

## Written evidence from IUCN UK Peatland Programme (MET0007)

[IUCN UK Peatland Programme \(iucn-uk-peatlandprogramme.org\)](https://iucn-uk-peatlandprogramme.org)

**The IUCN UK Peatland Programme exists to promote peatland restoration in the UK and advocates the multiple benefits of peatlands through partnerships, strong science, sound policy and effective practice.**

**Our long-term vision is that peatlands in the UK function to their full potential and that there is no further loss of peatland ecosystems, providing cost effective solutions for climate change, water and biodiversity. Investment in peatland restoration is needed now, securing the benefits they provide and avoiding the costly consequences of their deterioration.**

### **Inquiry on methane: call for evidence**

We wish to submit a response to the following questions:

#### **12) What progress has the UK made on reducing methane emissions and where is there room for improvement?**

The UK has made significant progress in tackling methane emissions with an ~60% reduction since 1990, however there is still scope to further reduce these. As GHGs are often emitted concurrently, tackling one brings a corresponding reduction in the others, such as nitrous oxide. A holistic approach to tackling emissions reductions could also have a beneficial effect on other areas such as biodiversity – see detail below - as habitat conservation and restoration are important pathways to reduce GHG emission.

The report which was published in January 2024 by the Office of Environmental Protection highlighted that the UK is not on track to meet significant environmental targets.<sup>1</sup> Addressing the areas where there has been limited progress or we are 'largely off track' would support the reduction in methane emissions – particularly the chapters 2 and 3 (*thriving plants and wildlife* and *clean air* respectively). Resolving the issues highlighted within the report – whilst not directly referencing methane – would have a net benefit on methane reduction. Piecemeal approaches to tackling areas are less likely to achieve successful outcomes as natural processes are closely intertwined, taking an integrated approach to environmental challenges will likely not only be more successful but also more cost-effective.

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<sup>1</sup> Government remains largely off track to meet its environmental ambitions, finds OEP in annual progress report | Office for Environmental Protection (theoep.org.uk)

### **13) Which sectors are most promising for achieving further methane emissions reductions? And which are likely to be at least relative cost?**

Agriculture remains by far the largest single source of methane emissions in the UK – accounting for almost 50% of the total (approx. 27 MtCO<sub>2</sub>e per annum); additionally, it is responsible for ~70% of the nitrous oxide emissions. Both ruminant livestock and the spreading of manure are the most significant proportion of these methane emissions. Beef and sheep pasture accounts for the single largest proportion of land usage in the UK.<sup>2</sup> However, the mapping provided by Carbon Brief<sup>2</sup> does not account for additional free-ranging stock (particularly sheep) which extensively use marginal upland sites including peatlands across the UK. Also not accounted for in the area farmed for livestock is the amount of land used to produce feed – in a 2022 report the WWF estimated that 40% of productive arable land (~ 2 million ha) is used to grow wheat and barley for animals.<sup>3</sup>

Some of the most productive land in the UK is in the fens which are dominated by peat soils. However, it is also a GHG emissions hotspot. Whilst near-natural fens in the UK act as the strongest sink of CO<sub>2</sub> (-5.06 t CO<sub>2</sub> ha<sup>-1</sup> yr<sup>-1</sup>) and an overall GHG sink (-0.36 t CO<sub>2</sub> ha<sup>-1</sup> yr<sup>-1</sup>), intensive grasslands and croplands on peat soils act as significant overall sources of GHGs (22 and 37.17 t CO<sub>2</sub> ha<sup>-1</sup> yr<sup>-1</sup>).<sup>4</sup> Large amounts of money have been historically dedicated and are still dedicated to draining the UK's fen peatlands in order to keep them farmable. As a result, much of the biodiversity of the region has been lost. A reduction in livestock headage – through shifts in subsidy towards nature friendly farming – would reduce the need for feed required and decrease pressure on these areas. A move towards a more circular system would reduce methane emissions, waste, and alleviate pressure on habitats.

There are approximately 21.2 million sheep and 9.2 million cattle across the four UK nations (correct December 2023 – per ONS) however, particularly in marginal upland areas livestock farming is supported by significant subsidies. Upland areas contain significant areas of blanket peatlands and poorly managed these are significant emitters of methane - poaching and exposure of the surface by heavy livestock usage can increase these losses.

Increasing subsidies for environmentally sensitive farming methods – particularly on habitats such as peatlands which are significant sources of methane and other GHGs when degraded – would be a straightforward way to decrease emissions whilst also ensuring that farmers are supported with a viable alternative income stream. There could also be improvements made to reduce emissions from livestock populations through dietary management and better health and nutrition management, which could reduce GHG emissions by 15 - 30% per head (sheep).<sup>5</sup>

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<sup>2</sup> [Q&A: Will England's National Food Strategy help tackle climate change? - Carbon Brief](#)

<sup>3</sup> [future\\_of\\_feed\\_full\\_report.pdf \(wwf.org.uk\)](#)

<sup>4</sup> [Peatland Code update report v7 AR5 \(nerc.ac.uk\)](#)

<sup>5</sup> [Greenhouse gas inventory: estimated sheep emissions and their mitigation - gov.scot \(www.gov.scot\)](#)

#### **14) Are there sources that could be mitigated quickly and easily in the short term, and which would take longer or be more complex?**

Degraded peatlands are sources of methane, with extracted peatlands in the UK emitting an equivalent of 1.9 t CO<sub>2</sub>e ha<sup>-1</sup> yr<sup>-1</sup>, intensive grasslands on peat soils 2.4 t CO<sub>2</sub> ha<sup>-1</sup> yr<sup>-1</sup> and croplands on peat soils 1.68 t CO<sub>2</sub>e ha<sup>-1</sup> yr<sup>-1</sup>.<sup>6</sup>The overall GHG emissions from the above-mentioned environments range from 15.18 to 37.17 t CO<sub>2</sub>e ha<sup>-1</sup> yr<sup>-1</sup>.<sup>3</sup>

Restoration of degraded peatlands (e.g. rewetting) may increase methane emissions in the initial stages, but the reduction in GHG emissions is substantial – whilst rewetted fens and bogs in the UK emit on average 3.13 t CO<sub>2</sub> e ha<sup>-1</sup> yr<sup>-1</sup>, the overall GHG emissions amount to an average of just 2.35 t CO<sub>2</sub> e ha<sup>-1</sup> yr<sup>-1</sup>.<sup>3</sup> Adopting appropriate management practices can further reduce methane emissions from rewetting activities.

The emission of methane from healthy peatlands is a natural process. Due to a relatively short atmospheric lifetime of methane (c. 7-12 years), a dynamic equilibrium is established over time as the same amount of methane disappears as is added. As healthy peatlands act as a net sink of carbon, they do not contribute to global warming over the longer term. When considering the overall GHG balance across UK peatlands, near-natural bogs and fens combined currently act as a net GHG sink of -0.04 t CO<sub>2</sub> ha<sup>-1</sup> yr<sup>-1</sup>.<sup>3</sup> If the goal is to limit the increase in global average temperatures, the overall GHG emissions must be taken into account, and methane emissions should not be considered in isolation. Peatland restoration can reduce GHG emissions in the long term, despite the small increases in methane emissions immediately after rewetting.

Halting degradation of our natural peatlands and restoring those which are already degraded is a cost effective and efficient way to reduce methane emissions. Considering the above net balance of methane emissions in healthy peatlands- weighed against other benefits- we should seek to rapidly restore the UK's peatlands and ensure adequate investment and skills are available to achieve this. We understand the relationship between water table depth and methane production in peatlands and so, in the most part, restoration and re-wetting can be achieved whilst minimising methane production.

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<sup>6</sup> [Peatland Code update report v7 AR5 \(nerc.ac.uk\)](https://www.nerc.ac.uk/publications/peatland-code-update-report-v7-ar5/)