

FOOD IMPACTS ON WILD SPECIES EXTINCTIONS

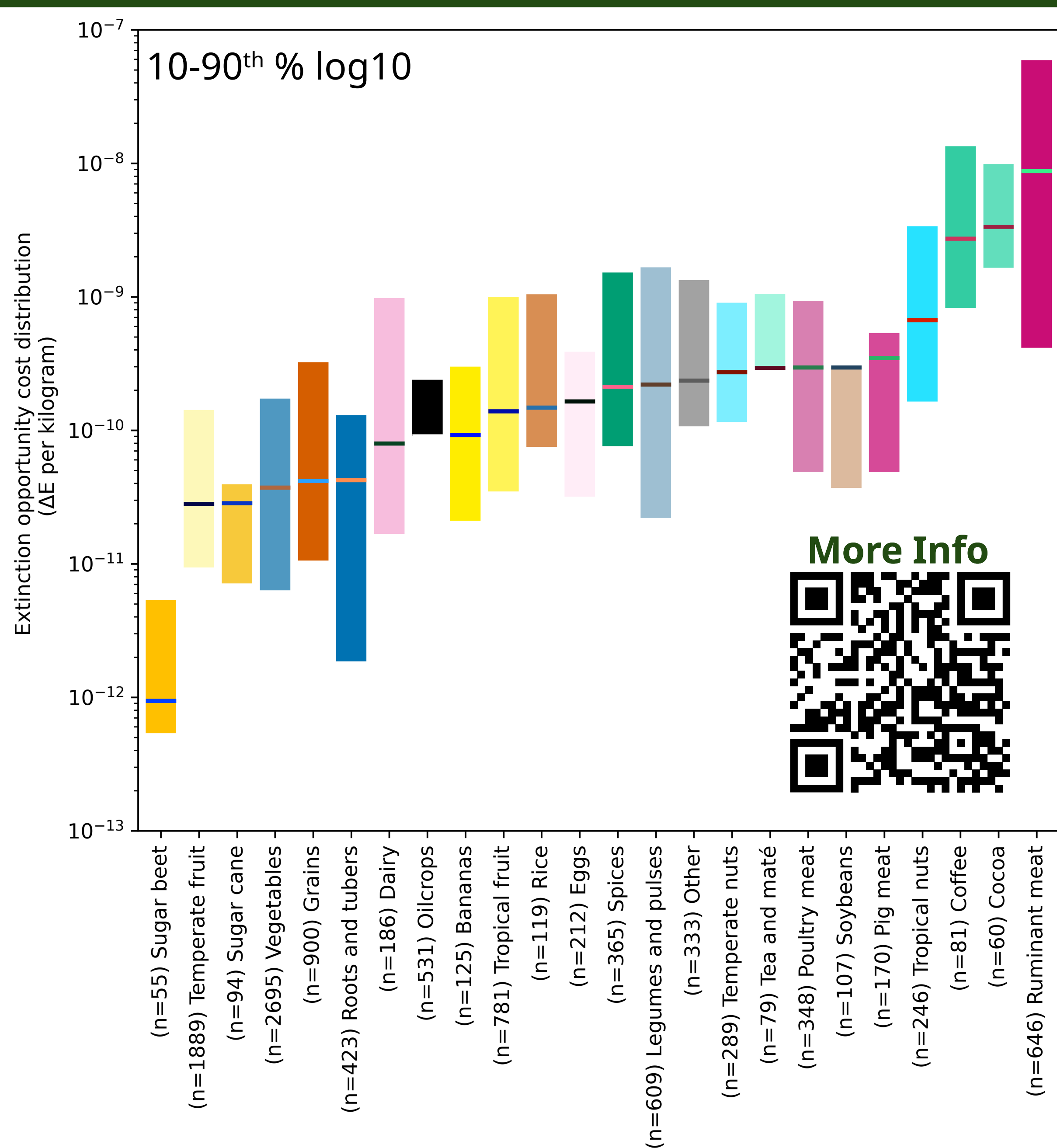
Thomas S Ball, Louis De Neve, Andrew Balmford, *et. al.*



Cambridge Conservation Initiative



Global Impact Distribution

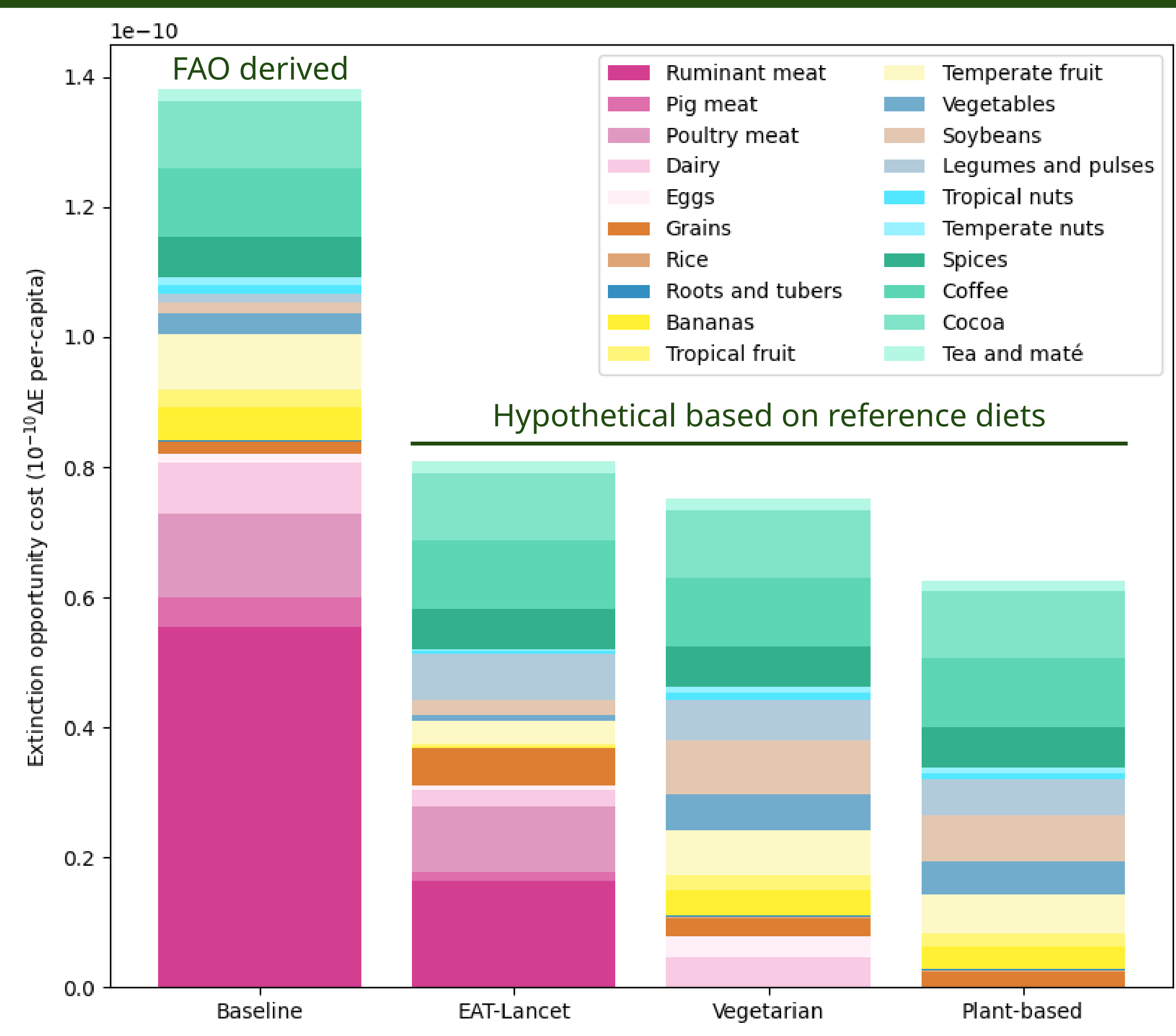


The impacts of agriculture [1]

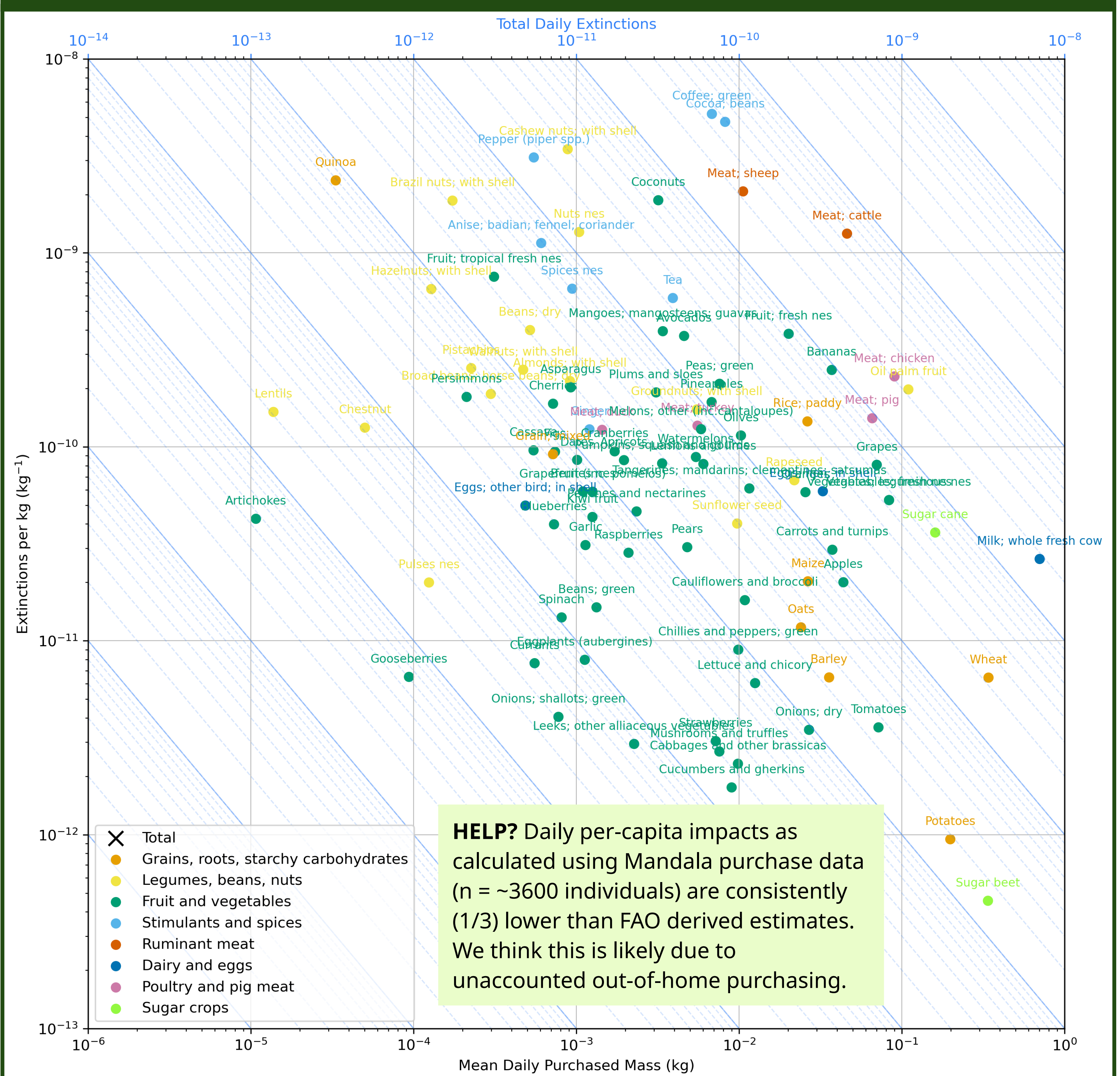
Agriculture is by far the most salient threat to the future of biodiversity, with habitat destruction for agricultural land use driving the majority of anthropogenic extinctions [2]. The 'Land-cover Impacts on Future Extinctions' (LIFE [3]) metric quantifies the marginal change in mean extinction risk above background for 30,000 terrestrial vertebrates. We coupled LIFE with crop and pasture distribution data (MAPSPAM, HYDE) and production, consumption, and trade data (FAOSTAT) via an MRIO model to estimate the impacts of food on wild species. This method can be used to explore impacts at all scales, from the content of a sandwich, to national food policies.



UK Consumption impacts (FAO)



Consumption impacts UK (empirical data)



[1] Ball, T.S., Dales, M., Eyres, A. *et al.* Food impacts on species extinction risks can vary by three orders of magnitude. *Nat Food* 6, 848–856 (2025). [2] Tilman, D., Clark, M., Williams, D. *et al.* Future threats to biodiversity and pathways to their prevention. *Nature* 546, 73–81 (2017). [3] Alison Eyres, Thomas S. Ball, & Andrew Balmford, *et. al.*; LIFE: A metric for mapping the impact of land-cover change on global extinctions. *Philos. Trans. R. Soc. Lond. B Biol. Sci.* 9 January 2025; 380 (1917): 20230327.