OPPORTUNITY GREEN

Missed opportunities: the lack of agricultural methane emissions regulation in the UK and the associated legal risks

Legal Briefing | May 2026

Executive summary

Agriculture is the largest source of anthropogenic methane emissions globally and accounts for nearly half of methane emissions in the UK.[1, 2] Despite this, the UK does not currently regulate methane emissions through binding, sector-specific targets or comprehensive policy measures.

This briefing finds that the UK's existing legal and policy framework is insufficient to deliver methane emissions reductions consistent with the climate commitments of the Paris Agreement. Current policies are fragmented and lack enforceable targets. Independent analysis indicates that planned measures fall significantly short of the UK's international and national climate commitments.

This regulatory gap creates a growing legal risk for the UK government. Recent jurisprudence from the European Court of Human Rights found that states have positive obligations to implement effective regulatory frameworks to mitigate climate-related harms. Given methane's direct impact on global warming, and indirect impacts on human health, the UK's failure to regulate agricultural methane through binding, sector-specific measures may expose it to legal challenge.

[1] International Energy Agency (IEA), 'Methane and climate change' (*Methane Tracker*, 2021) https://www.iea.org/reports/methane-tracker-2021/methane-and-climate-change accessed 25 May 2026.
[2] Department for Environment, Food & Rural Affairs (DEFRA), 'Agri-climate report 2024' (November 2025) https://www.gov.uk/government/statistics/agri-climate-report-2024/agri-climate-report-2024 accessed 25 May 2026.

Limitations: it is acknowledged that a large proportion of methane emissions come from fossil fuels, however this note only deals with agricultural methane emissions. This is because agriculture is the most significant contributor to global anthropogenic methane emissions and has not been addressed to the same extent as fossil fuel-related methane emissions.[3]

The significance of methane

Methane is a highly potent greenhouse gas (GHG), responsible for approximately 30% of global warming since pre-industrial times.[4] It is second only to carbon dioxide (CO_2) in driving global warming.[5] Methane is also a precursor of tropospheric ozone, a harmful air pollutant and GHG with direct negative impacts on human health.[6]

Unlike CO_2, methane has a relatively short atmospheric lifespan of around 10-12 years. However, methane's global warming power is 80 times that of CO_2 in the first 20 years after emission.[7] Therefore, rapid reductions in methane emissions could act as a short-term 'emergency brake' to climate change.[8] Reducing methane emissions is also said to be the most cost-effective method to slow global warming in the near term.[9, 10]

Despite this, methane emissions are often overlooked in global climate discussions.[11, 12] The United Nations Environment Programme (UNEP), in its Global Methane Assessment, concludes that global methane emissions must fall by 40-45% by 2030 to achieve least cost-pathways that meet the 1.5°C Paris Agreement target.[13] And yet, more recent analysis by UNEP indicates that full implementation of current national commitments would only deliver an 8% reduction in anthropogenic methane emissions by 2030 compared to 2020 levels.[14] More worryingly still, UNEP has found that in 1.5°C and 2°C-consisent scenarios developed for the Intergovernmental Panel on Climate Change Sixth Assessment Report,[15] methane emissions must decrease by more than 50% by 2050 compared to 2020 levels. Currently implemented legislation would see total methane emissions increase to 21% above 2020 levels by 2050.[16] Notwithstanding these

[3] The UK government report that methane emissions from the UK energy sector have been reduced by 84% between 1990 and 2020 (Department for Energy Security & Net Zero (DESNZ) and Department for Business, Energy & Industrial Strategy (BEIS), 'United Kingdom methane memorandum' (November 2022) https://www.gov.uk/government/publications/united-kingdom-methane-memorandum/united-kingdom-methane-memorandum accessed 25 May 2026).
[4] IEA, 'Global Methane Tracker 2023' (2023) https://www.iea.org/reports/global-methane-tracker-2023 accessed 25 May 2026.
[5] Climate and Clean Air Coalition (CCAC) and UNEP, 'Global methane assessment: benefits and costs of mitigating methane emissions' (May 2021) 18 https://wedocs.unep.org/handle/20.500.11822/35913 accessed 25 May 2026.
[6] Clean Air Fund 'Accelerating action on tropospheric ozone: a strategic roadmap for 2025 – 2030' (June 2025) https://www.cleanairfund.org/resource/accelerating-action-on-tropospheric-ozone/ accessed 25 May 2026.
[7] UNEP, 'What you need to know about methane' (19 July 2024) https://www.unep.org/explore-topics/energy/facts-about-methane accessed 25 May 2026.
[8] Climate Crisis Advisory Group, 'Methane: the emergency brake for climate heating' (September 2025) https://www.ccag.earth/reports/methane-the-emergency-brake-for-climate-heating accessed 25 May 2026.
[9] CCAC and UNEP (n 5) 8.
[10] Z Stiniaszek *et al*, 'The role of future anthropogenic methane emissions in air quality and climate', (2022) 5 (21) NPJ Climate and Atmospheric Science https://doi.org/10.1038/s41612-022-00247-5.
[11] For example, the recent EU Methane Regulation, Regulation (EU) 2024/1787, does not include agricultural methane.
[12] Maria Olczak, Anrid Piebalgs and Paul Balcombe, 'A global review of methane policies reveals that only 13% of emissions are covered with unclear effectiveness' (2023) 6 One Earth https://doi.org/10.1016/j.oneear.2023.04.009.
[13] CCAC and UNEP (n 5) 9.
[14] United Nations Environment Programme (UNEP), 'Global Methane Status Report 2025' (November 2025) 17 https://www.unep.org/resources/report/global-methane-status-report-2025 accessed 25 May 2026.
[15] Intergovernmental Panel on Climate Change, 'Climate Change 2023: Synthesis Report' (IPCC 2023) 5, 115 https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf accessed 25 May 2026.
[16] UNEP (n 14) 19.

projections, most countries do not have specific methane reduction targets or action plans.

This challenge is particularly acute in the context of agriculture – as well as being a high-emitting sector, it is deeply vulnerable to a changing climate. A recent report by the Food and Agriculture Organization of the United Nations (FAO) and the World Meteorological Organization (WMO) set out in no uncertain terms how all aspects of agriculture (including livestock) will be negatively affected by extreme heat.[17] It is abundantly clear that change is required in the agri-food sector, in the interest of global food security, the livelihoods of agricultural workers, and the populations of climate-vulnerable countries.

Agricultural methane emissions in the UK

Agriculture is the most significant contributor to anthropogenic methane emissions globally, responsible for approximately 42% of these emissions.[18] In the UK, the agriculture sector represents 49% of annual methane emissions.[19]

The primary sources of agricultural methane are as follows:

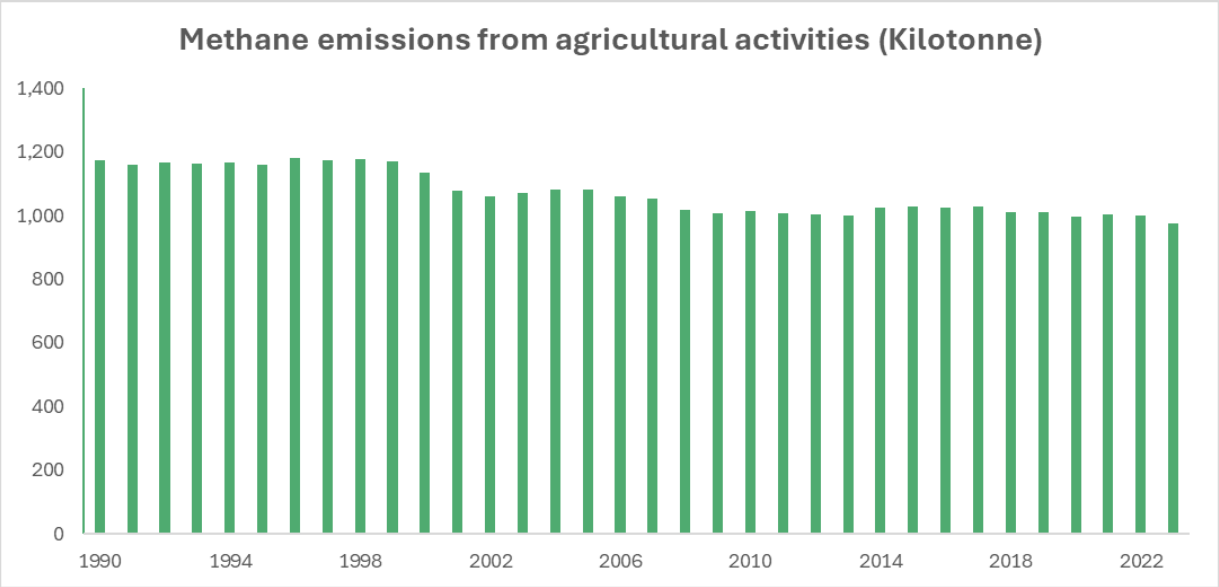
- **Enteric fermentation:** A digestive process in ruminants, such as cows, sheep and goats, that produces methane as a byproduct of their digestion (enteric fermentation). This accounts for roughly 60% of agriculture's methane emissions,[20] making it the single largest source of agricultural methane emissions globally.
- **Manure management:** Manure, when stored as liquid or slurry, creates the ideal conditions for methane-producing microorganisms to thrive, resulting in increased methane emissions.
- **Rice cultivation:** flooded rice paddies create anaerobic conditions which promote methane production by microorganisms.

The main contributor to the UK's agricultural methane emissions is the UK's cattle population, which produced 78% of agricultural methane emissions in 2023.[21]

The UK government aims to be a global lead in methane emissions reductions; they are the co-chair of the Climate and Clean Air Coalition (CCAC) and a champion of the Global Methane Pledge (GMP). A commonly cited statistic of the UK's 'excellent progress' in methane emissions reduction is that between 1990 and 2023, methane emissions in the UK have reduced by 62%.[22] However, this is largely due to closing fossil fuel plants rather than mitigating the impact of agricultural activities, and progress has stalled in recent years. The graph below highlights the stark lack of progress made in reducing methane emissions from agricultural activities in the UK between 1990 and 2023. In those 33 years, methane emissions from agriculture in the UK have only reduced by 17%, meaning an

[17] FAO and WMO, 'Extreme heat and agriculture – FAO-WMO joint report' (2026) Rome and Geneva, https://doi.org/10.4060/cd9394en.
[18] UNEP (n 14) 20.
[19] DEFRA (November 2025) (n 2) section 1.
[20] Swati Hegde, 'From Better Breeding to Cow-Burp Vaccines, Emerging Solutions Could Curb Agricultural Emissions' *World Resources Institute Insights* (6 March 2025) https://www.wri.org/insights/reducing-agricultural-methane-new-solutions accessed 25 May 2026.
[21] As of June 2025, the UK cattle population is approximately 9.3 million – DEFRA 'Livestock populations in the United Kingdom at 1 June 2025' (Updated 26 March 2026) *Accredited official statistics* https://www.gov.uk/government/statistics/livestock-populations-in-the-united-kingdom/livestock-populations-in-the-united-kingdom-at-1-june-2025 accessed 25 May 2026.
[22] DESNZ, 'UK methane action plan (accessible webpage)' (October 2025) https://www.gov.uk/government/publications/uk-methane-action-plan/uk-methane-action-plan-accessible-webpage accessed 25 May 2026.

average reduction in methane emissions from agricultural activities of only 0.5% each year.



Agricultural methane emissions in the UK from 1990 – 2023.[23]

UK laws and policies regulating agricultural methane emissions

The Climate Change Act 2008 (CCA) sets a legally binding target for the UK to reduce GHG emissions to net zero by 2050. The CCA contains no specific methane reduction target. Section 14 of the CCA requires the UK government to set out five-yearly carbon budgets, 12 years in advance. The carbon budget sets a statutory cap on total GHG emissions in the UK. In 2025, the Labour government published their Carbon Budget and Growth Delivery Plan (CBGDP), outlining the UK government's strategy to meet carbon budgets 4 – 6, covering 2023 to 2037.

Encouragingly, the CBGDP acknowledges methane's substantial contribution to agricultural emissions and that establishing specific methane reduction targets could help 'drive down emissions in the agriculture sector'[24] and 'enable more precise monitoring, reporting, and verification of agriculture's most significant GHG.'[25] However, the CBGDP does not set any such specific methane reduction targets – it is left for the Department for Environment, Food and Rural Affairs (DEFRA) to consider.[26]

A supporting document to the CBGDP is the UK's Methane Action Plan (MAP).[27] This came as a welcome development in the regulation of methane emissions after years of a piecemeal and disjointed landscape.[28] The MAP takes some positive steps for agricultural

[23] National Atmospheric Emissions Inventory,' UK emissions data selector' https://naei.energysecurity.gov.uk/data/data-selector/results?classification=2&start_year=1990&end_year=2023&pollutant%5B3%5D=3&sector=3&include_ad=0 accessed 25 May 2026.
[24] DESNZ, 'Carbon Budget and Growth Delivery Plan' (October 2025) 573 https://www.gov.uk/government/publications/carbon-budget-and-growth-delivery-plan accessed 25 May 2026.
[25] *Ibid* 575.
[26] *Ibid* 136, '*Defra will consider whether an emissions target for agriculture as part of a wider package of levers could help further incentivise behaviour to reduce emissions*'.
[27] DESNZ, 'The UK's methane action plan' (n 22) 3.
[28] House of Lords Environment and Climate Change Committee, 'Methane: Keep up the momentum' (HL Paper 45, 10 December 2024) 96 https://publications.parliament.uk/pa/ld5901/ldselect/ldenvcl/45/4502.htm accessed 25 May 2026.

methane, for example committing to progressing the roll-out of more established technologies such as Methane Suppressant Feed Products (MSFPs) and supporting research and development into how farmers can adopt new on-farm technology to help reduce emissions.

However, the MAP misses some key areas for methane mitigation in the agriculture sector, for example failing to mention that efficiency measures alone are unlikely to provide sufficient reductions – wider change to the system, including reduction in cattle products consumed and land use changes, will be required.[29, 30] Critically, the MAP fails to set any quantifiable targets for methane emissions reduction and proposes no new policies.

In November 2022, the UK government published their 'Methane Memorandum'.[31] In this document, the UK government 'recognise[d] the urgency to do more' on methane, however it did not detail any concrete or binding methane emissions reductions targets in the agriculture sector – nor has that urgency been reflected in the MAP.

Assessment of the UK framework

The UK's current approach to agricultural methane emissions, as described above, is characterised by a lack of binding targets, limited regulatory intervention, and reliance on underdeveloped policy measures.

Green Alliance has completed an analysis of the UK's MAP and estimated that methane emissions would only see a 22% reduction by 2030 if all plans were implemented effectively.[32] This is 18-23% less than the estimated reductions necessary to achieve the Paris Agreement temperature goal.[33]

Further still, the Climate Change Committee (CCC), an independent statutory body established under the CCA,[34] has stated 'substantial action [in the agriculture and land use sectors] is needed in the UK to meet future targets' in their recent progress report.[35] Crucially, the CCC also found that *none* of the plans currently in place for the agriculture and land use sector are 'credible', with the majority of plans being classed as having 'significant risks'.[36] Specifically for agricultural methane emissions, details surrounding the government's plans to mandate the use of MSFPs 'remains lacking'.[37] In their 'priority recommendations' for the UK government (Annex 1), the CCC recommends government to 'provide long-term certainty on public funding for farming practices and technologies which reduce emissions from managing crops and livestock.'[38]

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[29] Svetlana Feigin *et al.,* 'Solving climate change requires changing our food systems' (2025) 5(1) Oxford Open Climate Change https://doi.org/10.1093/oxfclm/kgae024%20.

[30] Monica Crippa, *et al.*, 'Food systems are responsible for a third of global anthropogenic GHG emissions' (2021) 2(3) Nature food 198-209 https://doi.org/10.1038/s43016-021-00225-9.

[31] DESNZ and BEIS, 'United Kingdom methane memorandum' (n 3).

[32] Liam Hardy and Matilda Dunn, 'How much action is actually in the UK's Methane Action Plan' (*Green Alliance,* 13th November 2025) https://green-alliance.org.uk/briefing/how-much-action-is-actually-in-the-uks-methane-action-plan/ accessed 25 May 2026.

[33] CCAC and UNEP (n 5) 11.

[34] The CCC undertakes scrutiny of the government's policy progress towards net zero and progress on emissions targets.

[35] CCC, 'Progress in reducing emissions – 2025 report to Parliament' (25 June 2025) https://www.theccc.org.uk/wp-content/uploads/2025/06/Progress-in-reducing-emissions-2025-report-to-Parliament.pdf accessed 25 May 2026.

[36] *Ibid* 82.

[37] *Ibid 91*.

[38] *Ibid* 121.

Manure management is included in the MAP by reference to the Slurry Infrastructure grants scheme.[39] Whilst such grants can be used for impermeable covers to slurry stores,[40] they do not cover the equipment that would be used to capture the methane, meaning the gas will eventually be released into the atmosphere.

Finally, a note on the role of anaerobic digestion of agricultural wastes to produce biomethane, as it is noted in the MAP that government 'intends to consult on a future biomethane policy framework in FY 2025-26'.[41] Whilst it is not refuted that it can be a useful measure for cost-saving on farms, its role in the energy mix is to be carefully considered in light of:

- Discrepancies in inventories of emissions from biogas plants[42] and reported leaks.[43]
- The scope for incentivising industrial livestock production due to the desirability of manure as a feedstock.
- 'Locking in' gas infrastructure can delay grid electrification.
- The expense of anaerobic digestion infrastructure requiring public funding via tariffs.[44]
- The fact it does not address emissions from enteric fermentation, the largest source of agricultural methane emissions globally.

Whilst detailed discussion of energy crops is beyond the scope of this briefing,[45] it is worth noting that anaerobic digestors often operate most efficiently on an appropriately blended feedstock[46, 47] – meaning demand for land for growing such crops competes with food production (even if limits are placed on such food crops[48]).

Overall, this indicates that the UK does not currently have a regulatory framework capable of delivering methane reductions at the scale or pace required to meet its climate obligations.

Recommendations for the UK government

The introduction of a legally binding, sector-specific methane reduction target for agriculture, aligned with a 1.5-2°C pathway, would make the UK the leader – as it purports

[39] DESNZ, 'The UK Methane action plan' (n 22) 8.
[40] DEFRA, 'Item specification and grant contribution in round 2 of the Slurry Infrastructure Grant' (April 2026) https://www.gov.uk/government/publications/slurry-infrastructure-grant-round-2-guidance-for-invited-applicants/item-specification-and-grant-contribution accessed 25 May 2026.
[41] DESNZ, 'The UK methane action plan' (n 22) 15.
[42] Zara Qadir, 'Methane emissions from biogas facilities are underestimated' (*Imperial Sustainable Gas Institute Blog,* 13 May 2021) https://blogs.imperial.ac.uk/sustainable-gas-institute/2021/05/13/methane-emissions-from-biogas-facilities-are-underestimated/ accessed 25 May 2026.
[43] Changing Markets, 'Methane Unmasked' (September 2025) https://changingmarkets.org/press-releases/methane-unmasked/ accessed 25 May 2026.
[44] The Green Gas Support Scheme has just been extended by two years to run to 2030 – DESNZ and BEIS, 'Notice: Green Gas Support Scheme (GGSS): open to applications' (updated December 2025), https://www.gov.uk/government/publications/green-gas-support-scheme-ggss accessed 25 May 2026.
[45] For the avoidance of doubt – as is food waste.
[46] Mariana Ferdeş *et al.* 'Anaerobic Co-Digestion: A Way to Potentiate the Synergistic Effect of Multiple Substrates and Microbial Diversity' (2023) 16(5) Energies https://doi.org/10.3390/en16052116.
[47] Samroot Samreen Wani, Malik Parveez, 'Synergistic effects of anaerobic digestion for diverse feedstocks: A holistic study on feedstock properties, process efficiency, biogas yield, and economic viability' (2025) 87 Energy for Sustainable Development https://doi.org/10.1016/j.esd.2025.101755.
[48] The Green Gas Support Scheme and Renewable Transport Fuel Obligation include such limits.

to be – in global methane emissions reduction. It is also a platform for taking further steps in accordance with international obligations.[49]

Significant opportunities for progress remain. We recommend that the government – and the newly formed Farming and Food Partnership Board – have regard to the legal duties set out in this briefing as they:

- Finalise (and implement) the National Food Strategy and 25-year Farming Roadmap.
- Implement the Land Use Framework.
- Update the Animal Health and Welfare Pathway (on the UK government website, this is noted to have been due in early 2026)[50] – given the October 2025 Environmental Improvement Plan (EIP) refers to using the Pathway to 'work with industry to reduce methane emissions from livestock' to meet the commitment to 'reduce and report on carbon emissions from farming and agricultural practices'.[51]

A holistic way of thinking could streamline action. For example, including methane considerations in the EIP actions regarding slurry (which set out to meet targets set in the Environment Act 2021) could maximise their impact. In manure / slurry storage certain measures that succeed in reducing methane may increase nitrogen emissions (and vice versa).[52, 53] Thinking cross-issue in this way can enable pollution and biodiversity loss linked to agriculture to be tackled alongside the climate impacts.

There are other measures available that could indirectly support methane reduction efforts by bringing greater scrutiny to emissions-intensive farming practices. For example, under the current permitting rules, large cattle farms are exempt from requiring environmental permits to operate, despite dairy farms' slurry being one of the most common causes of incidents affecting water or land in the UK.[54] This is known as the cattle permitting loophole. Whilst not a methane-specific regime, closing this loophole could improve environmental practices on farm which are significantly impacting methane emissions, but also help chip away at agricultural exceptionalism in the UK. The current Labour government has indicated this will be done.[55]

There is no silver bullet – methane reduction will require all participants in the food system (farmers, agribusinesses of all sizes and their financial service providers, retailers, consumers) and whilst technological advances such as those set out in the MAP will play a role, it is unlikely that they will deliver the scope of emissions reduction

[49] There are some examples of countries with methane-specific targets enshrined in their national climate laws, such as Aotearoa New Zealand's Climate Change Response Act 2002, which contains a specific target to reduce methane emissions by 2050. However, the target has recently been downgraded from a 24-47% reduction to 14-24%. There are no examples of countries with agriculture-specific methane targets.
[50] DEFRA, 'Animal Health and Welfare Pathway' (October 2025) https://www.gov.uk/government/publications/animal-health-and-welfare-pathway/animal-health-and-welfare-pathway accessed 25 May 2026.
[51] DEFRA, 'Environmental Improvement Plan (EIP) 2025' (December 2025) https://www.gov.uk/government/publications/environmental-improvement-plan-2025/environmental-improvement-plan-eip-2025 accessed 25 May 2026.
[52] Tim Searchinger *et al.* 'Opportunities to Reduce Methane Emissions from Global Agriculture' (November 2021) Princeton University & Cornell University Discussion Paper https://searchinger.princeton.edu/sites/g/files/toruqf4701/files/methane_discussion_paper_nov_2021.pdf accessed 25 May 2026.
[53] OECD Net Zero +, 'Targeting methane emissions to mitigate the risk of climate overshoot' (*OECD,* 2025) Policy Paper No.14 21https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/04/targeting-methane-emissions-to-mitigate-the-risk-of-climate-overshoot_92b5b4c3/5fa37719-en.pdf accessed 25 May 2026.
[54] Andrew Wasley, 'Government considers tougher rules for cattle mega farmers' (5 February 2026) https://www.thebureauinvestigates.com/stories/2026-02-05/government-considers-tougher-rules-for-cattle-megafarms accessed 25 May 2026.
[55] DEFRA, *A New Vision for Water* (White Paper, CP 1490, 2026) https://www.gov.uk/government/publications/a-new-vision-for-water-white-paper accessed 25 May 2026.

required. The government must ensure the participants needing the most support receive it, and those with the resources and resilience to do so take meaningful action.

Mandatory sustainability reporting standards could play a part in engaging such participants – the recently published voluntary UK Sustainability Reporting Standards[56] may form part of future legislation,[57] which would be a positive step. This would help engage the wider supply chain on the issue – including processors of cattle products, retailers and investors, all groups which have made little progress on emissions reporting and reduction.[58,59,60,61]

Finally, there is the financial aspect. The return on investment on methane action has been clearly set out – in terms of avoided climate damage, food security, improved air quality and inflation exposure.[62, 63]

Learning from other governments

As part of our examination of the regulatory framework in the UK, we have considered the steps taken by other governments to regulate agricultural methane, as set out below.

- The European Commission recently approved a Dutch State Aid scheme in excess of EUR 600m, which will be available for farmers voluntarily reducing the size of their dairy herds. Running until 2029, it will have the benefit of reducing methane emissions in the short term, as well as supporting farmers transitioning to less intensive business models.[64]

- Denmark's 2024 Tripartite Agreement, a landmark initiative to address the urgent need for sustainable land use and agricultural practices, effectively brought together government, industry, and farmers (despite reluctance from the latter) to tackle multiple issues – methane emissions, water pollution and the need for a just transition for farmers.[65]

[56] Department for Business and Trade, 'UK Sustainability Reporting Standards: UK SRS S1 and UK SRS S2' (February 2026) https://www.gov.uk/government/publications/uk-sustainability-reporting-standards-uk-srs-s1-and-uk-srs-s2 accessed 25 May 2026.
[57] Department for Business and Trade, 'Regulation Action Plan Update, and Modernisation of Corporate Reporting' (Statement UIN HCWS973) https://questions-statements.parliament.uk/written-statements/detail/2025-10-21/hcws973 accessed 25 May 2026.
[58] Madre Brava 'New report reveals gaps in major supermarkets' climate performance' (27 January 2026) https://www.madrebrava.org/latest/new-report-reveals-climate-strategy-gaps-between-europes-biggest-supermarkets accessed 25 May 2026.
[59] Changing Markets, 'Shelved Again: Supermarkets' Missing Action on Methane' (April 2026) https://changingmarkets.org/press-releases/shelved-again-supermarkets-missing-action-on-methane/ accessed 25 May 2026.
[60] Changing Markets 'Materially Neglected: Investors under scrutiny as new report highlights role in methane crisis' (February 2026) https://changingmarkets.org/press-releases/materially-neglected-investors-under-scrutiny-as-new-report-highlights-role-in-methane-crisis/ accessed 25 May 2026.
[61] Changing Markets 'Methane Action Tracker' (2026) https://methaneactiontracker.org/retailer-rankings/ accessed 25 May 2026.
[62] Thomas Stoerk *et al.*, 'Global methane action pays for itself at least six times over' (2025) 390 (6772) Science https://www.science.org/doi/10.1126/science.adu7392 accessed 25 May 2026.
[63] IGD, 'UK food system faces £2.6bn climate inaction shock' (1 October 2025) https://www.igd.com/articles/uk-food-system-faces-ps26bn-climate-inaction-shock/71744 accessed 25 May 2026.
[64] Aisling O'Brien, 'EU approves €615.7m scheme to reduce Dutch dairy herds' (14 April 2026) http://agriland.ie/farming-news/eu-approves-e615-7m-scheme-to-reduce-dutch-dairy-herds/ accessed 25 May 2026.
[65] Ministeriet for Grøn Trepart, 'About the agreements on a Green Denmark' (2025) https://mgtp.dk/groent-danmark/english-a-greener-denmark/about-the-agreements-on-a-green-denmark accessed 25 May 2026.

- Estonia's animal health intervention supports higher welfare standards 'without increasing the total number of animals and stocking densities' – this will avoid further increase of methane and nitrate emissions.[66]

- Finally, a cautionary tale – the Aotearoa New Zealand government has taken a 'no additional warming' approach to methane emissions: treating current emission levels as a baseline and focussing on stabilising current emission levels rather than reducing them.[67, 68] We do not consider this to be an approach aligned with 'highest possible ambition'[69] for a country with a significant proportion of its emissions coming from the livestock sector.[70]

- The Irish government has indicated it is considering following suit, prompting strong dissent from the scientific and civil society communities.[71, 72] This 'no additional warming' approach, also referred to as temperature neutrality, is often linked to GWP* (Global Warming Potential*), a measurement of methane emissions that, in factoring in the short-lived nature of the gas, can be applied to downplay the intense warming created in that period. For more information on the application of GWP* by governments, see analysis by Changing Markets Foundation.[73]

It is worth noting that, even though as EU member states these countries are obliged to meet overall greenhouse gas reduction targets under the Effort Sharing Regulation (ESR), the ESR does not set methane-specific targets. Nevertheless, as countries with high agricultural emissions, acting on methane emissions will become increasingly necessary in order to meet broader climate obligations. Even in the absence of methane-specific regulation, reducing methane emissions becomes a political inevitability.

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[66] Republic of Estonia Ministry of the Environment, 'Report pursuant to Article 39 of Regulation (EU) 2018/1999' (Estonia, 2023) https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiyz_W29JOEAxUuVKQEHWAmBRYQFnoECBgQAQ&url=https%3A%2F%2Fkliimaministeerium.ee%2Fmedia%2F9393%2Fdownload&usg=AOvVaw2iHsulWJw8tuT7FyUgPpDR&opi=89978449.

[67] Hon Todd McClay, Hon Simon Watts, Hon Andrew Hoggard, 'Government sets methane targets for 2050' (Beehive.govt.nz, 12 October 2025) https://www.beehive.govt.nz/release/government-sets-methane-targets-2050 accessed 25 May 2026.

[68] The Government of New Zealand relied on the following report to set 2050 methane targets: Methane Review Panel, 'Methane science and target review' (Ministry for the Environment, Wellington, 2024) https://environment.govt.nz/publications/methane-science-and-target-review/ accessed 25 May 2026.

[69] In accordance with the Paris Agreement – please see 'The UK's international climate obligations and associated legal risk' section below.

[70] Ministry for the Environment, 'Agriculture emissions and climate change' (11 April 2023) https://environment.govt.nz/facts-and-science/climate-change/agriculture-emissions-climate-change/ accessed 25 May 2026.

[71] Methane science, 'Scientist statement on misuse of new approaches to methane' (2026) https://methanescience.org/ accessed 25 May 2026.

[72] Institute for Agriculture & Trade Policy, 'Open letter to Irish leaders to reduce methane pollution for just transition in agri-food sector' (4 March 2026) https://www.iatp.org/open-letter-reduce-methane-pollution-just-transition-irish-agri-food accessed 25 May 2026.

[73] Changing Markets, 'The new faces of GWP*: Temperature Neutrality and No Additional Warming' (2025) https://changingmarkets.org/wp-content/uploads/2025/11/The-New-Faces-of-GWP.pdf accessed 25 May 2026.

Change across the agricultural sector is therefore also increasingly inevitable. The UK government should seek to manage this transition sooner, and in dialogue with farmers and rural communities, rather than delay action until more abrupt and disruptive measures will be necessary.[74] Early action can support a more predictable transition for farmers, including through investment, incentives and long-term planning. By contrast, prolonged inaction risks creating the conditions for crisis-driven policymaking, litigation, and more drastic interventions later.

The legitimate concerns about protecting and supporting farmers and agricultural workers during this transition should not therefore be used to shield large livestock agribusinesses from scrutiny or delay climate action further. Delaying inevitable action will not protect farmers, rather it risks exposing them to more sudden change in the future.

The UK's international climate obligations and associated legal risk

The following section sets out the UK's international climate obligations arising from international environmental agreements, human rights, and soft law instruments. It then analyses the associated legal risk of those obligations with regards to agricultural methane emissions.

The UK's international climate obligations

i. The Paris Agreement

The Paris Agreement, adopted by the UK in 2015, creates a binding target for the UK to limit global warming to well below 2°C above pre-industrial levels, and to pursue efforts to limit temperature increase to 1.5°C by 2050. Within the Paris Agreement, the UK must communicate their planned actions to reduce GHG emissions and adapt to the impacts of climate change in their Nationally Determined Contributions (NDCs).[75] A country's NDCs must reflect their 'highest possible ambition'.[76]

UNEP's Global Methane Assessment confirms methane emissions must fall by 40-45% globally by 2030 to meet the 1.5°C global warming target under the Paris Agreement.[77] However, analysis by UNEP and the CCAC has found the current commitments from

[74] Sarah Bridle *et al.* 'Potential Pathways and Solutions to Acute Food System Crisis in the UK' (2026) 18(3) Sustainability 1342 https://www.mdpi.com/2071-1050/18/3/1342 accessed 25 May 2026.
[75] Paris Agreement to the United Nations Framework Convention on Climate Change, 12 December 2015, UN Doc FCCC/CP/2015/L.9/Rev.1, Article 4.2.
[76] *Ibid* Article 4.3.
[77] CCAC and UNEP (n 5) 11.

NDCs and national methane action plans worldwide will only result in an 8% reduction of methane emissions globally compared to 2020 levels by 2030.[78]

For agricultural emissions specifically, following a currently implemented legislation pathway, agricultural methane emissions globally are expected to continue to increase by 17% by 2050 compared to 2020 levels.[79] In fact, even with full and effective implementation of all NDCs and national methane action plans worldwide, methane emissions from agriculture would still increase by 4% by 2030 compared with 2020 levels.[80]

The current pathway is therefore well below what is needed to stay within the 1.5°C target.[81] The UK, as a party to the Paris Agreement, has made a legally binding commitment to limit global warming to well below 2°C above pre-industrial levels, and to pursue efforts to limit temperature increase to 1.5°C. The UK must, with its highest possible ambition, strive to achieve this goal.

ii. Human rights obligations

The adverse impacts of methane emissions engage a number of human rights obligations, particularly in relation to human health and food security.

The European Court of Human Rights has ruled that positive obligations to prevent environmental risks associated with climate change arise from the right to private and family life under Article 8 European Convention of Human Rights (ECHR).[82] This obligation includes, *inter alia,* establishing and applying relevant legislative frameworks for the effective protection of human health and life.[83] Given the evidence of methane emissions' adverse effect of human health, it could be argued that the UK has a positive obligation to address methane emissions through effective policy and legislative frameworks.

Methane emissions are harmful to society in a multitude of ways. For example, methane emissions directly contribute to the formation of tropospheric ozone, a surface ozone and air pollutant associated with reduced crop production, respiratory issues and premature death. The CCAC has estimated that there are 1,430 premature deaths linked to ozone for every million tonnes of methane emitted.[84] Given the evidence of methane emissions' adverse effects on human health, it could be argued that the UK has a positive obligation under Article 8 ECHR to address methane emissions through effective policy and legislative frameworks.

Methane emissions, being responsible for a third of current global warming, also have a significant adverse impact on food security; increasing temperatures, changing precipitation patterns, and the increased frequency and severity of extreme weather events affect the livelihoods and physical health of agricultural workers, as well as the stability and availability of food. Furthermore, methane emissions have also been shown

[78] UNEP (n 14) 17.
[79] UNEP (n 14) 24.
[80] *Ibid*.
[81] CCAC and UNEP (n 5) 11.
[82] *Verein KlimaSeniorinnen Schweiz and Others v Switzerland*, App No 53600/20 (ECHR, 9 April 2024).
[83] *Ibid* 538.
[84] CCAC and UNEP (n 5) 11.

to adversely affect agricultural productivity, with around 145 kilo-tonnes of wheat, soybeans, maize and rice being lost per million tonnes of methane emitted.[85]

The human right to adequate food, as recognised by several United Nations instruments, is 'the right to have regular, permanent and unrestricted access to quantitatively and qualitatively adequate and sufficient food'.[86] The UN Economic and Social Council recognise that this right includes ensuring 'adequacy and sustainability of food availability and access' and that sustainability is intrinsically linked to food security for both present and future generations.[87] States must therefore 'fulfil, facilitate, or pro-actively engage in activities intended to strengthen people's access to and utilization of resources, and means to ensure their livelihood, including food security.'[88]

The threats that methane emissions, and in turn global warming, pose to the human to food are increasingly being recognised in the UK itself. The UK Food Security Report 2024 identified climate change, nature loss and water insecurity as posing 'significant risks' to food security. Further, an official national security assessment published in early 2026 found the UK 'does not have enough land to feed its population and rear livestock', while also highlighting the precarious nature of the ecosystems that support global food production, which are of course relied on by the UK.[89]

Considering the predicted adverse impact of climate change on food security, it could be argued that the UK needs to 'pro-actively engage in activities'[90] to implement measures to reduce climate change and strengthen long-term food resilience. Methane mitigation is an essential measure.

iii. Global Methane Pledge (GMP)

The GMP was launched at COP26 in Glasgow in 2021. It is a non-binding pledge that commits signatories to a collective goal of a 30% reduction in global methane emissions by 2030 compared to 2020 levels. The UK joined the pledge in November 2021 and is a GMP 'champion country'.

However, the GMP target falls 10-15% short of the emissions reductions required to stay on track for the 1.5°C target,[91] and even the GMP 30% reduction target will not be met unless further action is taken, as per UNEP's 2025 Global Methane Status Report.[92] As a reminder: it is expected that the UK's MAP would see only a 22% reduction if all plans were implemented effectively.[93]

Whilst progress has been made, the UK government's involvement in the GMP cannot be considered a justification for a lack of binding national targets for methane reduction. Indeed, the voluntary nature of the pledge arguably enables signatory governments to

[85] CCAC and UNEP (n 5) 11.
[86] Michael Fakhri, Special Rapporteur on the right to food, 'About the right to food and human rights' (2020) https://www.ohchr.org/en/special-procedures/sr-food/about-right-food-and-human-rights accessed 25 May 2026.
[87] United Nations Committee on Economic, Social and Cultural rights, General Comment 12, 'The right to adequate food (art.11) (E/C. 12/1999/5) 12 May 1999 paragraph 7.
[88] *Ibid* paragraph 15.
[89] DEFRA, 'Global biodiversity loss, ecosystem collapse and national security: a national security assessment' (January 2026) https://www.gov.uk/government/publications/nature-security-assessment-on-global-biodiversity-loss-ecosystem-collapse-and-national-security accessed 25 May 2026.
[90] United Nations Committee on Economic, Social and Cultural Rights (n 87), paragraph 15.
[91] CCAC and UNEP (n 5) 9 *'According to scenarios analysed by the Intergovernmental Panel on Climate Change, global methane emissions must be reduced by between 40–45 per cent by 2030 to achieve least cost-pathways that limit global warming to 1.5° C this century.'*
[92] UNEP (n 14) 18.
[93] Green Alliance (n 32).

maintain the food system status quo without being criticised for inaction, despite there being no consequences should the pledge fail to meet its target. The impact of lobbying by the agri-food industry on UN climate ambition should not be underestimated.[94]

iv. Advisory opinions

Advisory opinions are sought in order to clarify legal standards and obligations, meaning analysis included will be relevant to, and persuasive in, the interpretation and drafting of national and international law. In contrast to voluntary pledges such as the GMP described above, the 'soft' law of advisory opinions can have meaningful impact on policy.

Two recent opinions have underlined the inextricable nature of human rights and climate change, as well as the requirement for states to prevent climate harm, through regulation of both private and public conduct.[95, 96] Their impact with regards to the agriculture sector are outlined below.

a. 2025 International Court of Justice advisory opinion on obligations of States in respect to climate change

This advisory opinion confirmed the duty of States to prevent significant harm to the climate system, and the duty to co-operate for the protection of the environment. The duty to prevent significant harm to the environment is a conduct duty, subject to a stringent due diligence standard, and applies to both public and private conduct.

With respect to agriculture, the advisory opinion emphasised the importance of States' NDCs making an 'adequate contribution' to limiting global warming to 1.5°C.[97] The necessity of methane emissions reductions in the agriculture sector as outlined above, coupled with this elevated standard of due diligence, could create space for increased scrutiny of the UK's NDC not including a specific agricultural methane emissions reduction target or plan.

Further, the failure of a State to take appropriate action to mitigate GHG emissions could constitute a 'wrongful act' on behalf of that State, giving rise to State responsibility.[98, 99] This also covers regulation of private actors under the State's jurisdiction, perhaps triggering the need to introduce stricter regulation of methane emissions from large agri-business and retailers.

b. 2025 Inter-American Court of Human Rights Advisory opinion on climate emergency and human rights

This opinion, requested by Chile and Colombia, recognised the right to a healthy climate and the rights of nature itself. The court also emphasised the obligation to prevent

[94] Rachel Sherrington and Nina Lakhani, 'More Than 300 Lobbyists for Industrial Agriculture Attend COP30' (18 November 2025) https://www.desmog.com/2025/11/18/more-than-300-lobbyists-for-industrial-agriculture-are-attending-cop30/ accessed 25 May 2026.
[95] *Obligations of States in Respect to Climate Change* (Advisory Opinion) [2025] ICJ No. 187.
[96] Inter-American Court of Human Rights, 'Advisory Opinion 32 of 2025: Climate Emergency and Human Rights' (2025) https://corteidh.or.cr/tablas/OC-32-2025/index-eng.html# accessed 25 May 2026.
[97] *Obligations of States in Respect to Climate Change* (Advisory Opinion) [2025] (n 95) 242.
[98] *Obligations of States in Respect to Climate Change* (Advisory Opinion) [2025] (n 95) 427.
[99] Caroline Foster 'The 2025 International Court of Justice Advisory Opinion on Obligations of States in respect of Climate Change' (2025) 74(4) International and Comparative Law Quarterly doi:10.1017/S0020589325101292.

irreversible and massive harm to the climate system, and that States must act to adopt all necessary measures to respond to the climate emergency.

The agriculture sector was specifically mentioned in the opinion, with the court highlighting the significant economic losses experienced, and the severity of risk faced by the sector due to climate change.[100] To this effect, the court emphasised that it is necessary for specific agricultural GHG emissions mitigation measures to be in place.[101]

Notwithstanding both opinions being soft law instruments, they can have influence on climate negotiations and litigation.

Legal risk for the UK government

Multiple factors combine to create the framework described above: agricultural exceptionalism within a complex global system with no 'silver bullet' solutions; multiple points of responsibility (government, retailers, food processors, farmers, consumers); corporate influence on policymaking; and progress in methane abatement from non-agricultural sources. Despite this, the absence of a robust regulatory framework for agricultural methane emissions creates increasing legal and litigation risks for the UK Government – a risk which it is no stranger to. High Court judgments in 2022 and 2024 found the 2021 Net Zero Strategy and 2023 Carbon Budget Delivery Plan unlawful, failing to comply with the CCA.[102, 103]

Based on the analysis of the UK agricultural methane emissions framework and the duties on the UK government outlined in this briefing, this may expose the UK to legal risk in the following ways.

Firstly, a failure to implement policies consistent with 1.5°C pathway may expose the UK Government to legal challenges. A climate strategy inconsistent with the Paris Agreement cannot be challenged used the Paris Agreement itself (the UK's dualist legal system means international law cannot be directly applied by national courts) but can be challenged under the CCA (or other act) implementing the UK's Paris Agreement obligations. A 2023 judgement found that the CCA does not require UK government departments other than the Department for Energy Security and Net Zero (DESNZ) to put in place proposals and policies to meet carbon budgets described above,[104] notwithstanding the fact that the plans and proposals in the carbon budgets will span all sectors of the economy and therefore other government departments. This finding, whilst arguably a disappointing view of the collective responsibility being taken by the government to reduce emissions, could at first glance be considered an explanation for the lack of action taken as regards agricultural methane. However, the MAP and Methane Memorandum are DESNZ documents, so cannot be defended on this basis. If the MAP does not deliver the reductions required to meet legally binding carbon budgets, it can be challenged as inadequate.

Despite the lack of duty found in the particular case set out above, the facts of the CCC's findings are no less damning. Their 2025 progress report found over 80% of the required

[100] Inter-American Court of Human Rights (n 96) 95.
[101] *Ibid* 337.
[102] *Friends of the Earth & Ors v Secretary of State for Business Energy and Industrial Strategy* [2022] EWHC 1841.
[103] *Friends of the Earth & Ors v Secretary of State for Energy Security and Net Zero* [2024] EWHC 995.
[104] *R. (on the application of Global Feedback Ltd) v Secretary of State for Environment, Food and Rural Affairs* [2023] EWCA Civ 1549, 93.

emissions savings ahead of 2030 need to be from sectors other than energy supply (which has provided nearly 60% of the UK's emissions reductions so far).[105] Given (i) the lack of credibility in the agriculture and land use plans, as identified above, and (ii) the fact that only 38% of required emissions savings across all sectors to meet 2030 targets have credible plans,[106] the government's ability to meet the 2030 targets can be called into question considering the lack of decisive action on methane, a short-lived greenhouse gas where little reduction has been made so far.

Failure to meet 2030 targets would in turn impact the likelihood of 2050 targets being achieved, which could constitute a breach of the CCA duty to prepare proposals and policies to enable the carbon budgets to be met. Whether legal responsibility lies with the Secretary of State for DEFRA, the Secretary of State for DESNZ, or the latter with input from the former, it is clear action is required.

Secondly, in light of emerging case law from the European Court of Human Rights, inadequate regulation of emissions with known and significant impacts on human health may constitute a breach of positive obligations under Article 8 ECHR. This could be based on either mitigation or adaption measures. Whilst the actions of the Swiss government scrutinised in *KlimaSeniorinnen*[107] (failure to establish a domestic regulatory framework to address climate change and failure to meet past emission reduction targets) differ from the UK (with the CCA framework summarised above in place and the first interim target to be met by 2030, notwithstanding the lack of methane-specific targets) – the principle established is important.

The treatment of standing is also relevant for future cases, given the claim was brought by five affected individuals and an association of which they were members. Only the latter was held to have standing, the Court finding it appropriate given the certain circumstances and the nature of the impact of climate change on human rights, but differentiating this from *actio popularis* (a public interest claim unrelated to a victim).[108]

It has been suggested[109] that this conflicts with the approach taken under the UK Human Rights Act[110] thus far, holding associations not to have standing as they cannot be a 'victim' under the meaning of the Act.[111]

This remains a developing area of law – both in terms of the interpretation of standing discussed above, and of the attribution science required to prove the impact of distinct actors on the climate and the subsequent harm caused.

For more immediate consideration: the European Court of Human Rights is currently considering a challenge to the UK government's national climate adaption plan – if successful, adaptation under the CCA may need significant changes.[112]

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[105] CCC (n 35) 11 and 12.
[106] CCC (n 35) 17.
[107] *Verein KlimaSeniorinnen Schweiz and Others v Switzerland*, App No 53600/20 (ECHR, 9 April 2024).
[108] *Ibid* 498, 500.
[109] Alex Goodman KC, 'Implications for the UK of the New Standing Test for Human Rights and Climate Change Verein KlimaSeniorinnen Schweiz and Others v Switzerland (App. no. 53600/20) and related applications' (26 April 2024) https://www.landmarkchambers.co.uk/news-and-cases/blog/public-and-administrative-law/implications-for-the-uk-of-the-new-standing-test-for-human-rights-and-climate-change-verein-klimaseniorinnen-schweiz-and-others-v-switzerland-app-no-53600-20-and-related-applications accessed 25 May 2026.
[110] Human Rights Act 1998.
[111] For example, in *R (Adath Yisroel Burial Society) v North London Senior Coroner* [2019] QB 251.
[112] Friends of the Earth and Others v. the United Kingdom - application to the European Court of Human Rights [2025] https://www.climatecasechart.com/document/friends-of-the-earth-and-others-v-the-united-kingdom_2c6a accessed 25 May 2026.

Thirdly, a lack of government action can also form the basis of a tort claim. This would be more likely to be adaptation focussed, as it could pinpoint liability as a result of a public authority failure to prepare for, and respond to, the harm caused to the climate by methane emissions (whether this is an authority's role in climate harm as negligence, or breach of a specific statutory duty).[113] The application of tort to address climate issues is a developing area of law (see for example the *Smith v Fonterra* case[114]). Whilst the arguments raised apply to GHG emissions generally, we consider it particularly relevant for methane given the short and intense warming period created and the associated harms.

Finally, legal risk may attach to the public authority role in planning considerations. The use of the UK planning regime to challenge high-emitting projects is well documented, from the principle established in the *Finch* case[115] to its application in challenging approvals of industrial-scale poultry developments, where climate impacts of the developments were omitted.[116] This scrutiny will likely be applied to intensive livestock developments across the UK – meaning local councils must interrogate the environmental impact assessments (EIAs) they receive and reject applications failing to fully consider the climate impact of developments attributable to methane.

Further, and building on our commentary on the CBGDP and MAP above – if the MAP is inadequate for meeting UK carbon budgets, any EIA that concludes the proposed development's methane emissions would not impact the carbon budget may be flawed.

Against a backdrop of expanding climate litigation and evolving human rights jurisprudence, the UK's current approach to agricultural methane emissions will become ever more difficult to defend against legal scrutiny, especially given that independent expert bodies have identified deficiencies in the UK's policies.

The UK's failure to sufficiently regulate agricultural methane emissions will increasingly sit in a clear tension with the international climate obligations, domestic statutory duties, and emerging human rights obligations. Strengthening the regulatory framework for agricultural methane emissions is therefore not only necessary from a climate perspective, but also a prudent step for the UK government in mitigating mounting legal risk.

[113] Lord Sales Keynote Address, 'Climate change and the future of tort law: responding to systemic risk and expanding liability' (9 May 2025) Planning and Environment Bar Association Annual Conference 2025 https://supremecourt.uk/uploads/speech_lord_sales_09052025_c1487ccebd.pdf accessed 25 May 2026.
[114] *Micheal John Smith v Fonterra Co-operative Group Limited* [2024] NZSC 5.
[115] *R (on the application of Finch on behalf of the Weald Action Group & Others) v Surrey County Council (& Others)* [2024] UKSC 20.
[116] Lily O'Mara, 'Second Norfolk megafarm blocked after legal pressure from campaigners' (13 August 2025) https://www.sustainweb.org/news/aug25-norfolk-megafarm-blocked-legal-pressure/ accessed 25 May 2026.

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