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The climate emergency brake

An ambitious plan to cut UK methane emissions

The climate emergency brake: an ambitious plan to cut UK methane emissions

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Summary

“Reducing methane emissions fast is the ‘emergency brake’ that will slow global warming in its tracks.”

Reducing methane emissions fast is the best way the world can avoid dangerous climate tipping points. It is the ‘emergency brake’ that will slow global warming in its tracks.

The UK government has signed up to the Global Methane Pledge, committing to reduce methane emissions by 30 per cent by 2030 (from the 2020 level). Under current plans, at best, the UK will cut them by 19.3 per cent by 2030. But pragmatic and achievable interventions exist that could almost double this, to up to 37 per cent, by the 2030 deadline.

We acknowledge the difficult economic context in which political and funding decisions are being taken. So we describe interventions on methane that are either profitable or low cost, and will have numerous additional benefits, in relation to improved energy security, public health and environmental resilience.

The UK spoke at the 2024 UN climate summit (COP29) about the need to focus on methane to prevent climate breakdown. The secretary of state at the Department for Energy Security and Net Zero (DESNZ), the Rt Hon Ed Miliband MP, said that, if “CO_2 (cuts) are the marathon, methane is the sprint.”

> **With the US stepping back from the international climate stage, the UK must step forward.”**

For the Global Methane Pledge to succeed, all its signatories must come forward with action plans showing how they will rapidly cut their methane emissions this decade, setting specific reduction targets. With the US stepping back from the international climate stage, the UK must step forward.

The actions outlined here could form the basis for a National Methane Action Plan the UK can champion as an example to the world.

Introduction

> “Methane has long been overlooked in discussions about climate action.”

The world is 0.5 degrees warmer today because of methane emitted by human activity. Although cutting CO_2 emissions in the medium and long term is essential to avoid the worst effects of climate change, reducing methane soon is the most powerful means the world has to slow down global warming and avoid dangerous climate tipping points.[1]

Methane is a global warming gas over 80 times more powerful than carbon dioxide in the short term. But, unlike CO_2, it does not linger in the atmosphere, breaking down within about 12 years. Reducing methane emissions now buys humanity more time to bring down all greenhouse gas emissions and avoid the worst effects of climate change. For this reason, the world cannot wait to master carbon budgets before choosing to tackle methane. Global methane emissions must fall in this decade, or the opportunity to pull this important ‘emergency brake’ will be lost.

Methane has long been overlooked in discussions about climate action. It has been grouped with other gases, and measured as a ‘carbon dioxide equivalent’. The Paris Agreement and the UK’s Climate Change Act have facilitated this, masking the urgent need to focus on methane reduction in the short term and the opportunity doing so presents.

A specific reduction target is needed. Existing UK carbon budgets and net zero strategies do not focus on the Global Methane Pledge which the UK signed up to in 2021 at the COP26 climate summit in Glasgow. The pledge aims to reduce global methane emissions by 30 per cent (from the 2020 level) by 2030.

> “Co-ordinated global measures on methane could avoid 0.2°C of warming by 2050.”

Several countries have put forward action plans with quantified targets, but the average reduction so far is below 30 per cent, which will make meeting the global target a challenge. The average cut pledged is 22 per cent. As the newly elected co-chair of the UN’s Climate and Clean Air Coalition (CCAC), the UK should do more and lead by example, encouraging other countries to raise their ambitions.

Meeting the target could keep global temperatures below 2°C, which increases the likelihood that more dangerous climate change impacts can be avoided. Effective, co-ordinated global measures on methane could avoid 0.2°C of warming by 2050.[2]

These apparently small shifts are important, as every tenth of a degree rise in warming significantly increases the chances of triggering climate tipping points.[3] Five major tipping points are already at risk of being crossed, including melting Antarctic ice sheets, savannah degradation and Amazon forest dieback.[4] These events could trigger worse climate-induced extreme weather which is already harming communities, especially in the global South.

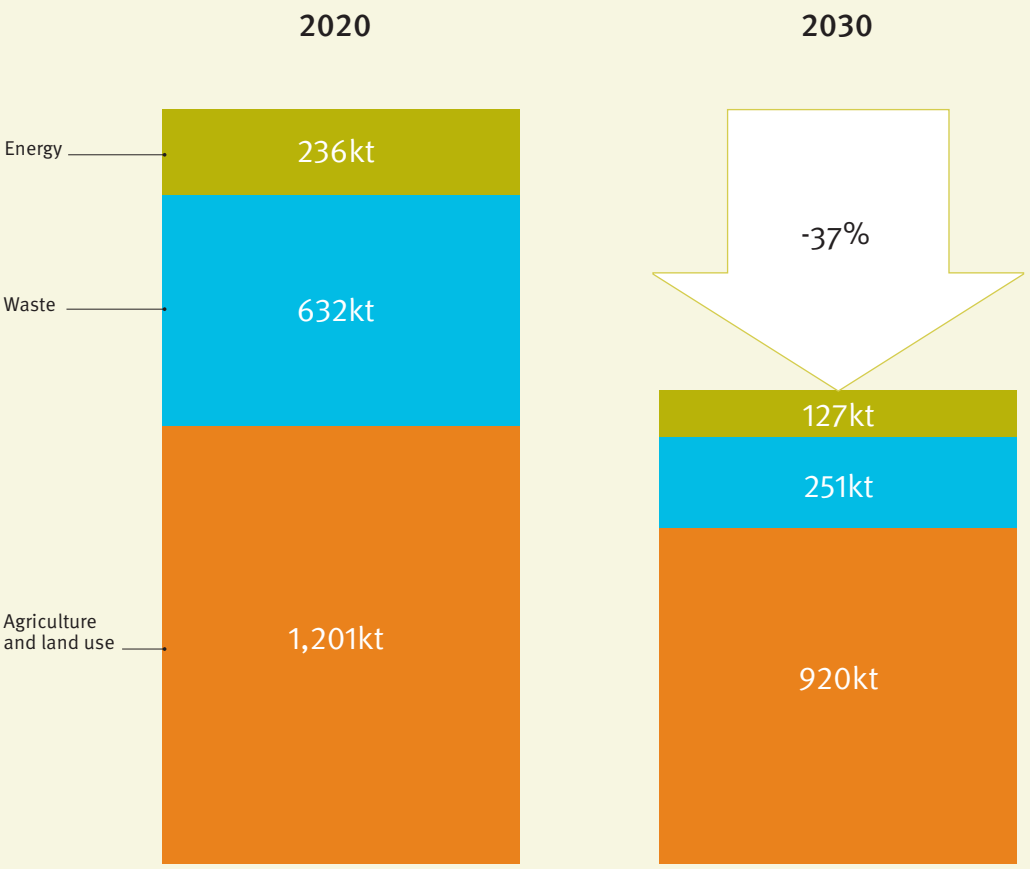
The UK led in the past on methane reduction, but progress has stalled in recent years. Unambitious plans were published by the previous government as part of its Carbon Budget Delivery Plan in 2023. If all the planned policies and actions were fully implemented, the UK might expect to reduce its methane emissions, at most, by 19 per cent by 2030. But this is a best case scenario as the Department for Environment, Food and Rural Affairs (Defra) believes some of the policies are unlikely to be delivered. The government is expected to update the Carbon Budget Delivery plan soon.

The UK cannot afford to ignore methane any longer.

We describe here additional action and policies that would create a world leading National Methane Action Plan.

The outcome of a National Methane Action Plan

Methane emissions, before and after our proposed interventions



A chance for UK leadership

> **“The UK could take a lead on other methane lowering technologies.”**

Between 1990 and 2020, the UK’s methane emissions fell by 62 per cent. It led OECD countries for cutting emissions during this time. However, this progress has stalled.

The UK was recently elected to join Brazil as co-chair of UNEP’s Climate and Clean Air Coalition, which oversees the Global Methane Pledge. Brazil has included action on methane in its Fuel of the Future Act and is finalising a National Strategy for Organic Waste Management.[5]

The COP30 climate conference in Brazil, taking place in November 2025, is a prime opportunity for the UK to demonstrate leadership and its expertise on methane once again. It has already set the example on landfill gas capture and coal phase-out, and could support countries in the global South in their efforts. But the UK could also take a lead on other methane lowering technologies, for instance methane-suppressing vaccines for livestock and the selective breeding of farm animals, as well as the development of new alternative protein foods.

Another way to make progress is by aligning energy import standards with the EU’s new methane regulation. As one of the world’s largest gas importers, introducing a methane import standard would limit emissions per unit of oil and gas imported.[6] The EU regulation requires companies to provide verifiable data on their methane emissions across supply chains and stricter limits will be in force by 2030. Suppliers are already adapting to these standards, paving the way for the UK to take a similar approach.

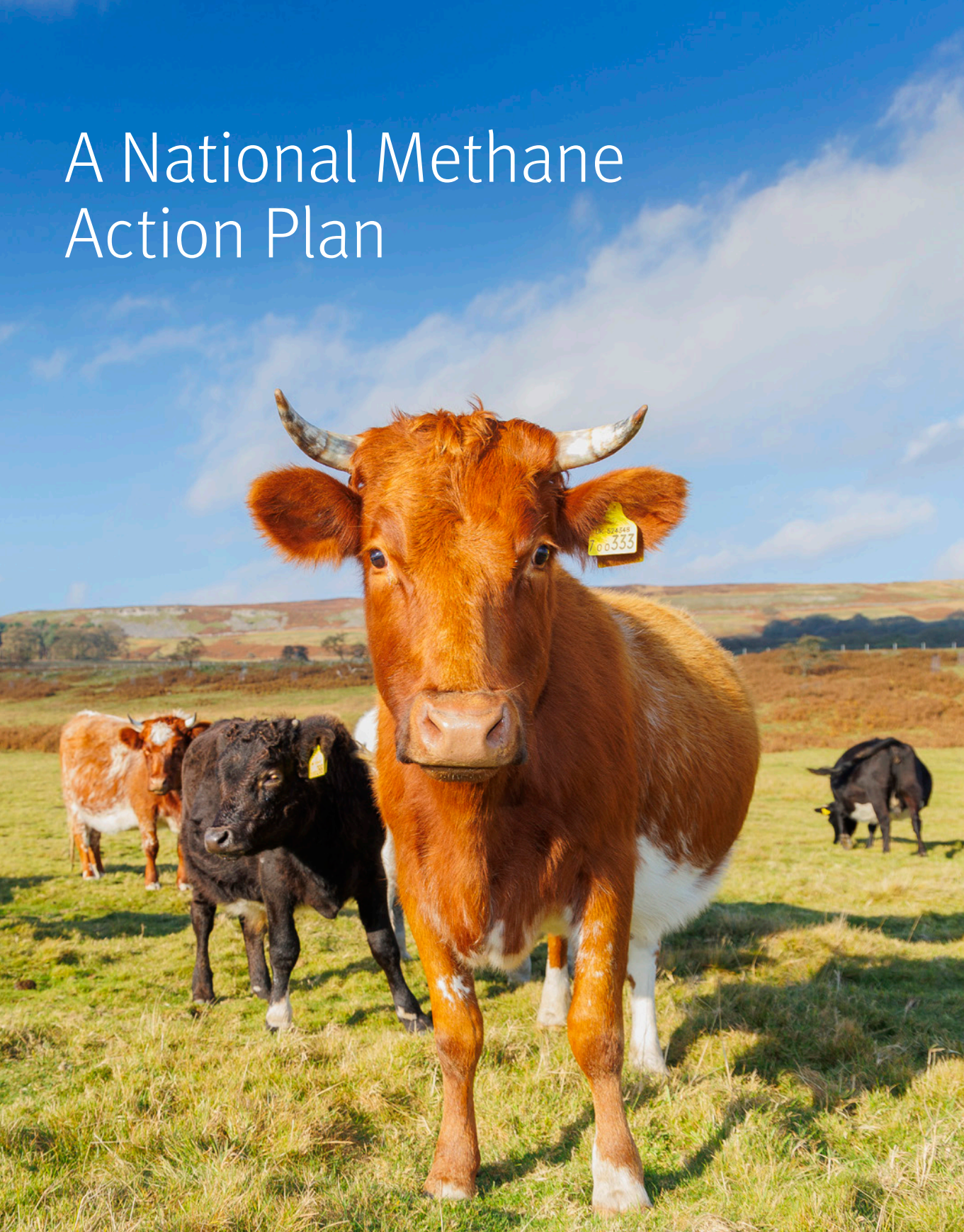
Under 60 per cent of the world's methane emissions come from the signatories to the Global Methane Pledge. But plans published by some of them, including the UK, lack sufficient ambition to meet the target, putting the aspiration to achieve a global 30 per cent reduction in jeopardy.

> "The UK should should demonstrate that rapid action is possible."

The pledge is a collective commitment to a shared goal. It cannot be assumed that if one country under delivers others will over deliver to meet the target. The UK should not wait for others to act. Instead, it should demonstrate that rapid action is possible and necessary to keep global climate goals within reach.

The interventions we outline here, taken together, would constitute a plan to cut UK methane emissions by 37 per cent, making it one of the most ambitious methane reduction plans in the world.

A National Methane Action Plan

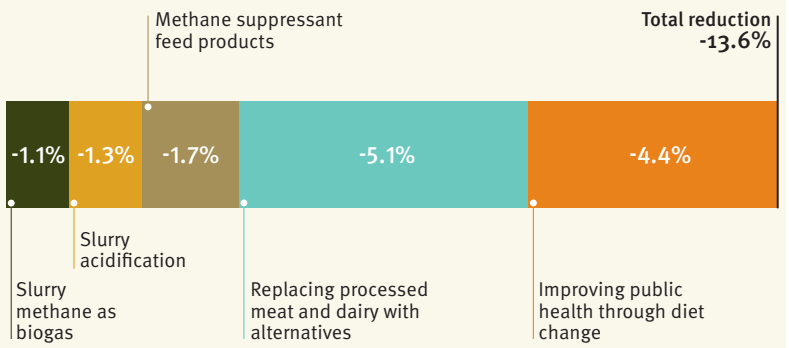


Agriculture

> **“Farming is responsible for 55 per cent of the UK’s methane emissions.”**

Farming is responsible for 55 per cent of the UK’s methane emissions.[7] The country’s nine million cattle are the UK’s biggest source.[8] Most emissions from cows are ‘enteric’, coming from their digestive systems, but some come from stored manure, especially liquid manure in slurry tanks. There are several ways to reduce this impact, but the most effective would be to reduce the size of the national herd.

Existing and suggested interventions and their impact on emissions



Methane suppressant animal feed

Methane suppressants can be mixed into feed for cows, and potentially also for sheep, so the animals produce less methane during digestion. As the additives are digested, they are not passed into animal products and so are safe for consumers, animals and the environment.[9]

The leading product is Bovaer, the brand name of the additive 3-nitrooxypropanol (3-NOP). This was the first highly effective additive to be approved for use in Britain by the Food Standards Agency. It is likely other brands will enter the market in the near future.

> “The Food Standards Agency should be equipped to offer a rapid fact checking service.”

The additive is less effective for grazing animals as it has to be mixed with every mouthful to have a continuous effect and so its best application currently is to feed it to dairy cows indoors at least once a day. Work is underway to develop longer lasting products to overcome this problem.

Public backlash in 2024 against Bovaer’s additive used on Arla dairy farms, despite approval by the Food Standards Agency and support from the National Farmers’ Union, illustrates the potential for misinformation and the need to anticipate and counter it when planning interventions. The Food Standards Agency should be equipped to offer a rapid fact checking service to the media when misinformation arises, and address any public distrust.

Defra is exploring mandating methane suppressants in cattle feed. It would be logical to place this mandate on feed manufacturers rather than on farmers. In the short term, farmers could be supported to use them by regulating retailers or dairy processors to pay farmers fairly to help cover the cost. Alternatively, the cost could be covered through payments under the Environmental Land Management schemes (ELMs).

Impact

Over 35kt of methane could be saved if a suppressant was used on 40 per cent of UK dairy farms, reducing total UK methane emissions by 1.7 per cent.

Cost

It could be government funded through ELMs, or paid for by retailers. The cost is likely to be no more than half a penny per pint of milk.[10]

Benefits

This measure reduces emissions with little or no impact on consumers.

> “Better slurry management could reduce air and river pollution.”

Slurry acidification

Adding chemicals to slurry can reduce its methane and ammonia emissions. Both contribute to local air pollution by forming ground level ozone and particulate matter which can cause respiratory problems.

Other countries are ahead of the UK. In Denmark, acidification is used to treat 20 per cent of its slurry.[11] Danish studies suggest even small amounts of sulphuric acid can cut the methane emissions from slurry by half, but reductions of up to 90 per cent have been demonstrated.[12,13]

The main costs are in improving slurry storage so it is in a covered area (already advised to achieve air pollution targets) and the cost of the acid, which is around £40 per animal per year.[14] Capital support for slurry acidification has been offered in the past as part of the slurry infrastructure grants, and running costs could be supported through ELMs.

Impact

This could reduce methane from slurry stores by 90 per cent, a 1.3 per cent reduction in total UK methane emissions.[15,16]

Cost

The government should assist farmers, at around £40 per animal per year, to install specialised tanks to store the sulphuric acid.

Benefits

In addition to cutting methane emissions, better slurry management could reduce air and river pollution and increase its potential for use as a fertiliser.[17] Paying to avoid water pollution from slurry at source, as opposed to paying to treat water, can be 65 times more cost effective.[18]

Slurry methane for energy

Novel technology can capture the methane emitted from slurry storage and convert it into biogas, without the need for an anaerobic digestion plant.[19] Being trialled in Cornwall by the company Bennamann, it works by covering (lagoon style) slurry storage systems and trapping the fugitive methane.[20]

> “The biogas produced will provide an additional revenue stream for farms.”

Installation of the capture and processing equipment is costly, but it can create a reliable revenue stream and is a way to decarbonise energy use. Direct capture from slurry should be supported through the slurry infrastructure grant, though care should be taken in the pricing to avoid incentivising more intensive animal agriculture and creating a ‘biomethane rush’.

Impact

Assuming an effective methane capture rate of 80 per cent, this measure can reduce agricultural methane by 1.9 per cent and total UK emissions by 1.1 per cent.

Cost

High upfront capital costs could be covered by the government, through the the slurry infrastructure grant; or the government could require retailers to introduce a price incentive to encourage farmers to capture methane on site. The methane is processed into biogas and can be used on farms for heating, powering tractors and machinery or, as demonstrated by the Cornish project, sold on as biogas at a rate of 10p per kg of methane.[21]

Benefits

This avoids the need for anaerobic digestion, where methane leaks can be under reported.[22] It makes productive use of unavoidable agricultural waste and can be a new source of farm income.

Selective breeding of low methane cows

Selective breeding can reduce enteric methane emissions by altering the gut microbiome of cattle gradually, generation by generation, improving digestive efficiency without affecting meat or dairy production. It does not involve gene editing. While time intensive, it could be a long term solution alongside methane suppressants, and applied to all types of cattle, not just dairy cows.

> “In the long run, this would complement broader efforts to breed more efficient and productive farm animals.”

Support for selective breeding solutions could include financial incentives for breeding service providers. Alternatively, farmers and breeders could be encouraged to breed and buy lower methane livestock by retailers, through a price incentive on the meat and dairy products purchased. In the long run, this would reduce the need for methane suppressants and complement broader efforts to breed more efficient and productive farm animals. The 2023 Carbon Budget Delivery Plan already anticipated some emissions reductions via selective breeding.[23]

Impact

Although this measure is unlikely to contribute to meeting the Global Methane Pledge by 2030, evidence suggests there is potential to reduce approximately 24 per cent of enteric emissions from livestock by selective breeding by 2050.[24,25] In future, this measure could replace shorter term solutions such as methane suppressant feed products, at lower cost.

Cost

Support for research and development now could avoid the need to buy feed additives in future

Benefits

Selective breeding for methane reduction is likely to expand in the UK and be more cost effective for farms, with testing costing around £2-3 per cow.[26]

Methane suppressing vaccines

Vaccines are routinely used in the international livestock trade to protect cattle against disease. Vaccines could also be used to increase methane efficiency (so cows emit less enteric methane).

The technology is still in development, and no vaccine is currently available. However, research is underway to develop vaccines with trials ongoing.[27] Most farmers vaccinate livestock and this may be one of the few methods to reduce the methane emissions from grazing animals.[28]

Funding research into vaccination could position the UK as a pioneer in this high impact, low intervention solution.

“Funding research into vaccination could position the UK as a pioneer in this high impact, low intervention solution.”

Impact

The eventual impact is unknown as this solution is still in development. Initial experiments show it could be highly effective.

Cost

Government investment in research and development is recommended. The UK’s Pirbright Institute has already received private financial support of just over £7.5 million for research. Defra could provide the further £10 million estimated to be required to support further research and development of this technology at sufficient pace, through the Farming Innovation Programme.

Benefits

This is an easily administered intervention without changing farming practices.

Alternative proteins

Green Alliance has previously investigated and reported on the role alternative proteins could play in UK food security.[29] Alternative proteins can offer a similar taste and texture to meat and dairy products but require far less land to produce.

These products could be substituted for meat and dairy products in many processed foods without affecting consumers.

Barriers to the growth of the alternative protein market in the UK include concerns from farmers that they threaten traditional farming practices and from consumers about the health impacts of processed foods.

> “Some farms could diversify into growing inputs for the alternative protein market.”

Some farms could diversify into growing inputs for the alternative protein market, including using crops like wheat to provide amino acids.[30] As we have highlighted, this is a potential growth industry for the UK.

The Food Standards Agency should be adequately resourced to ensure consumer confidence in new, healthy alternative protein products and to maintain compatibility with EU food standards to avoid trade obstructions.[31]

Impact

If consumers replaced 17 per cent of processed meat and dairy with alternative proteins, and livestock numbers fell accordingly, agricultural methane emissions would be reduced by nine per cent and the UK’s overall emissions by five per cent.[32]

Cost

Significant government investment is recommended to enable international competitive advantage in this market. Our previous work suggested an investment of £250 million would be needed for research and development in regional hubs, including Teesside and the ‘golden triangle’ of Oxford, Cambridge and London.[33]

> “Using more alternative proteins could help to control the price of processed foods.”

Benefits

Using more alternative proteins could help to control the price of processed foods and, with more research backed by government, healthier ingredients than those they replace could be developed.[34] Investment should stimulate job creation, with projections of up to 25,000 new jobs possible in this industry by 2035, including roles in research, manufacturing and farming. Alternative protein development would increase UK food security and give the UK a strong foothold in the industry, expected to be worth £226 billion by 2035.[35]

Reduce meat and dairy consumption

Moving the national diet closer to Public Health England’s *The eatwell guide* would improve the health of the population while cutting methane emissions.[36] Overconsumption, including of calorie-dense protein from meat and animal products, is a source of significant health problems.[37] Trends show that people in the UK are already eating less meat.[38] If this trend was encouraged, to reach an average of ten per cent less across the population, equivalent to reducing consumption by less than one beef burger a week, there would be a notable impact on methane emissions and health.[39] Policies should be introduced that support farmers and ensure there is no adverse impact on their livelihoods. This includes the implementation of a Land Use Framework, and support under updated Environmental Land Management schemes.

The most successful diet related public health policies, such as the sugar tax on drinks, are relatively small interventions which have had a major positive impact on public health.[40] Rather than actively discouraging the consumption of animal products, the reduction could be achieved by focusing on the health benefits of eating more plant-based foods instead.[41]

“Following *The eatwell guide* could save the NHS £6.5 billion annually.”

Impact

Assuming the UK’s demand for meat and dairy products continues to dictate the domestic production level, rather than any surplus production being exported, shifting UK diets could significantly reduce methane emissions. If meat and dairy consumption declined by ten per cent in line with production, agricultural methane emissions could fall by 7.5 per cent, cutting the UK’s total emissions by 4.4 per cent.

Cost

Significant cost savings are possible for both consumers and the health service. Helping people to eat healthier diets would prevent weight related conditions. It is projected that between 2020 and 2050, without more action, these will take up eight per cent of the NHS budget.[42]

Benefits

Following *The eatwell guide* could save the NHS £6.5 billion annually.[43] This has other economic benefits, eg increasing productivity through lower absenteeism. Expanding horticulture in the UK to help meet increased demand could boost the economy by £2.3 billion and increase farm profits by three per cent.[44]

Energy

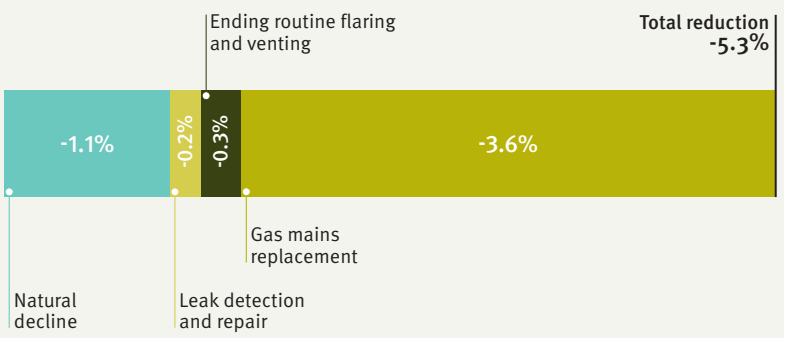
> “Capturing and selling methane can improve UK energy security and generate revenue.”

In the past, the energy sector has been responsible for significant cuts to UK methane emissions, largely due to coal mines closing down. However, this progress has plateaued in recent years. Most methane emissions arising from this sector now come from the oil and gas industry.

Capturing and selling methane, rather than letting it leak into the atmosphere, can improve UK energy security and generate revenue. But this source of income is less financially attractive to oil and gas businesses than new drilling.

A small number of sites and types of equipment are responsible for a disproportionately large amount of methane emissions.[45] The North Sea Transition Authority predicts oil and gas production will decline by 62 per cent between 2020 and 2030, as North Sea basin oilfields become exhausted, reducing methane emissions over time. So, even without further action, a reduction of around ten per cent on today’s UK energy sector emissions is expected, equating to one per cent of overall UK emissions. This trajectory is built into our estimates for measures in the energy sector. It continues to be the case that the best way for the energy sector to reduce methane is to extract and use less oil and gas.

Existing and suggested interventions and their impact on emissions



Leak detection and repair

Reducing methane leakage from oil and gas facilities could be done through regular thermal imaging surveys to detect fugitive emissions, the sources of which can be repaired. This should be mandated in the UK, as it is in the EU under a suite of tighter regulations on the industry.[46]

> “Leak detection and repair improves air quality around extraction sites.”

With better enforcement, new leaks are likely to be found. Greater transparency could have the effect of raising the amount of methane emissions, as they are likely to be underestimated at present. The need for better monitoring should not be a barrier to cutting methane now and should be supported through the UK’s emissions trading scheme.

Impact

Stopping leaks in the oil and gas industry could reduce total UK methane emissions from the energy sector by around two per cent, equating to 0.2 per cent of total UK methane emissions. This impact may well be greater than current data shows, as leaks are likely to be underreported.[47]

Cost

Mandating regular leak detection and repair is a cost to oil and gas operators but this is likely to be recouped by reducing lost gas which they can then sell.

Benefits

Leak detection and repair improves air quality around extraction sites, prevents wasted gas, supports jobs in leak detection and repair, and reduces the risk of accidents.

End routine venting and flaring

Venting and flaring are controlled processes to release or burn off excess gases, mostly methane, on oil and gas installations. Sometimes the gas must be flared or vented for safety reasons, but modern equipment and practices, such as vapour recovery units, can eliminate the need to do this routinely.[48]

> “Avoiding leaked methane is a source of higher revenue rather than a cost.”

The government has set an expectation that routine venting and flaring must end by 2030, and the oil and gas industry is already preparing for this. However, it is a voluntary ban and relies on the North Sea Transition Authority working with industry to ensure it happens.[49] Most emissions from this source in the UK are concentrated around the same worst offenders.[50] In Norway, venting and flaring has been banned since 1971.[51]

The previous Conservative government expressed fears the ‘ban’ would force some platforms to close early and increase dependence on imported gas from other countries with higher emissions. But this fear is unfounded. In 2023, we found that ensuring companies stop wasting gas could bring 2.5 times more gas to market than might be lost by the early closure of the most polluting sites.[52] In line with calls from the Climate Change Committee, the Environmental Audit Committee and the government’s Mission Zero Review, the government should bring forward the date of the ban to 2027.

Impact

Ending routine venting and flaring could avoid two per cent of energy sector methane emissions, equating to 0.3 per cent of overall UK emissions.

Cost

Avoiding leaked methane is a source of higher revenue rather than a cost.

Benefits

Stopping venting and flaring improves air quality around extraction sites, prevents wasted gas and is cost effective for industry, with captured gas providing another source of revenue and secure domestic gas supply.

Gas mains replacement

Replacing older, leaky gas pipes with new plastic pipes is already underway. Replacements are due to be completed in 2032 but should be accelerated. Ofgem has a goal to replace 15,500km of iron mains pipes with less leaky plastic ones between 2021 and 2026.[53]

> “Mains replacement could reduce the energy sector’s emissions by 35 per cent.”

Impact

Gas mains replacement has a major impact on methane emissions from the energy sector. Mains replacement could reduce the energy sector’s emissions by 35 per cent, equating to four per cent of overall UK emissions.

Cost

This is already receiving central government funding, which should be increased to accelerate the replacement programme.

Benefits

This has the benefit of reducing the risk of dangerous explosions, as well as cutting waste from leaks and improving air quality by avoiding escaped gas, especially in cities.

Waste

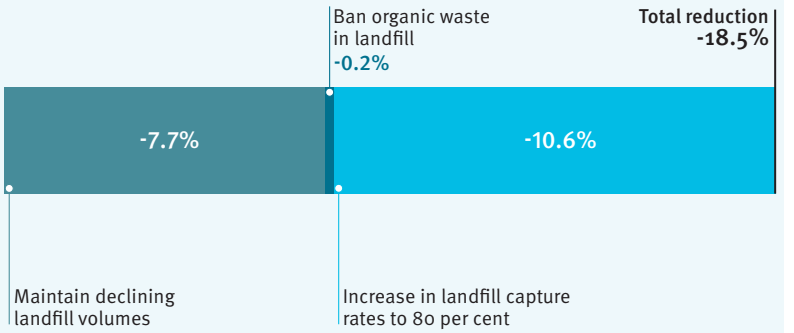
> “Landfill sites are still the biggest source of methane emissions from the waste sector.”

The waste sector has had considerable success at reducing its methane emissions over the past 35 years. Through the landfill tax and support for landfill gas capture, methane emissions from waste fell by around 80 per cent between 1990 and 2023.[54] UK waste strategy has encouraged more diversion from landfill sites to incinerators, anaerobic digesters and composting facilities.[55]

But landfill sites are still the biggest source of methane emissions from the waste sector, and a cause of harmful air pollution.[56] Landfill tax, introduced in 1996, has led to continued decline in the volume of waste sent to landfill and a corresponding eventual reduction in methane emissions from waste.

This trend will result in ongoing methane reduction and requires no new action. Continuing existing practices will result in a reduction of waste sector methane emissions of 25 per cent, equating to eight per cent of overall UK emissions.

Existing and suggested interventions and their impact on emissions



Ban organic waste in landfill

Landfill methane comes from organic waste breaking down and was the source of 80 per cent of the waste sector's methane emissions in 2022.[57]

Defra ran a consultation in 2023 on the near elimination of organic waste entering landfill sites, but the government is yet to respond or clarify the next steps.[58] Swift action is needed to implement this policy. Considering the time lag between ending the flow of organic waste to landfill and the corresponding impact on methane emissions, the sooner this is implemented, the better.

> "The policy to nearly eliminate organic waste in landfill by 2028 should be brought forward."

The government should consider bringing this forward, to earlier than 2028. Scotland delayed the start of a similar ban until the start of 2026, from an original date of 2021. At least, the policy should not be pushed beyond 2028.

Impact

The policy to nearly eliminate organic waste in landfill sites by 2028, as the government is currently planning, will only avoid one per cent of the UK waste sector's emissions by 2030, equating to 0.2 per cent of overall UK emissions. Beyond 2030, this measure will have greater impact but, under current plans, it will not drive methane reduction in this decade because there is a lag in the production of methane from landfill sites after waste is deposited. To increase the impact of this intervention by 2030, the ban should be brought forward.

Cost

The cost of separately collecting biodegradable waste is likely to fall on local authorities. This policy is already working towards implementation and could be funded, in part, by the extended producer responsibility schemes being introduced for carpets, textiles and clothing, bulky waste and mattresses, all of which can contain biodegradable materials. Additional costs are associated with the new infrastructure needed, such as composting sites and anaerobic digestion plants. It will also reduce landfill tax revenue.

Benefits

This will improve air quality around landfill sites, protecting local communities, and save land by extending the lifespan of landfill sites. The compost produced helps to improve soil health.

> “Increasing landfill gas capture rates to 80 per cent would reduce waste sector emissions by a further 35 per cent.”

Improving landfill gas capture

Biodegradable waste in landfill produces methane and CO_2, also known as ‘landfill gas’, which most operators currently capture and burn to generate renewable electricity. The impending end of the Renewables Obligation subsidy in 2027 could lead to methane emissions from landfill rising once again as operators lose the financial incentive to continue the practice. To prevent this cliff edge, landfill gas electricity generators could be allowed to bid into renewables contracts for difference (CfD) schemes instead, reducing investment risks by guaranteeing them a market for the gas. This could be paired with a firm target to increase overall landfill gas capture rates to 80 per cent by 2030 (it is estimated that 58 per cent is currently captured).[59] While CfDs were not originally designed for this, extending them to include methane is a practical way to increase efforts to capture it.

Impact

Increasing landfill gas capture rates to 80 per cent would reduce waste sector emissions by a further 35 per cent and total UK methane emissions by 10.6 per cent.

Cost

Costs would be associated with designing and offering a CfD for landfill gas electricity generation. At present, clean energy policies continue to be funded through levies on consumer electricity bills. Instead, these levies should be funded from government spending, which is more progressive than via consumer bills. Regardless, overall cost to consumers will fall as renewables subsidies for other technologies decline from 2027.

Benefits

Continuing to support the use of landfill gas to produce electricity, as a reliable domestic, low carbon energy source, will avoid the loss of jobs and businesses associated with it. It would also reduce the need to rely on imported fossil fuels by retaining a source of baseload renewable electricity generation. Landfill gas electricity generation is cheaper than other forms of baseload power, such as biomass.

Three steps to action

> “There is an opportunity now to step up action ahead of the COP30 climate summit.”

Accelerating efforts to address methane emissions is a vital way for the UK to meet its climate commitments and demonstrate global leadership. Unlike other measures, cutting methane has an immediate global cooling impact. It is the world’s best ‘emergency brake’ on global warming. But it has to happen in the near future to be effective.

While UK progress has stalled in recent years, there is an opportunity now to step up action, ahead of the COP30 climate summit, with policies focused on the agriculture, energy and waste sectors.

Methane’s shortlived but intense global warming impact means efforts to reduce it should not be grouped on the same timescale as other climate measures. A dedicated and visible methane target, disaggregated from carbon dioxide and other greenhouse gases, would allow for more precise monitoring, clearer accountability and a more effective strategy.

Implementing the relatively low cost, immediately available actions we have described will have wider benefits for the UK, notably improving air quality and financial gains from using an otherwise wasted resource.

We recommend the following initial steps to unlock this potential:

- Collaboration between Defra and DESNZ to produce a quantified National Methane Action Plan, published by the COP30 climate summit, designed to meet the 30 per cent by 2030 Global Methane Pledge commitment.
- Adoption of sector specific UK reduction targets, in line with the pledge’s ambition.
- Establishment of a cross departmental task force to ensure government accountability on cutting methane emissions.

Endnotes

1 Z Stiniaszek et al, March 2022, 'The role of future anthropogenic methane emissions in air quality and climate', *NPJ climate and atmospheric science,* vol 5, 21

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