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

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Abstract

Extensive land uses to meet dietary preferences incur a ‘carbon opportunity cost’ given the potential for carbon sequestration through ecosystem restoration. Here we map the magnitude of this opportunity, finding that shifts in global food production to plant-based diets by 2050 could lead to sequestration of 332–547 GtCO₂, equivalent to 99–163% of the CO₂ emissions budget consistent with a 66% chance of limiting warming to 1.5 °C.

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