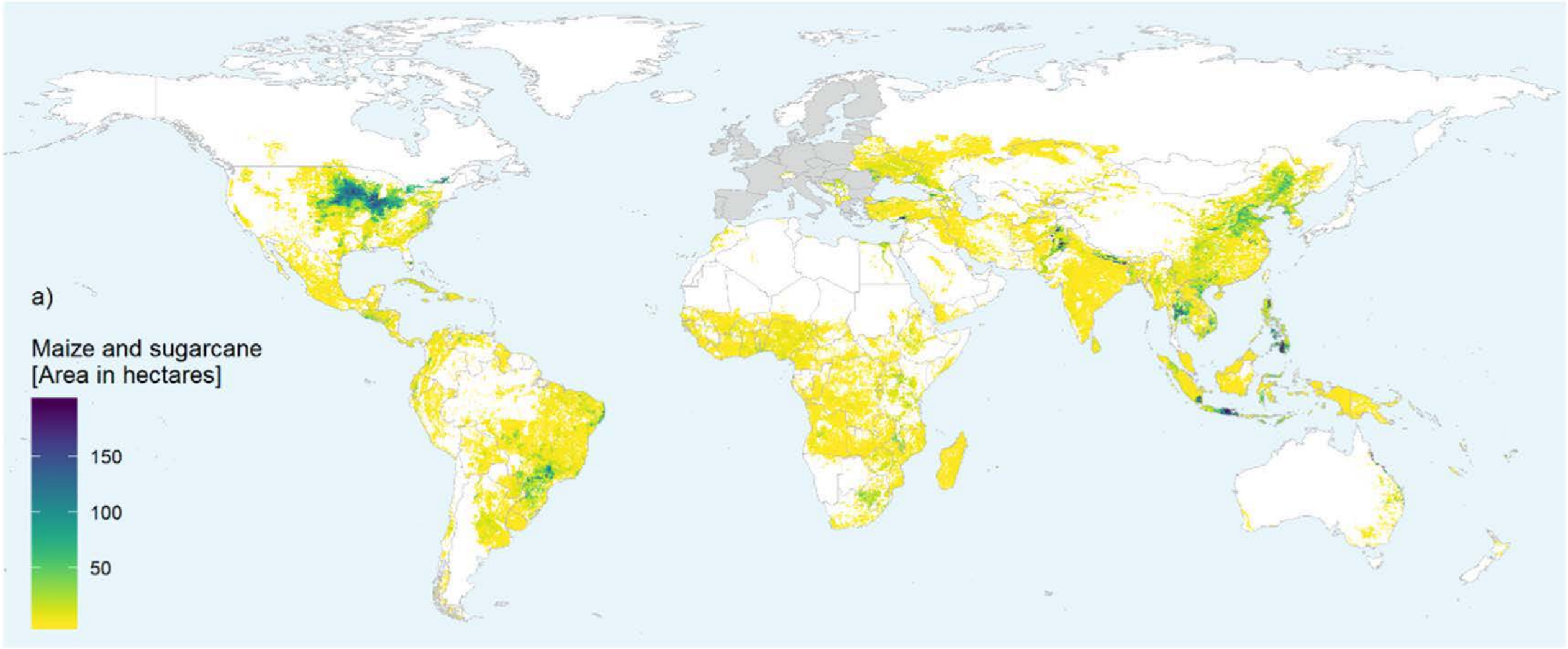
Otero et al. (2020) *Conservation Lett.*

3. Economic growth in bioeconomy strategies



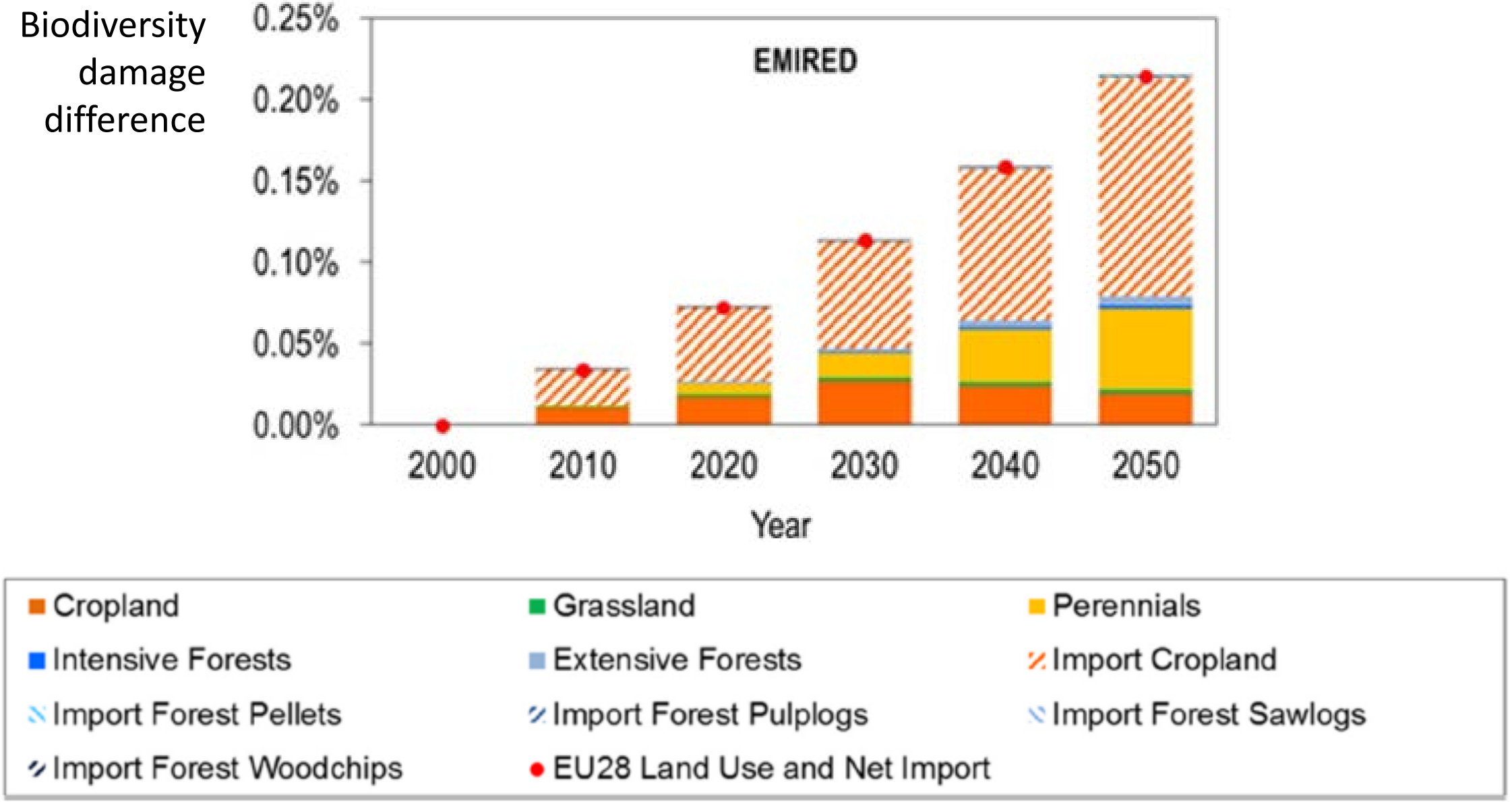
Hausknost et al. (2017) *Sustainability*

4. Bioeconomy and biodiversity

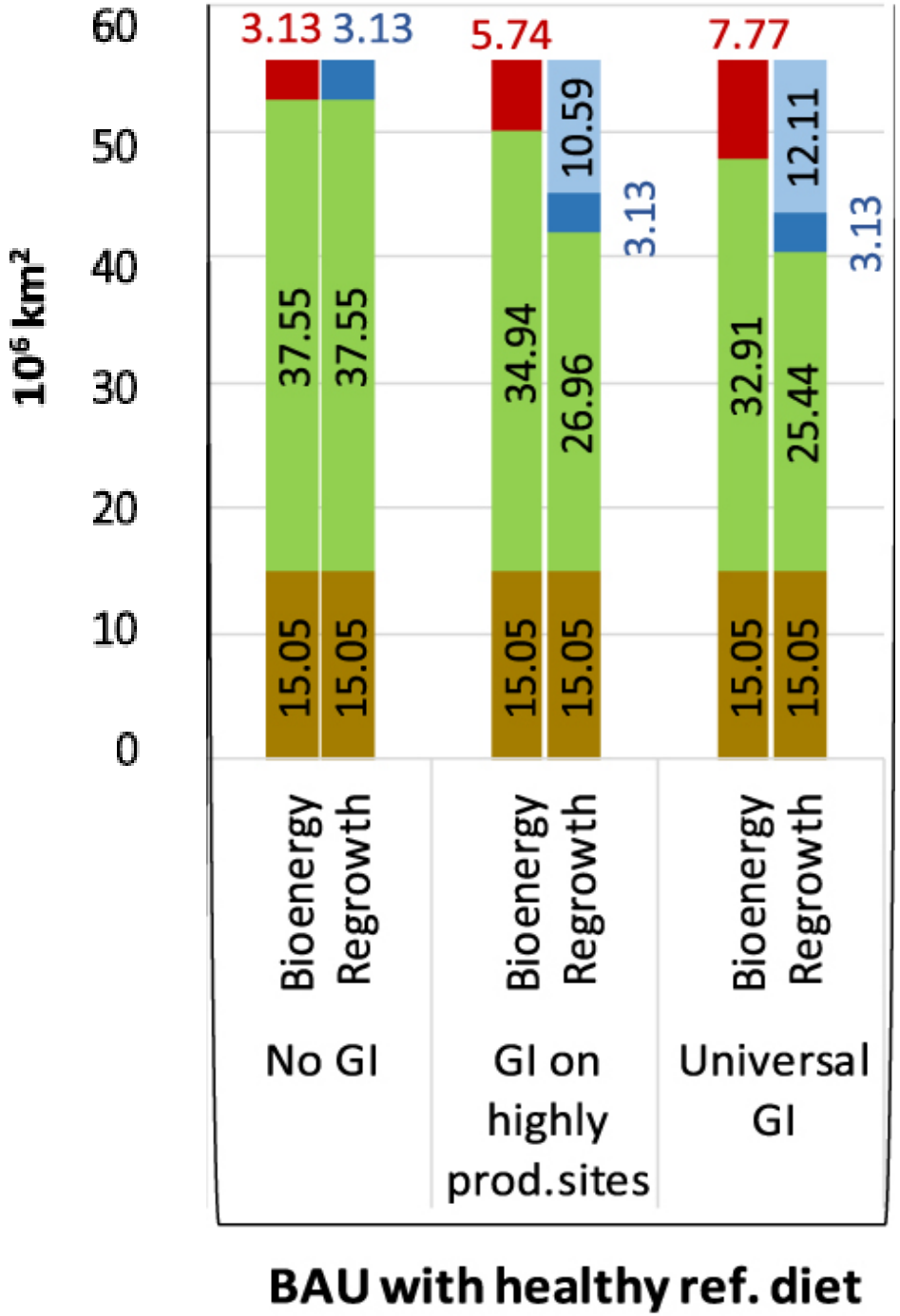


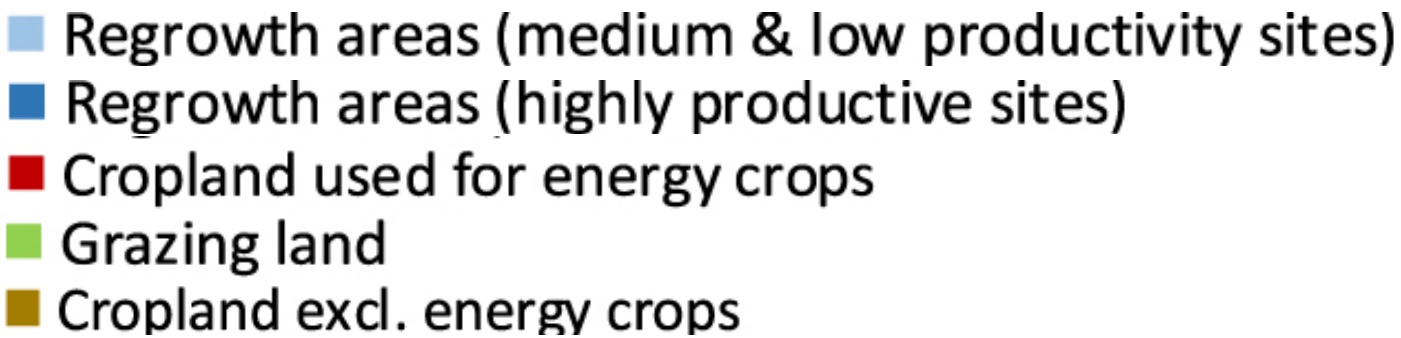
Bruckner et al. (2019) *Environ. Res. Lett.*

Biodiversity damage difference



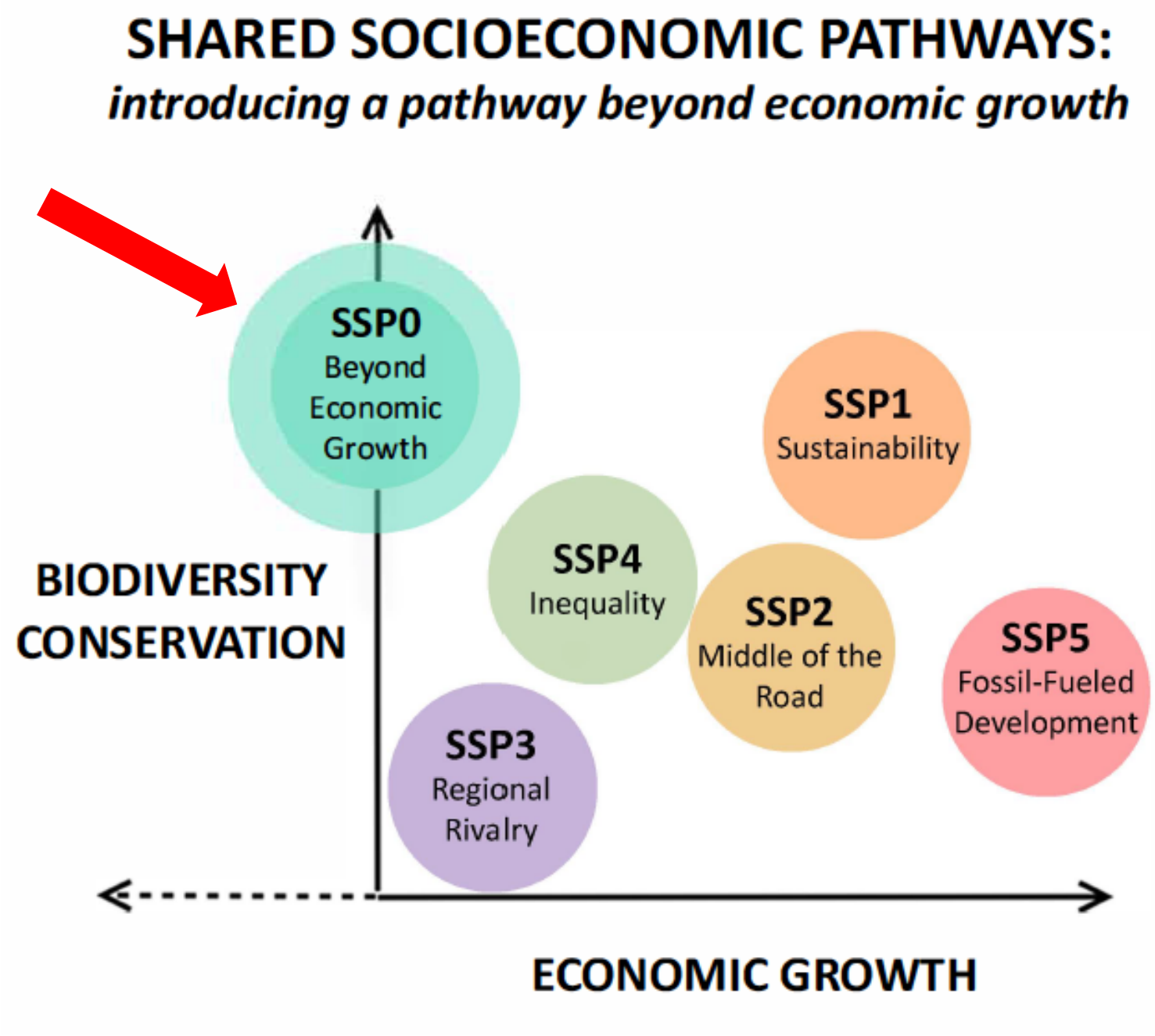
Di Fulvio et al. (2019) *Science Tot. Env.*





Kalt et al. (2020) *Environ. Res. Lett.*

5. A biodiversity scenario beyond economic growth. What place for the bioeconomy?



Otero et al. (2020)
Conservation Lett.

Some points to consider

- Land-use displacement impacts on biodiversity.
- Biodiversity-friendly combinations of biomass sources at regional and national scales.
- Strategies to mitigate impacts of (growing) biomass demand.

  e.g. forest management planning.
- Biodiversity-friendly bioeconomy pathways.

  e.g. shift towards plant-based diets or drastic reduction in energy demand.
- Which economic (GDP) growth rates (+/-) are compatible with biodiversity and wellbeing targets?

Thank you !