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2023

Aspectos ecológicos de la ganadería

Pablo Manzano

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Current Biology

CellPress

Review

The role of large wild animals in climate change mitigation and adaptation

Yadvinder Malhi[1,*], Tonya Lander[2], Elizabeth le Roux[1,3], Nicola Stevens[1], Marc Macias-Fauria[4], Lisa Wedding[4], Cécile Girardin[1], Jeppe Ågård Kristensen[1,3], Christopher J. Sandom[5,6], Tom D. Evans[7], Jens-Christian Svenning[3], and Susan Canney[8]

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https://doi.org/10.1016/j.cub.2022.01.041

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¿De qué ecosistemas hablamos?

- Bond

Journal of Vegetation Science 16: 261-266, 2005
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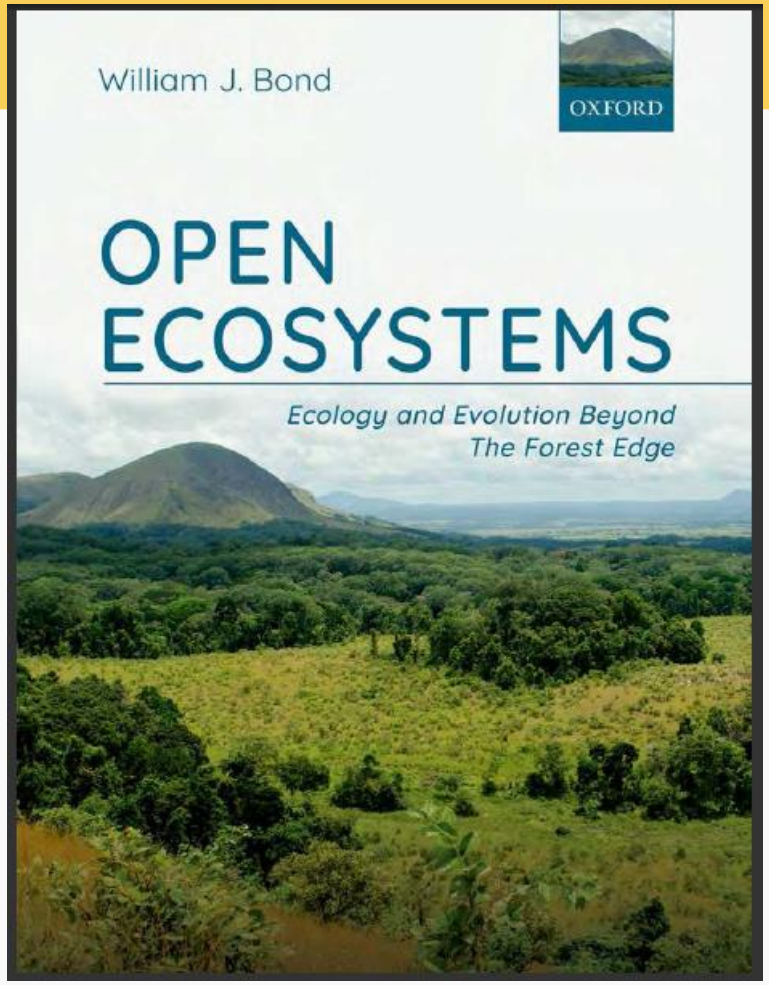
INVITED PERSPECTIVE

Large parts of the world are brown or black: A different view on the 'Green World' hypothesis

Bond, William J.

Botany Department, University of Cape Town, Private Bag, Rondebosch, 7701, South Africa; Fax +27 216504041; E-mail bond@botzoo.uct.ac.za

Abstract. Climate sets the limits to plant growth but does climate determine the global distribution of major biomes? I suggest methods for evaluating whether vegetation is largely climate or consumer-controlled, focusing on large mammal herbivores and fire as influential consumers. Large parts of the world appear not to be at equilibrium with climate. Consumer-controlled ecosystems are ancient and diverse. Their distinctive ecology warrants special attention.



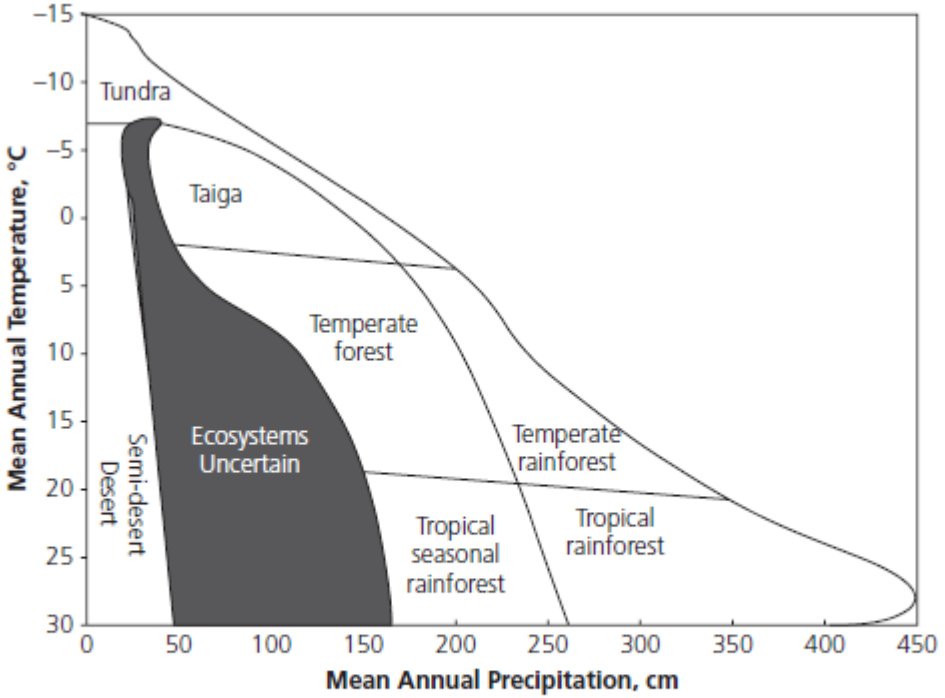
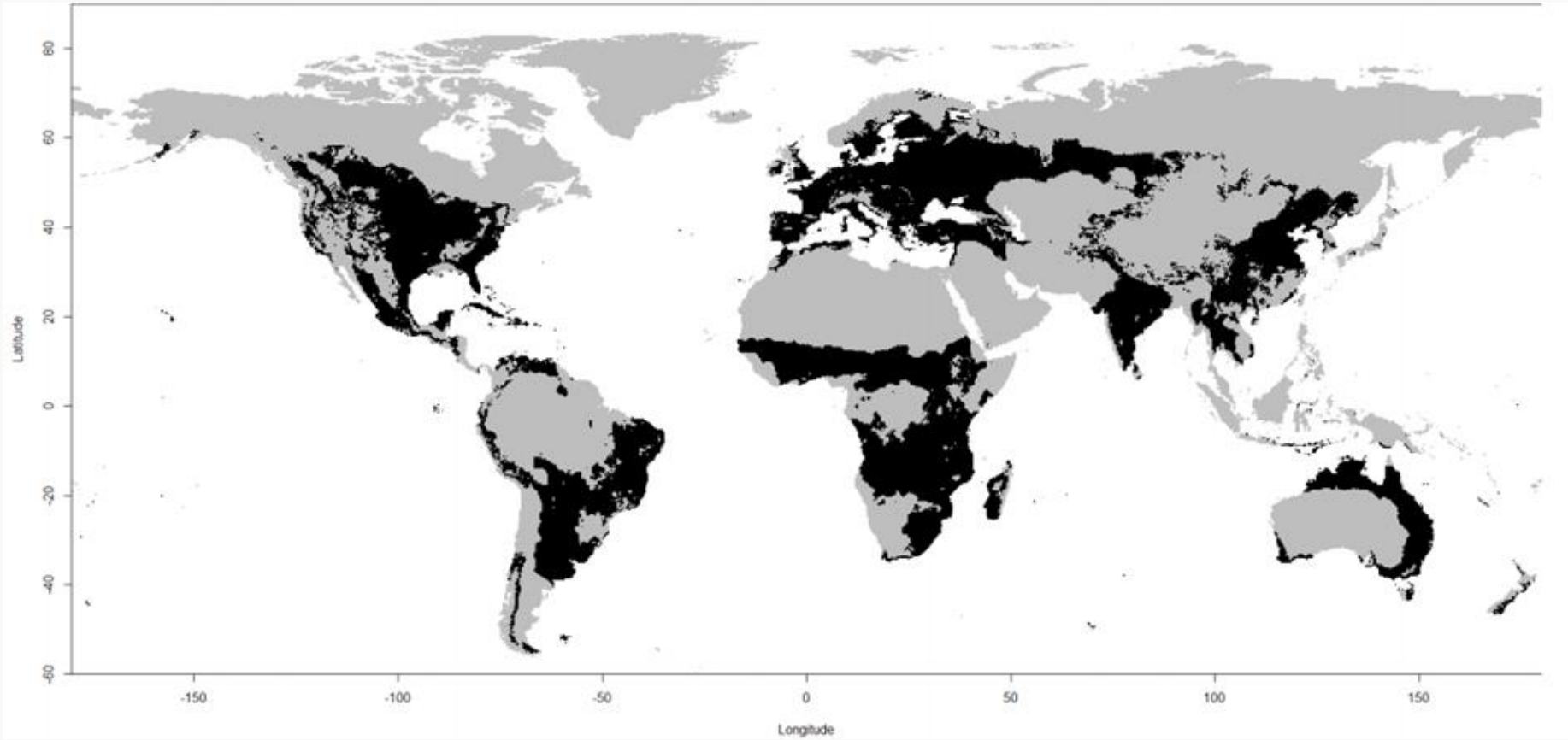


Figure 2.2 Whittaker's climate envelopes for major world vegetation formations. The shaded area is the climate envelope where ecosystems are uncertain and 'either grassland, or one of the types dominated by woody plants, may form the prevailing vegetation in different areas' (redrawn from Whittaker 1975, p. 65).

Extensión de los ecosistemas abiertos



Thompson et al 2023 *Animal Frontiers* DOI: 10.1093/af/vfac094

- Gestión por pueblos indígenas

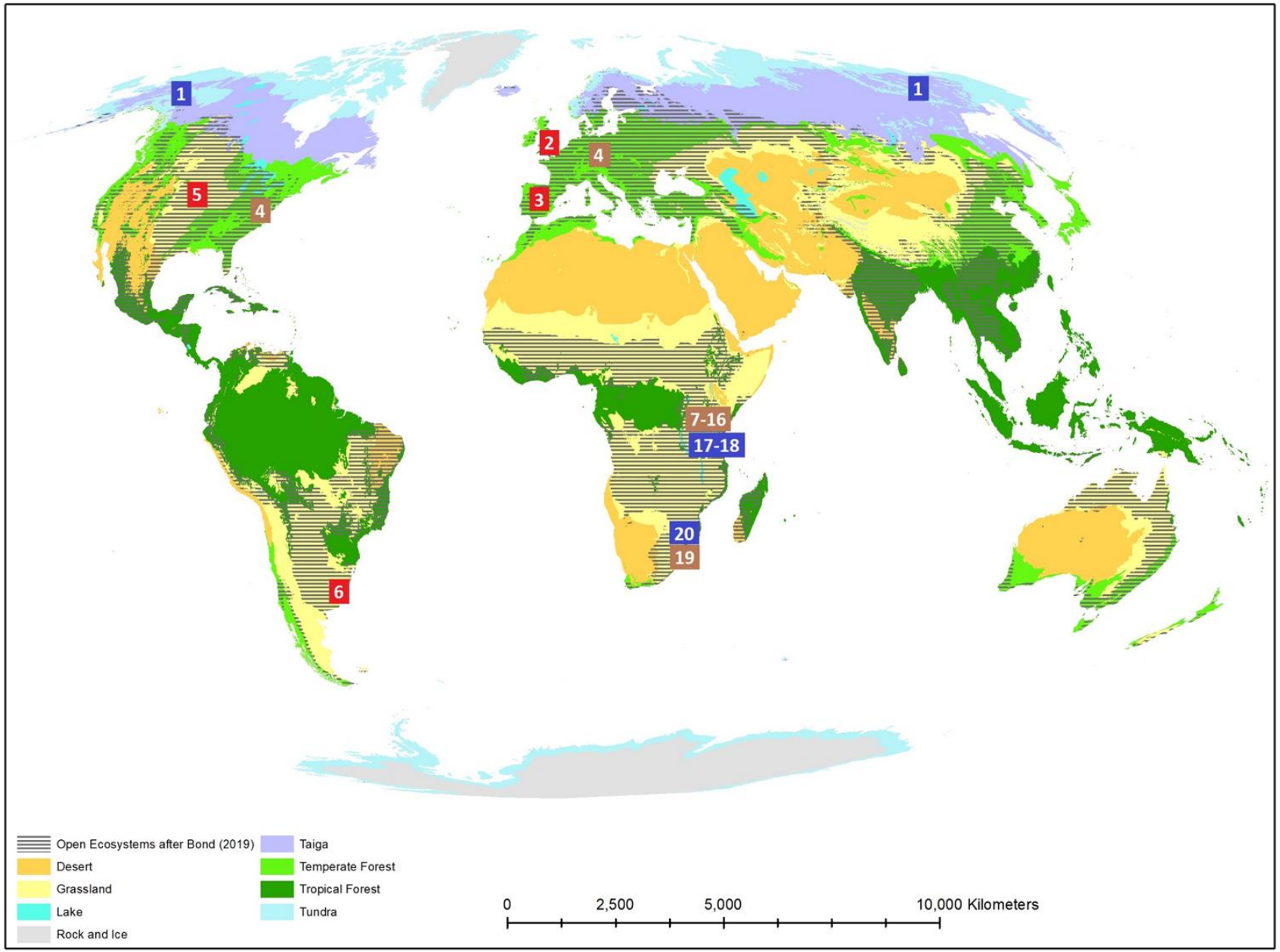
  - Cazadores-recolectores

  - Pastores

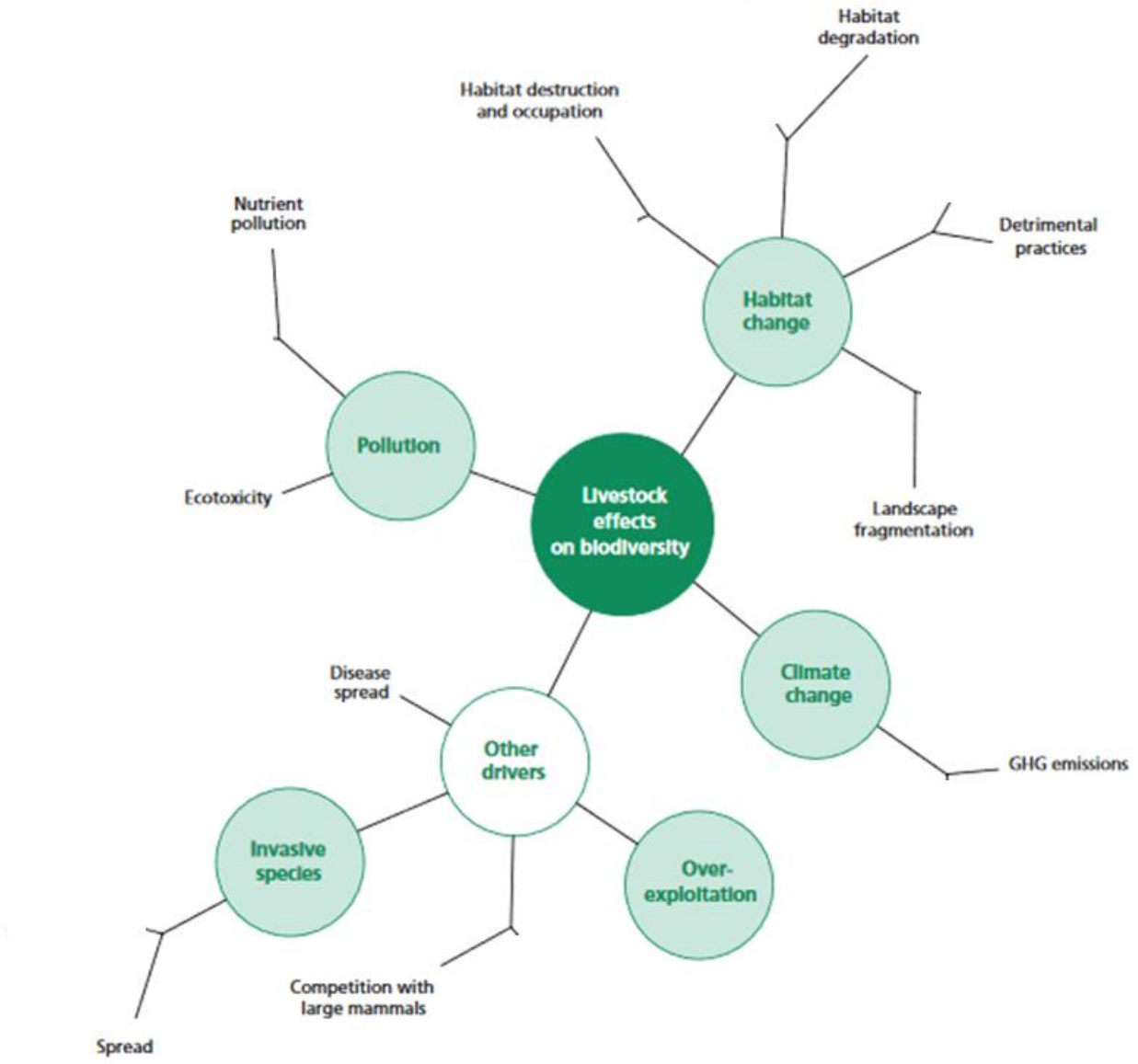
⇒ ¡Siempre con el objetivo de crear pasto!

Biome	Area (billions ha)	Vegetation	Soil	TOTAL	ratio (t C/ha)	aerial t C per ha	soil t C per ha
Trop forest	1,76	212	216	428	243,18	120,45	122,73
Temp forest	1,04	59	100	159	152,88	56,73	96,15
Bor forest	1,37	88	471	559	**408,03**	64,23	343,80
Trop savanna	2,25	66	264	330	146,67	29,33	117,33
Temp grassl	1,25	9	295	304	243,20	7,20	236,00
Deserts & semid	4,55	8	191	199	43,74	1,76	41,98
Tundra	0,95	6	121	127	133,68	6,32	127,37
Wetlands	0,35	15	225	240	685,71	42,86	642,86
Croplands	1,6	3	128	131	81,88	1,88	80,00
TOTAL	15,12	466	2011	2477	163,82		

IPCC. 2000. IPCC Special Report. Climate Land Use, Land-Use Change, and Forestry. Summary for Policymakers. WMO, UNEP. ISBN: 92-9169-114-3.
archive.ipcc.ch/pdf/special-reports/spm/srl-en.pdf



Manzano et al 2023 *npj Biodiversity* DOI: 10.1038/s44185-022-00005-z



Teillard et al 2016
https://www.fao.org/3/av151e/av151e.pdf#page=34

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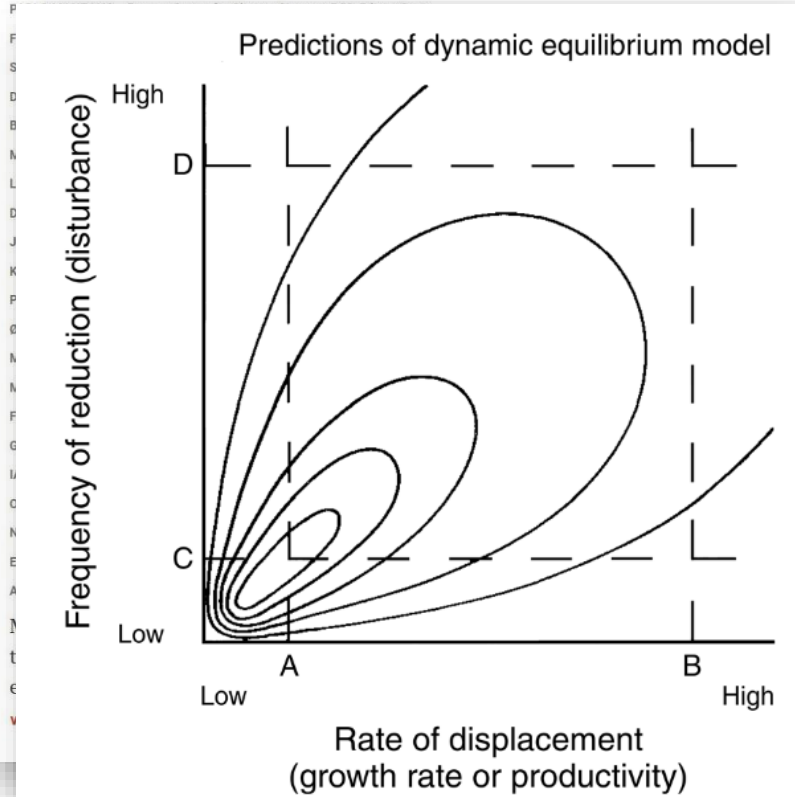
eLetters (2)

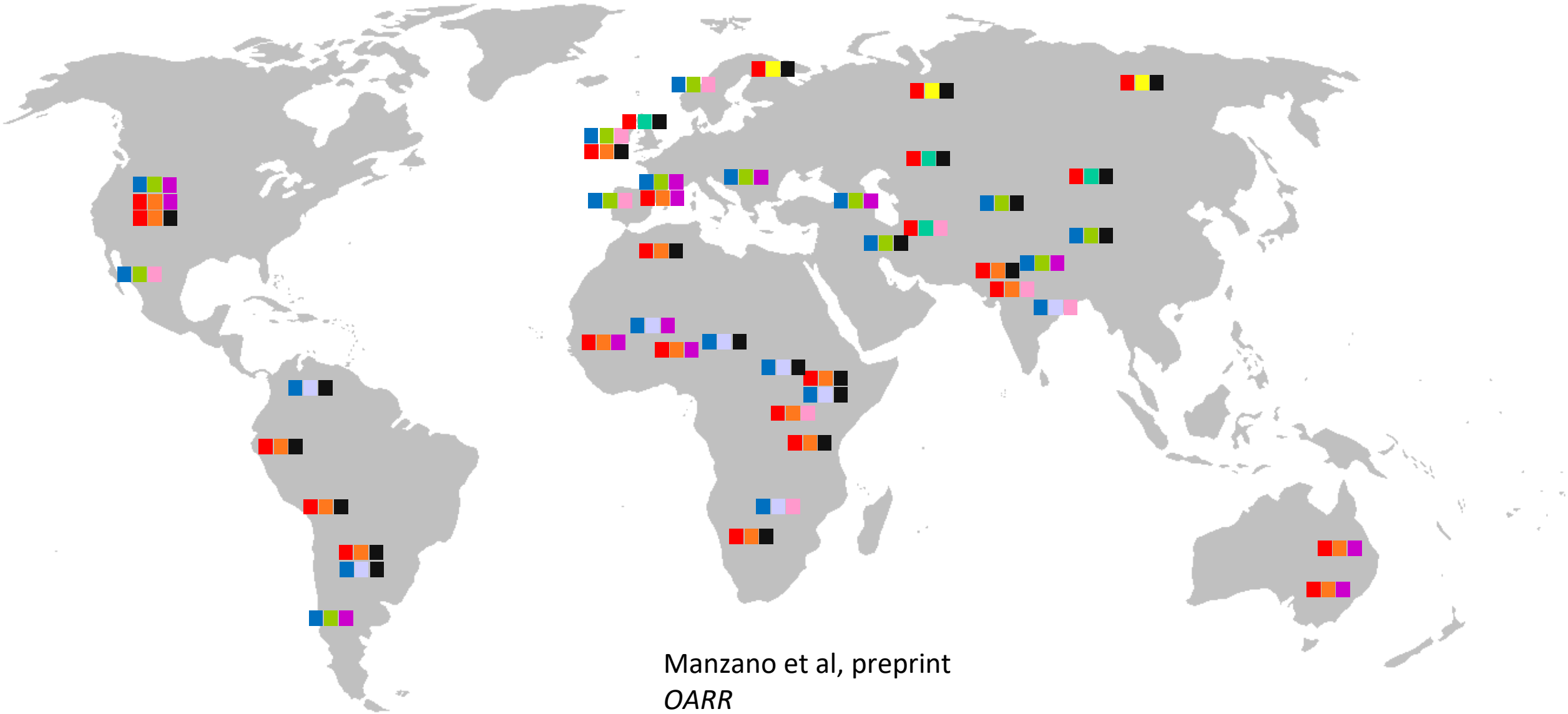
MAR. 27, 2023

Grazing research should consider mobility and governance



Huston 1994: Fig. 5.10

Tipos de pastoreo móvil



Manzano et al, preprint
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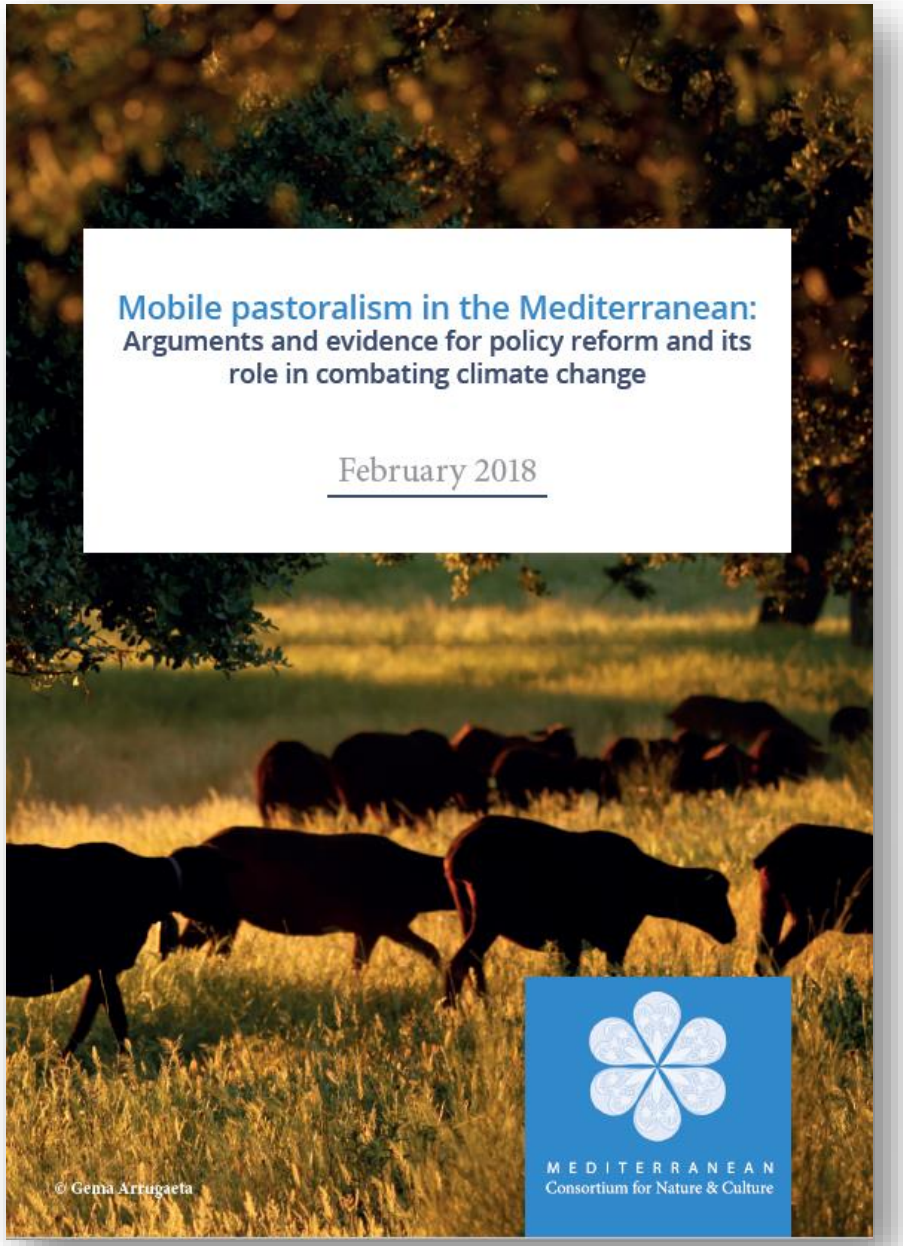

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Perspective

Toward a holistic understanding of pastoralism

Pablo Manzano,[1,2,16] Daniel Burgas,[3,16] Luis Cadahía,[4,16] Jussi T. Eronen,[2,5,6] Álvaro Fernández-Llamazares,[1,2] Slimane Bencherif,[7] Øystein Holand,[8] Oula Seitsonen,[9,10] Bayarmaa Byambaa,[11] Mikael Fortelius,[12] María E. Fernández-Giménez,[13] Kathleen A. Galvin,[14,15] Mar Cabeza,[1,2,17,*] and Nils Chr. Stenseth[4,*]

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*Correspondence: mar.cabeza@helsinki.fi (M.C.), n.c.stenseth@mn.uio.no (N.C.S.)
https://doi.org/10.1016/j.oneear.2021.04.012

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BRIEF COMMUNICATION OPEN
Check for updates

Comparable GHG emissions from animals in wildlife and livestock-dominated savannas

Pablo Manzano[1,2,3,4], Agustín del Prado[3,4] and Guillermo Pardo[3]✉

The International Journal of Life Cycle Assessment
https://doi.org/10.1007/s11367-023-02135-3
LCA FOR AGRICULTURE

Carbon footprint of transhumant sheep farms: accounting for natural baseline emissions in Mediterranean systems

Guillermo Pardo[1] · Raquel Casas[2] · Agustín del Prado[1,3] · Pablo Manzano[1,3,4,5]

Received: 12 July 2022 / Accepted: 11 January 2023

https://youtu.be/-9ku3t9JesM

PeerJ

Herbivore corridors sustain genetic footprint in plant populations: a case for Spanish drove roads

Alfredo García-Fernández[1], Pablo Manzano[2,3,4], Javier Seoane[3], Francisco M. Azcárate[3], Jose M. Iriondo[1] and Begoña Peco[3]

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[2] Commission on Ecosystem Management, International Union for Conservation of Nature, Nairobi, Kenya
[3] Terrestrial Ecology Group—Departamento de Ecología, Centro de Investigación en Biodiversidad y Cambio Global (CIBC), Universidad Autónoma de Madrid, Madrid, Spain
[4] HELSUS, Faculty of Biological and Environmental Sciences, University of Helsinki, Helsinki, Finland

Landsc Ecol
https://doi.org/10.1007/s10980-023-01783-y
RESEARCH ARTICLE

Herbivory baseline estimates in Spanish protected areas, and environmental implications

Rubén Serrano-Zulueta · Guillermo Pardo · Ferran Pauné · Agustín del Prado · Pablo Manzano

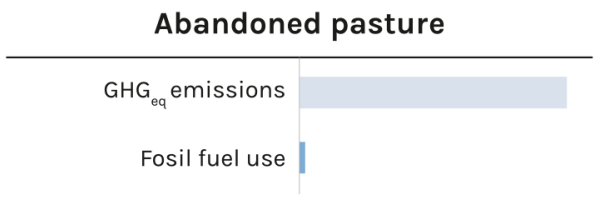
Vol. 77: 91–97, 2019
https://doi.org/10.3354/cr01555
CLIMATE RESEARCH
Clim Res
Published online February 21
OPINION PIECE

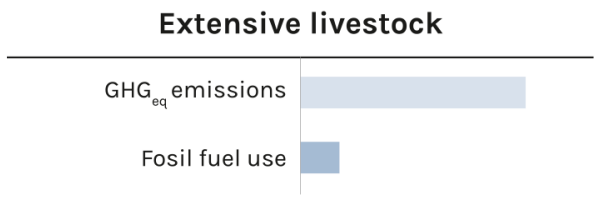
Intensifying pastoralism may not reduce greenhouse gas emissions: wildlife-dominated landscape scenarios as a baseline in life-cycle analysis

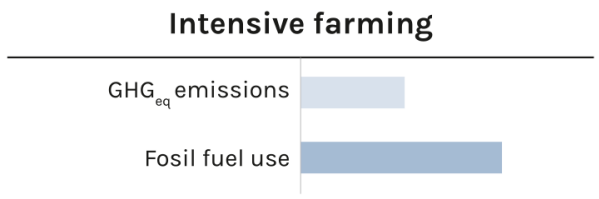
P. Manzano[1,2,*], S. R. White[3,4]

Challenges for the balanced attribution of livestock's environmental impacts: the art of conveying simple messages around complex realities

Pablo Manzano,[†,‡,●] Jason Rowntree,[‖,●] Logan Thompson,[§,●] Agustín del Prado,[†,‡,●] Peer Ederer,[¶,●] Wilhelm Windisch,[**,●] and Michael R.F. Lee[††,●]







Manzano & White (2019) https://doi.org/10.3354/cr01555

nature sustainability

BRIEF COMMUNICATION

https://doi.org/10.1038/s41893-020-00603-4

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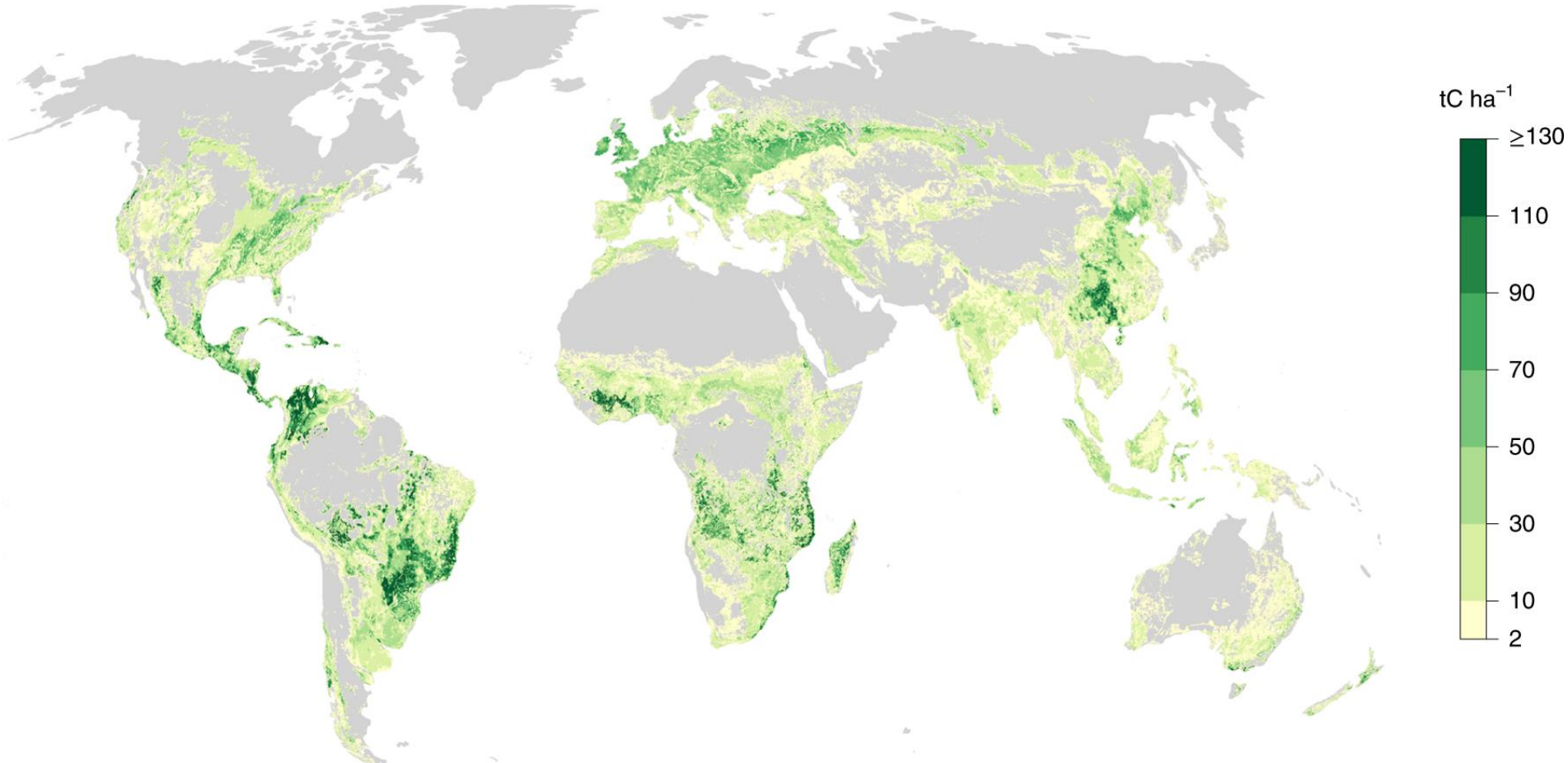
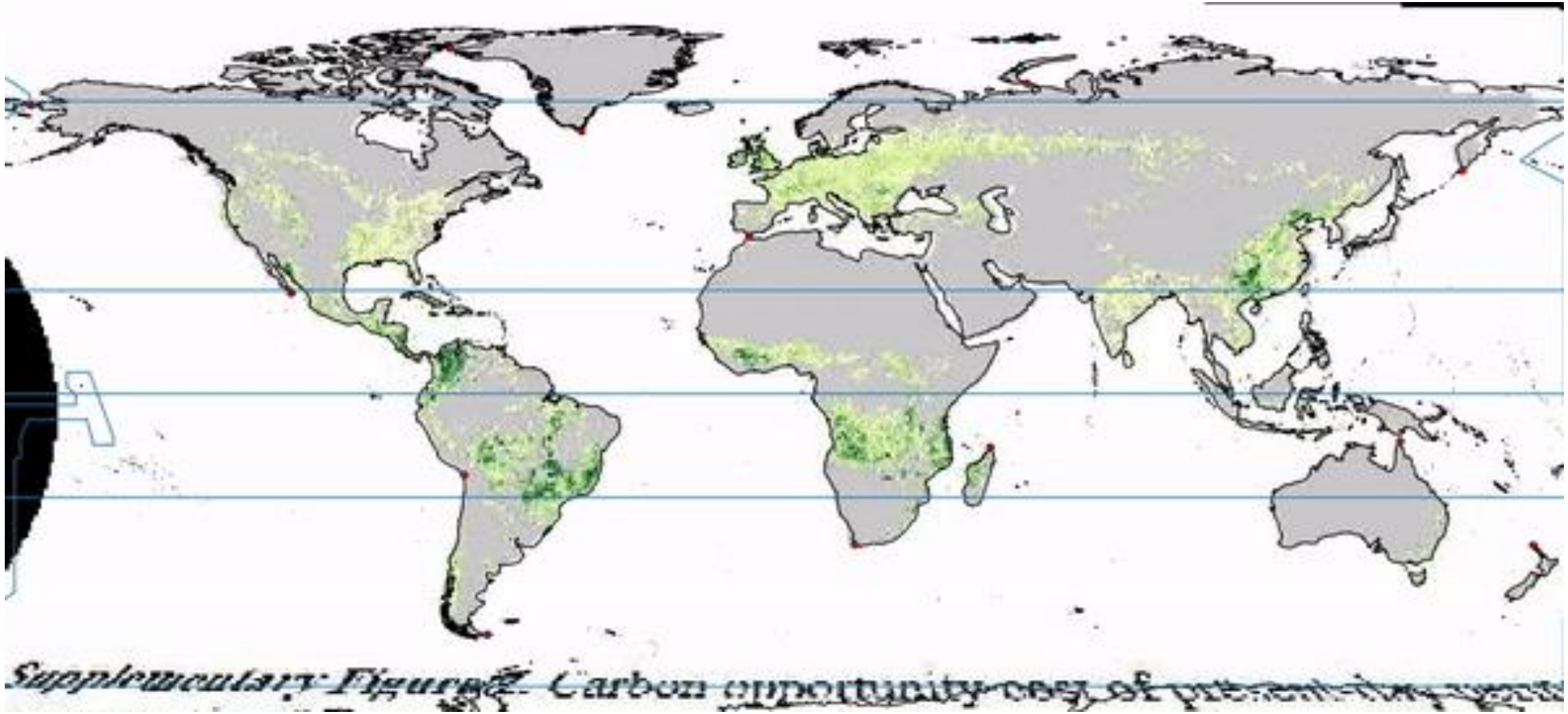
The carbon opportunity cost of animal-sourced food production on land





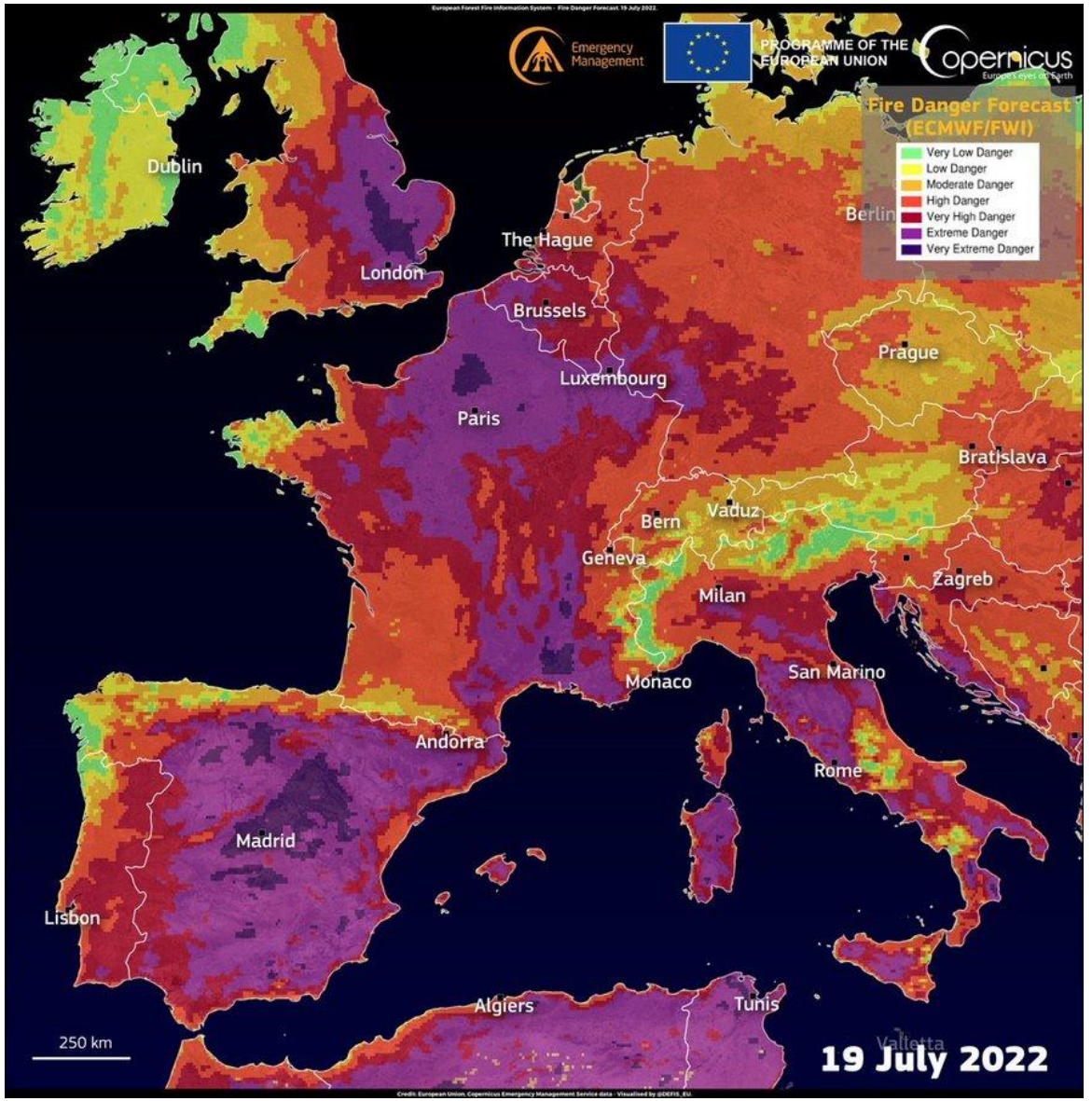
Ejemplo: “**pastos permanentes** a bosque”.

¿Quién gana?

- Petroleras
- Aerolíneas
- Automoción

shifts in global food production to plant-based diets by 2050 could lead to sequestration of 332–547 $GtCO_2$, equivalent to 99–163% of the CO_2 emissions budget consistent with a 66% chance of limiting warming to 1.5 °C.

Cumulative CO_2 emissions (anthropogenic emissions minus removal) must remain below 335 $GtCO_2$ after 2019 to limit warming to 1.5 °C at a 66% likelihood level[14]. CO_2 removal from terrestrial vegetation following ELC or VGN dietary shifts would increase permissible CO_2 emissions by 99% (63%–137%) or 163% (107%–222%), respectively. Adding net CO_2 uptake by native ecosystem soil and litter to this total increases the 1.5 °C budget by 139% or 230%, respectively.


European Forest Fire Information System - Fire Danger Forecast 19 July 2022
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Europe's eyes on Earth
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Moderate Danger
High Danger
Very High Danger
Extreme Danger
Very Extreme Danger
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Paris
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Andorra
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Madrid
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250 km
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¡GRACIAS!

+ info:
@PabloPastos

Agradecimientos a

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