

# Briefing Dartmoor farm businesses flourish with focus on environmental recovery

September 2023



## Summary

[The Dartmoor Review](#) provides an opportunity for the UK government to improve support for the restoration of nature and the wider environment on Dartmoor. Our analysis shows farm businesses on Dartmoor would be more sustainable and profitable by reducing grazing to a level that allows nature to recover, provided public payments offer farmers a fair price for the resulting environmental improvement. This change has a negligible impact on UK food production, and Dartmoor would continue to supply meat to local markets.

## Background

Earlier this year, the UK government commissioned an independent review into the management of land in Dartmoor National Park. This review will advise on the support needed to improve the condition of Sites of Special Scientific Interest on Dartmoor. At present, just 19 per cent of these habitats are in a healthy state.

## Farm incomes

A forthcoming Green Alliance report will show that the incomes of upland grazing farms could more than double if farms focused on delivering environmental benefits, rather than solely food production, despite the withdrawal of direct payments through the Basic Payment Scheme.<sup>1</sup>

This insight is relevant to the concerns of Dartmoor farmers, who consider their incomes are under threat by requirements to reduce grazing. Our modelling suggests the opposite would be true, if the government accurately valued the carbon that these farmers are able to sequester on their land.

Our new analysis finds that the average livestock grazing farm could retain its 2018 level of income, despite the withdrawal of direct payments, by diversification. Doing so could involve, for example, farmers retaining grazing livestock on half their land, whilst creating woodland on the other half. Farms which focus on environmental delivery across their whole farm could more

than double their 2018 level of income. Farms on peat soils, where woodland creation is not appropriate, could retain their 2018 level of income by rewetting their soil and maintaining it with a low level of grazing, whilst being compensated for the carbon emissions this would avoid. In practice, in an upland environment, many farms could both rewet their peat soils and create woodland on other soils while maintaining some conservation grazing.

Our findings, however, require the government to set fair prices for environmental goods. We conducted our analysis using the UK's emissions trading scheme carbon price, at an average of £75 per tCO<sub>2</sub> (in 2022) this is much more generous than the £10-20 per tCO<sub>2</sub> offered through the Woodland and Peatland Carbon Codes. Reforming the rates farmers are paid to reduce and store carbon, to reflect the value put on climate change mitigation elsewhere in the economy, is essential to reward farms properly for the benefits they provide. This could be done entirely via England's Environmental Land Management scheme.

Payments that reward other environmental benefits, such as nature restoration, improved water quality and flood mitigation, could increase incomes further and ensure systems are resilient. In particular, habitats created with a diverse array of native species will cope better in a changing climate with more weather extremes, and the emergence of new pests and diseases. Restoring the natural capital on these farms could increase farmers' incomes by much more than the primary focus on food production has achieved over the past 60 years since the Common Agricultural Policy began.

## Food production

Grazing on Dartmoor is not a major source of UK food production, as revealed in the National Food Strategy, it falls within the least productive 20 per cent of land that produces less than three per cent of the food produced in England.<sup>2</sup> More broadly, grassland takes up 63 per cent of the UK's farmed area but produces just 14 per cent of the calories and 22 per cent of the protein produced. Most of Dartmoor is grade 5 agricultural land: this is the least well suited to food production but is exceptionally well suited to delivering carbon storage and natural habitat.

In the UK, the average person [has access to](#) 3,344kcal per person per day (before food waste, losses and feed fed to livestock, all of which mean actual calorie consumption is much lower). Reducing stocking density to restore natural capital on Dartmoor would see that figure fall to 3,343kcal per person per day.<sup>3</sup> If the government wished to replace that one kcal per person per day, it could redirect three per cent of the land area used for growing edible crops that are currently being turned into UK biofuel back into food eaten by people.

Reducing food production to restore nature on Dartmoor would have a negligible impact on the UK's food security.

Local food production has both cultural value and can contribute to a local economy and national resilience. Even if stocking density on Dartmoor is reduced significantly, as we suggest, enough meat could still be produced to supply a local abattoir and local butchers whilst retaining the appropriate level of livestock to manage habitats, notably to manage the invasive *Molinia* grass.<sup>4</sup>

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## Endnotes

<sup>1</sup> These farm income figures are based on average upland grazing farms in England. Farms in Dartmoor may differ due to their participation in the Higher Level Stewardship scheme and its relatively generous payments.

<sup>2</sup> National Food Strategy, 2021, *The plan*

<sup>3</sup> Following the National Food Strategy's assessment of calories produced on grassland, we assumed the 40,000 hectares of permanent grassland on Dartmoor is responsible for approximately 0.05 per cent of the calories and 0.08 per cent of the protein produced in England. This equates to one four thousandth of the calories and protein consumed in the UK. For comparison, the 40,000 hectares of Dartmoor produce the same amount of food as 1,961 hectares of cropland elsewhere. We assumed restoring nature would require up to a 90% reduction in grazing.

<sup>4</sup> The majority of abattoirs in the UK process fewer than 5,000 cattle and sheep per year. Currently Dartmoor has 43,000 cattle and 195,000 sheep. See: Dr J R Franks and Dr R Peden, August 2021, *An economic analysis of the role and viability of small abattoirs in the red meat supply chain*, School of Natural and Environmental Sciences (SNES), University of Newcastle, for the Prince's Countryside Fund; and Defra datasheet on English National Parks, July 2022, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088050/structure-june-eng-nationalparks-05jul22.ods](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088050/structure-june-eng-nationalparks-05jul22.ods)