

Challenges and entrepreneurial opportunities for hill and upland farmers post-brexit

Farming stakeholder report

July 2024





Preface

"This report is a timely and important exploration of both the challenges and the opportunities for upland and hill farmers in the current farming climate. It provides an honest assessment of the impact of post-Brexit policies and the implications for farmers' businesses and wellbeing. The findings of this report are valuable in helping The Farming Community Network (FCN) in our work 'walking with' farmers through the challenges and changes ahead and helping them to explore their options. I hope this report will be widely read and its recommendations can help to improve the support and opportunities available to our farming community."



Alex Phillimore, Head of Communications and Development, The Farming Community Network

April 15, 2024

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We would also like to extend our gratitude to the farmers and agricultural stakeholders we worked with. We have anonymised their details but captured their thoughts and insights. You know who you are; thank you for giving up your valuable time to chat and engage. We hope we have done you justice in presenting the difficulties that you are currently facing to a wider audience. The ones expressed in this report are a drop in the ocean of the true challenges you face, and we hope by bringing these matters to light we can encourage people to begin thinking about practical ways to address them and make your lives a tad easier.

Biographies



Dr. Peter Gittins:

Peter is a Lecturer in Entrepreneurship Studies at the University of Leeds, currently researching constrained rural entrepreneurship. His work examines the challenges and constraints facing rural entrepreneurs in the UK and internationally. He has published in numerous internationally excellent academic journals on a range of rural issues, delving into the challenges rural entrepreneurs face in various countries including the UK, Jordan, South Africa and Greece. Beyond academic journals he has contributed to The Conversation and Yorkshire Bylines and has been featured in the Yorkshire Post discussing farming topics. Peter is also a sheep farmer.



Dr. Deema Refai:

Deema is an Associate Professor at the University of Leeds in the Centre for Enterprise and Entrepreneurship Studies. She has published in internationally excellent and world-leading academic journals, with her current research focusing on constrained entrepreneurship. After previously examining the constraints facing refugees she is now exploring the challenges encountered by rural entrepreneurs; having conducted prior research in rural Jordan and Egypt she is currently focused on the UK. In addition to her academic work, Dr. Refai serves as the Editor-in-Chief of the International Journal of Entrepreneurship and Innovation.





Challenges facing farmers

• Economic uncertainties:

Post-Brexit policy changes have introduced economic uncertainties for hill and upland farmers, particularly as the reduction and eventual loss of European Union (EU) subsidies heightens the risk of financial instability.

• Environmental scheme difficulties:

Upland farmers face difficulties with new environmental schemes that, while aimed at sustainability, impose additional layers of uncertainty and administrative burdens.

Demographic challenges:

Demographic challenges affect the ageing farmer population, who struggle with the transition to new agricultural practices and technologies. This risks the exclusion of older farmers and the loss of their traditional knowledge.

• Decline in trust:

A significant decline in trust among upland farmers towards the government's post-Brexit agricultural policies raises concerns about the implications of future trade agreements and regulatory changes.

• Mental wellbeing and morale:

Farmers' mental wellbeing and morale have deteriorated due to increased socioeconomic pressures in the post-Brexit environment, and there are concerns about the effectiveness of new subsidy systems to meet the needs of all farmers.

• Guidance and support for net zero:

Farmers want clearer guidance and stronger government support in achieving net zero emissions, indicating there's a gap in current support measures.

Access to information:

Farmers experience significant barriers in accessing detailed and clear information about new policies, which complicates their ability to comply with, and benefit from, these regulations. Complex and inaccessible information particularly affects older farmers and those with limited digital skills.

• Identity and environmental trade-offs:

The push for environmental sustainability through new farming schemes often challenges the traditional producer identities of farmers, leading to conflicts between maintaining traditional farming practices and adapting to environmentally focused changes.

Opportunities for farmers

• Environmental branding:

Farmers could adopt environmental branding to appeal to a growing market for sustainably produced products, potentially leading to access to premium markets and prices.

• Efficiency and productivity:

New technologies offer opportunities for increased efficiency and productivity, which may also result in environmental benefits. Technology adoption is supported by available grants.

• Carbon sequestration revenue:

Activities like tree planting and peatland management that contribute to carbon sequestration efforts could bring additional revenue.

• Market positioning and pricing:

There are prospects for better market positioning and prices due to post-Brexit trade deals that may favour commodities produced with higher environmental and welfare standards.

• Financial stability through environmental schemes:

Agricultural environmental schemes that reward environmentally friendly practices and support the transition towards sustainable farming could bring added financial stability. There is more economic support for farmers already pursuing environmental actions on-farm.

Native breeds for niche markets:

Rare and native breeds offer access to niche markets, thereby enhancing rural activities and supporting broader environmental conservation initiatives.

Policy recommendations

Recommendation 1: Enhancing social sustainability

 Design and implement incentive schemes within the existing/proposed sustainability frameworks (ie. Environmental Land Management [ELM] scheme/Sustainable Farming Incentive [SFI] scheme) that reward traditional farming techniques and preserve socially and culturally significant practices.

Recommendation 2: Increased support and clarity in delivering sustainability goals

 Enhance support for UK farmers to achieve net zero by developing a Defra-approved carbon tool, clarifying objectives for individual farms and offering targeted training and financial incentives.

Recommendation 3: Strengthened support infrastructure

 Strengthen the local and regional support framework to connect upland farmers with government agricultural policies more effectively and improve economic resilience, and enhance communication and support networks so that new schemes can be adopted easily.

These recommendations aim to address the nuanced challenges faced by farmers to promote a more inclusive, sustainable and economically viable farming sector in the post-Brexit landscape.

The farming policy landscape





Upland farmers continue to navigate a period of significant change and uncertainty in the wake of Brexit. In this research report we highlight the increasing sociopolitical constraints that pose challenges for upland farming businesses, the entrepreneurial opportunities that are emerging in this post-Brexit landscape, and the implications of these findings for policy. It is intended for a broad spectrum of agricultural stakeholders – including farmers, agricultural consultants, trade bodies, agricultural charities, farming networks and policymakers.

Since the UK's departure from the EU in 2020, the UK has devised its own domestic agricultural policy. This policy framework seeks to address criticisms of the European Union's Common Agricultural Policy (CAP), notably by eliminating farm subsidies and shifting towards environmental sustainability via a devolved governmental approach.

Farmers are now incentivised to produce 'public goods' - things that are good for the public that aren't accounted for in the market price of the goods, such as clean air, clean and plentiful water, reduction in (and protection from) environmental hazards, thriving plants and wildlife, mitigation of (and adaptation to) climate change, and enhanced beauty, heritage and engagement with the natural environment (Defra, 2021). This policy shift aligns with broader environmental objectives, including the UK government's commitment to achieving net zero by 2050. This goal aims to balance the greenhouse gases emitted with an equivalent amount removed, thereby preventing any net increase. However, these changes have introduced significant uncertainties for upland farmers and are also shaping the development of farm policy.

This report summarises the findings of a research project conducted at Leeds University Business School by Dr. Peter Gittins and Dr. Deema Refai. It explores the constraints faced by upland farming businesses in England amid the pressures to adapt to post-Brexit farm policies, namely the rollout of the Environmental Land Management schemes. It enquires into the lived experiences of farmers and offers insights into the real-world impacts of the recent policy shifts.

Upland farming

Upland farming practices in hilly and mountainous regions have shaped those landscapes for centuries. High altitude, severe weather, rugged terrain and geographical isolation make these vast moorlands a demanding setting both for living and for carrying out business activities.

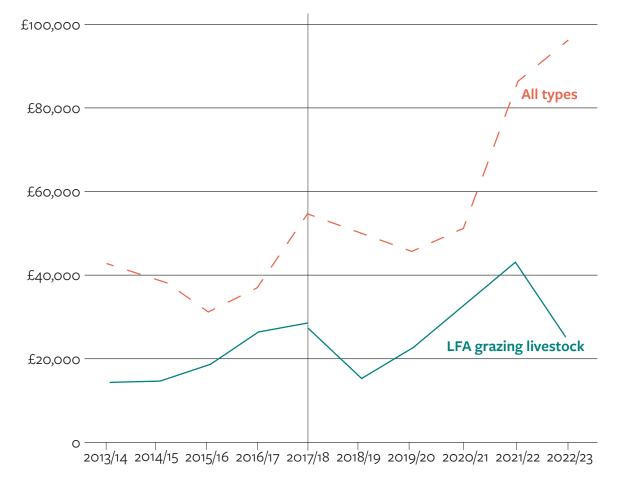
Upland farmers typically engage in low-input activities such as breeding hill sheep and suckler cows, often using marginal land. The topography of these landscapes is diverse, encompassing pastureland, rough grazing areas and sections of common land – all of which hold considerable environmental value.

For instance, peat bogs in these rural expanses act as vital carbon sinks, and the grasslands offer habitats that support a range of farmland bird species. Upland areas play a crucial role in meeting environmental sustainability targets.

The economics behind running a farm enterprise

Economic uncertainty is a stark reality for today's upland farmers, influenced strongly by the phasing out of EU farm subsidies. As figure 1 shows, Office for National Statistics (ONS) data indicates that farmers in Less Favoured Areas (LFAs), are subject to more severe economic constraints than other farming types (Defra, 2024).

Figure 1 Average farm business income: an analysis of data by farm type, for the year 2022/2023



Reproduced from: https://www.gov.uk/government/statistics/farm-business-income/farm-business-income-by-type-of-farm-in-england-202223-2

Maintaining profitability remains a key challenge and recent events, including the ongoing cost-of-living crisis, have contributed to rising input costs for farmers. These include increased prices for red diesel, fertilisers, electricity and general living expenses (Agriculture and Horticulture Development Board [AHDB], 2023).

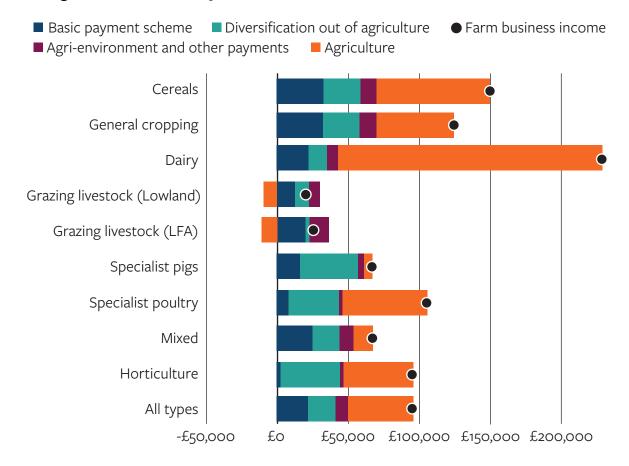
LFA farmers incurred a net loss of farm business income (FBI) from agricultural activities for the year 2022/23 (Defra, 2024). Basic Payment Scheme subsidies formed the most significant component of their annual business income (figure 2). Indeed, subsidies can comprise up to 90% of a farmer's annual income (Abboud, 2018). Diversification activities

and income from agri-environmental schemes also play vital roles in sustaining these farm businesses, with these schemes being used as part of a necessity-based strategy for some farmers to stay afloat.

In the wake of Brexit, considerable economic uncertainty looms over the sector. The average FBI of an upland farm in the 2022/23 financial year was just £25,400 – almost £10,000 below the UK's median salary for full-time employed workers (ONS, 2023).

EU subsidies are a critical financial resource for many upland farmers, so their removal must be handled with caution.

Figure 2 Income across farm types: average farm business income for livestock farms in England, broken down by cost centres



Reproduced from: https://www.gov.uk/government/statistics/farm-business-income/farm-business-income-by-type-of-farm-in-england-202223-2

Brexit and the shift in farm policy

Since joining the European Union's CAP in 1973, the UK's farmers have received substantial support from it (European Council, 2024). They have benefited from a range of support mechanisms as the CAP has evolved through multiple reforms. Initially, policies incentivised food production through headage payments to farmers, which resulted in surplus production. Subsequent reforms transformed this approach to area-based payments, where farmers were compensated based on the amount of land they managed (ie. payments per hectare), rather than on production volume. Recent reforms of CAP policies have incorporated environmental considerations, offering farmers subsidies based on land ownership alongside incentives for adopting sustainable practices. For instance, farmers now have the option to participate in the Countryside Stewardship scheme (CSS), which rewards environmental stewardship.

Following Brexit, the UK government has critiqued the CAP, introducing new subsidies and grants that reward farmers for producing 'public goods' and environmental services. This approach, part of the 'Green Brexit' vision and wider environmental commitments such as achieving net zero emissions by 2050 and decarbonising all sectors, has influenced rural policy decisions (Defra, 2023).

Indeed, the rationale for moving away from the EU's CAP is multi-faceted. Defra's document 'Moving away from direct payments' (2018:3) states:

"Direct Payments are a poor tool for income support and can introduce distortionary incentives that inhibit productivity. Reform of Direct Payments policy through a new agriculture and land management policy framework provides the opportunity to move towards a farming sector that provides high-quality food while enhancing our environment"

Further details outlined in the same work by Defra express a desire for a more equitable distribution of subsidies that does not disproportionately benefit large landowners. It calls for more accountability for taxpayer funds and enhanced national sovereignty over agricultural policies and trade agreements. It also advocates for tackling inflated land prices and offering greater support to tenant farmers. The aim is to guide the sector away from practices that hinder productivity and resource efficiency, while simultaneously boosting the farming sector's contributions to environmental stewardship.

With the foundation of past policies setting the stage, the transition towards a post-subsidy era presents both challenges and opportunities for the farming sector as it adapts to the evolving agricultural landscape.

A transition away from subsidies

Defra's Agricultural Transition Plan (2022) envisions a future where farms operate sustainably without relying on public subsidies. The policy ambitions it plans to realise by 2028 include:

- Achieving businesses that run sustainably and are independent of public subsidy
- Combining profitable food production with nature restoration, leveraging modern technology alongside traditional farming practices

Key activities during this transition include phasing out the Basic Payment Scheme (BPS), introducing ELMs and implementing the Lump Sum Exit Scheme, which offers payments to farmers leaving the industry. While participation in these schemes is optional, Defra aims for 70% of farmers to engage with the Sustainable Farming Incentive (SFI) – one of the three pillars of ELMs – by 2028. This is a considerable target given that, currently, only 11,000 of England's 55,000 farmers have joined the SFI (Defra, 2024).

This shift in national policy paves the way for the implementation of ELMs in England, with the goal of placing farmers at the forefront of landscape stewardship and aligning the objectives of productivity with environmental wellbeing.



Environmental Land Management schemes

Currently, many farmers are contemplating the future of their business and the broader industry, and considering ELMs. These schemes, which are crucial for reallocating £2.4 billion to UK farmers annually (Harvey and Horton, 2023) consist of three tiers:

Environmental Land Management scheme:	Scheme aim:
Sustainable Farming Incentive (SFI)	Rewards farmers for adopting sustainable farming practices that enhance food production while protecting the environment.
Local nature recovery	Acts as a more ambitious successor to the Countryside Stewardship scheme, paying for actions that integrate nature into the farmed landscape and wider countryside alongside food production.
Landscape recovery	Focuses on projects that deliver outcomes for net zero emissions, biodiversity and water quality improvements.



Agricultural policy – a devolved matter

Similar initiatives are being developed across the UK. Wales has introduced the 'Sustainable Farming Scheme'. Scotland and Northern Ireland are also highlighting the importance of environmental sustainability in farming practices. While specific policy frameworks in these regions are still forthcoming the direction is clear – farming policies will increasingly focus on ecological stewardship.

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These post-Brexit farm schemes are aligned with broader Defra and UK government initiatives such as the 25-Year Environment Plan (25YEP), supporting the nation's legal obligation to achieve net zero emissions by 2050. They also complement wider supply chain and food

policies outlined in the National Food Strategy. The introduction of these farming schemes is a key step towards meeting ambitious environmental targets. By promoting sustainable agriculture, they help pave the way for the UK's transition to net zero emissions, reinforcing commitments to enhance biodiversity and to support the wellbeing of both nature and farming communities.

But, as will be revealed later in our report, farmers have concerns with the rollout of these schemes.







This study took place between March and November 2023. We adopted an ethnographic approach. We used a qualitative methodology and a multi-method approach consisting of interviews, observations, photographs and a research diary.

We interviewed 15 farmers on farms in three English counties with many upland areas: Yorkshire, Cumbria and Devon. Farmer interviews were essential in helping to capture the lived experiences of farmers and gain firsthand insights into their issues. Additionally, online interviews with ten key agricultural stakeholders helped to provide a broader perspective on industry challenges. The responses have been anonymised, with an overview presented in table 1 and table 2.

Observations also formed an integral part of the research, using the farm as the research setting. These observations entailed walking around the farm to view its operations and to gain an initial insight, before conducting formal interviews in the farmhouse kitchen or a barn. We have used photographs to visually document the contexts within which farmers operate. We have used this approach before in previously published academic research (See Gittins and McElwee, 2023).

A key part of the study involved a two-day workshop, which was held at the University of Leeds Research Farm, titled 'Food, Farming, and Countryside: Entrepreneurial Opportunities and Challenges with Net Zero'.

This event brought together farmers, agricultural charities, environmental groups and policy perspectives to discuss the future of the UK's farming sector (Gittins, 2023).

After the event, conversational notes were entered into the researcher's diary, summarising the key issues raised by stakeholders. Interview transcripts, diary entries and photographs from the project were subsequently stored in a qualitative data analysis software. Following analysis of the qualitative data, key themes emerged and we discuss these in the findings sections of this report.

The central research question guiding this study is:

• What challenges and opportunities are hill and upland farmers facing due to changes in farm policy after Brexit?

Table 1: Overview of farmer interviews

Respondent ID	Location	Farm size (hectares)	Main farm produce	Other details
Chris	Yorkshire	64	Beef and sheep	Involved in environmental schemes, lifetime tenancy, diversified income streams, undergoing policy transitions
Alex & Jamie	Yorkshire	55	Beef and sheep	Combined two family farms, focus on sustainable farming, pasture for life certification in progress
Simon	Yorkshire	100	Beef and sheep	Traditional farm with limited diversification, limited technology adoption, does not own a smartphone, computer, or have internet access
Charles & Susan	Yorkshire	80	Beef and sheep	Participating in agri- environmental schemes
Tommy & Sarah	Cumbria	50	Beef and sheep	Ages 35 and 30, direct sales to public, heavy social media engagement for business promotion, focus on public interaction
Jordan & Leslie	Cumbria	800	Beef and sheep	Conservation grazing, sells directly to public, works with conservation organisations, involved in high nature value sites

Respondent ID	Location	Farm size (hectares)	Main farm produce	Other details
Rachel	Cumbria	70	Sheep	Diversification-focused, engages in multiple agricultural and non- agricultural activities
Morgan	Lake District	73	Beef and sheep	Contract with Morrison's, focused on conservation grazing, preparing for full-time farming at 55
Roger	Devon	120	Beef and sheep	40 years old, works with father, into regenerative agriculture
Evelyn & Arthur	Devon	150	Beef with some lowland cropping	Both over 60, engaged in direct selling, conservation efforts and maintaining farm diversity amid changing subsidies



Table 2: Agricultural stakeholder respondents

Respondent ID	Organisation type	Region	Organisation description	Key focus area
Rachel	Environmental NGO	Cumbria	Works regionally to support Cumbria in achieving its net zero targets through community engagement	Sustainability, net zero initiatives, farming community support
Charlie	Charity	National	Provides support to farmers, walking with them in the field to understand constraints and challenges	Mental health and wellbeing of farmers
Jordan	Livestock conservation charity	National	Aims to encourage farmers to consider adding rare and native breeds to their farming systems, provides research and policy guidance	Rare and native breed preservation, agricultural policy
Taylor	Technology company	National	Develops and markets carbon mapping software to help farmers measure emissions and make informed decisions for environmental sustainability	Carbon mapping, environmental sustainability in farming
Stacey	Agricultural consultancy	National	Provides environmental consultancy advice to farmers, expert in carbon-mapping tools	Environmental consultancy, carbon- mapping expertise

Respondent ID	Organisation type	Region	Organisation description	Key focus area
Gordon	Agricultural trade body	National	Specialises in exploring the potential of marketing British lamb in overseas countries, focusing on halal and Muslim markets	International marketing, halal certification, market expansion
Leslie	Planning office	Regional, Yorkshire	Works on a long- term urban planning project, seeking to understand how farming communities might integrate into future city plans	Urban planning, community integration, sustainable development
Tracey	Agricultural support network	National	Provides help and support to farmers and their businesses, operating as an independent not-for-profit entity	Farmer support, business assistance, networking
Lucy	Farming society	Regional, Yorkshire	Facilitates networking events for farmers, directs them to funds, resources, and grants, engages with the public about farming	Networking, public engagement, funding access
Nick	Environmental research organisation	National	Works on environmental research alongside a focus on practical barriers to tree planting and conflicts between nature conservation and food production	Environmental research, tree planting, food production conflicts





Political

"I'd like them [government] to tell the public that we're not as bad as they think we are, like they have to stand up for us. One politician said we don't need British agriculture. And then we went into that first lockdown, and they were like 'Oh, we do'. I just think something has to change because so many farmers can't continue"

Arthur, farmer from Devon

Throughout the interviews, many upland farmers said they have less trust in the government and its management of post-Brexit farm policy. All the farmers we interviewed shared concerns about the potential impact of new trade agreements on their businesses, particularly the risk of overseas imports undercutting local prices, as well as environmental and animal welfare standards. Farmers also voiced apprehensions about the future of ELMs should a change in government occur in the next general election.

Older farmers tended to have more uncertainties around how ELMs will impact their businesses. Some view the rollout of ELMs and the increasing greening of [agricultural] policies as an opportunity for the UK government to remove the funding support from farmers, arguing that they [government] don't want small farms as they are economically unviable, suggesting food could always be imported from outside the UK (ie. not contributing to territorial emissions) and for the necessary food production, large (ie. mega farms) could accommodate this, rendering small farms redundant. The loss of the small family farm is a worry among farmers.

"If farming isn't supported as it was before, we'll lose many farmers who have been on farms for many generations. Their skills and instincts will disappear, replaced by agribusiness. Maybe that's the intention, I'm not certain. What's available to us isn't clear. All I know is that we must keep bashing on"

Roger, farmer from Devon

The language used by the government was frequently mentioned by the farmers, who need greater clarity. They felt that government advice was often comprehensive in volume yet also vague in substance. For example, farmers are given extensive PDF documents about new schemes but are left with little understanding of how these will practically apply to their businesses. This sentiment is captured in a farmer's remark, illustrating their frustration with feeling distanced from the decision-making process. Farmers also said they want the government to communicate the value of British agriculture to the public more strongly.

"It would be nice if the government wrote down specifics rather than just the maze of general words, cloud of words, but no actual facts because I've read the stuff a few times. It's like I haven't actually learnt anything from that. They have just been kind of keeping everyone at an arm's length, haven't they, while they think something?"

Susan, farmer from Yorkshire

Economic

"With that basic payment taken out of the business, it's really difficult and it's going to limit our ambition for nature not having the basic payment because there just isn't as much cash in the business. You know, I said to you that we can make about £10,000, our basic payment is more than that. So that's going to take us into a situation where we're not making any money and things that we want to do for nature, which my accountant, is saying, you know, we should actually stop doing that [carrying out environmental actions]"

Morgan, farmer from Cumbria

The elimination of the Basic Payment Scheme is a major economic worry for many farmers. Farmers were concerned about how their farms will manage to remain operational without this source of income and whether new schemes will adequately compensate for the loss. A significant number depend heavily on these subsidies, which constitute a large portion of their annual earnings. The gradual reduction of subsidies has led to major cash-flow problems for farmers.

The farmers were concerned about how the reduction in the BPS could force lots of older farmers to leave the sector. Indeed, many older farmers are reliant on the BPS. The loss of such farmers will mean the loss of the social and cultural value that their activities bring.

Moreover, other farmers worried that large landowners would still benefit the most from the new schemes, doubting whether the post-Brexit subsidy schemes would reduce inequalities between larger and smaller farms.

"Well, it seems to me that there's a danger with these, you know, all the new elements of SFI [Sustainable Farming Incentive] and everything that, you know, they were saying, 'oh, well, the old system was terrible because the biggest landowners got by far the most money'. Well, that's inevitably always going to be the case, because if you're paying per acre or paying per animal or whatever, the larger farmers are always going to get more, aren't they? But there's a real danger with the new scheme that it's actually going to be loaded even more onto the larger farmers, especially the ones with sort of large areas of moorland or something like that, which used to be worthless" Sarah, farmer from Cumbria

Social

"When we're talking to farmers about reduction in subsidies and ultimately phasing out subsidies by 2027, you know farmers aren't happy about it by any means... There's a lack of focus on food production and actually paying farmers to do what they're primarily there to do, which is to create food for the nation. So within that, I would say that at the moment we're in an interesting transition period where there is a lot of uncertainty still"

Lucy, senior officer at a farmer support network

The ageing farmer population have significant challenges in understanding, accessing and complying with new schemes. Farmers aged 65+ were worried about the complexity of these schemes and had difficulty understanding the bureaucratic procedures required for compliance. The prospect of engaging in agrienvironmental schemes and committing to these schemes and activities, such as making permanent land use changes through tree planting, is something older farmers feel less confident about.

The move towards environmental farming practices is also causing social tensions for some farmers and rural communities. Older

"The latest guidance for the SFI was like an almost 200-page document, wasn't it? And to understand what that means, you know, for individual farms of all different sizes, it can be quite tricky to understand..."

Evelyn, farmer from Devon

farmers in particular have expressed concerns about a potential shift away from traditional/conventional farming methods (ie. food production activities) with greater pressures for them to carry out environmental activities.

Activities such as carbon offsetting initiatives were raised frequently, with farmers concerned that these changes in work will lead to reduced labour on farms and fewer social interactions. Although these activities are environmentally friendly and contribute to renewable energy production they can come with social tradeoffs. Indeed, tensions arise between the push for environmental sustainability and its impact on rural communities. Some farmers perceive certain eco-friendly practices, such as diversification into renewable energy, as contributing factors to rural depopulation.

"So, there's this piece of land up here that was once part of our farm but is now being sold separately. It was sold separately when we bought the farm and has recently been sold to someone who's using it for offsetting. It used to support 900 sheep and employed a full-time shepherd. This represents a cultural loss to the area. Now, it's just sitting there. We're seeing fewer people around, a diminished community, fewer people to collaborate with, which is very isolating for those who are here. Moreover, it's a loss of traditional skills that are passed down from one generation to the next. That's a significant loss to the cultural heritage of the area"

Morgan, farmer from Cumbria

Technological

"I really struggle with buying equipment. It is just too costly. The grants and the schemes are all settled for the big boys. There's nothing for the little man. It's all on new [machinery], nothing for used"

Tommy from Cumbria

While there is significant potential for the agricultural sector to adopt advanced technology to enhance productivity and contribute more effectively to environmental efforts, leveraging Industry 4.0 technologies such as big data, artificial intelligence, drones and sensors remains a substantial challenge. The adoption of new digital technologies could be invaluable in assisting farmers to achieve environmental sustainability goals; however farmers acknowledged considerable barriers to adoption.

Key obstacles to embracing technology included suitability to farm system and costs associated with purchasing and implementing the technology.

Farmers also expressed concerns about new initiatives designed to modernise farm businesses through the adoption of technology. They highlight the scarcity of opportunities to buy second-hand machinery and argue that incentives for new machinery are of little significance to them, as it is typically only large farms and contract farmers who can afford to purchase new equipment.

The development of digital skills is also an issue for farmers. Carbon mapping, for example, was a key digital technology discussed.

"We're actually looking into carbon mapping right now, it's part of our new strategy to integrate more environmental measures. The thing is, the software and the data collection it involves, it's not the simplest. You've got to have some level of digital savvy to really get a grip on it. I've been trying to get my head around it because if we can show we're reducing our carbon footprint, that might help with some of the grants and funding available. But it's a steep learning curve" Jordan, farmer from Cumbria

Physical infrastructure also constrained technology uptake. Many of the older farmers interviewed adopted very little technology and often had no access to the internet or a computer. This not only impacts the extent to which technology can be integrated to support the core activities of the business (ie. livestock husbandry) but also affects how they can access important information about post-Brexit schemes.

"We also know that some farmers have dyslexia, some farmers don't have the greatest literacy skills... If information is coming out in a very literary form and almost written in quite an academic way and not everyone can access the information... A lot of them don't even have an email address... We have to appreciate the average age of a farmer in this country is about 59, late fifties. We just assume that... everyone's online, everyone's really able to download a PDF. And I think actually we have to stop assuming that because that's not necessarily the case" Charlie, senior rep from an agricultural mental health charity

Legal

"It's always on their terms. You ring up, you're stuck on hold forever just trying to get some help... And the paperwork, well that's a nightmare if you don't have a computer. But let me tell you, they have no problem getting a hold of you when they want to. Like for a fine, they find you fast enough. Could've sorted it if they'd just talked to us sooner, couldn't we?"

Leslie, farmer from Cumbria

The farmers felt that bureaucracy was a significant obstacle; many said they cannot communicate effectively with government agencies such as Defra, Natural England and the Environmental Agency. They reported that dealings with government agencies were invariably on the agencies' terms, describing the relationship as distinctly one-directional. Many described spending hours on the telephone, often on hold, trying to access information or get help and advice. Additionally, they encountered difficulties in obtaining essential paper-based documents, as they sometimes do not have digital means. Nonetheless, farmers observed that these agencies had no difficulty in contacting them when necessary.

Farmers are navigating a landscape of stringent environmental regulations and societal pressures to achieve net zero emissions. There is a strong sense that communication is top-down and too authoritarian. Accessing information around new grants, alongside compliance with new grants when in new agri-environmental schemes, was a key concern among older

farmers. Information is often overwhelming, and many farmers do not see how proposed schemes fit with the requirements of their business and the local environment. Local understanding is needed.

"On this particular parcel, I'm engaged with Countryside Stewardship, higher tier woodlands, and two different funding landscapes grants: the Lake District Foundation Fund and the Yorkshire Dales Millennium Trust Grant, among others I can't quite recall. So, for that single parcel of land, I'm juggling six different grant schemes. I'm managing all of these responsibilities just to keep things afloat. It's a daunting task, and I can only imagine the struggle for those who find it challenging to navigate the paperwork for six different grant schemes on one parcel of land" Morgan, farmer from Lake District

Farmers were uncertain about the impact of net zero on their businesses. Some have requested more explicit guidance on what is expected of them, questioning whether net zero or carbon neutrality needs to be achieved at the individual farm level and, if so, what the specific expectations are, or if it applies more broadly at the industry level. Many farmers raised concerns over the practicalities of reaching net zero.

"The wider government strategy is to be net zero by 2050 and to decarbonise all sectors including agriculture... It sounds good on the global stage. The details of how that is actually practically going to be applied is probably a lot more complicated than that and does require everyone's buy-in... The big challenge for me is just how do you actually bring farmers along with you on that journey?" Nick, senior advisor at environmental charity

Primarily, concerns have been raised about the government's handling of net zero policies and the implications for livelihoods, especially regarding livestock husbandry, which is central to upland farming. Livestock practices are a significant source of methane emissions, leading to worries about the government's long-term plans for managing this issue.

"To achieve net zero, we need fewer livestock... The issue is how you do that in a way that means that those who farm livestock particularly in those areas where you can't do much else can make a go of it"

Jordan, CEO of livestock conservation charity

While some farmers have actively embraced plans to decarbonise the sector others were much more sceptical, again highlighting the critical issue of trust in government.

"I just think the whole thing's a fraud, isn't it? The whole system is. They say we need to be net zero by this date or whatever, but then you look around, and it's like, how are we supposed to do that? They're asking us to cut down on everything, change everything up, but the support? It's minimal. You try and get some clear answers from anyone, Defra or otherwise, and it's all as clear as mud... it's like they forget the real work we do here. It's easy for someone sitting in an office to make these rules and targets, but we're the ones who have to actually make it happen. It's overwhelming, honestly, and without proper guidance or realistic support, it feels like they're setting us up to fail" Tommy, farmer from Cumbria

Environmental

"That's one of the challenges with these schemes – the impact that they'll have on livestock management practices... A lot of agricultural land being taken out of production...
That's the trade-off with food security. Just where will our food come from?"

Chris, farmer from Yorkshire

Some farmers who are already engaged in pro-environmental farming practices view changes to the existing subsidy system as an opportunity to earn additional income from things they are already doing, or want to do. However, others have criticised the scheme for its limited options and lack of compatibility with their conventional, food production-focused businesses.

Traditionalist and hobbyist farmers, who may not operate the most financially profitable ventures or contribute significantly to environmental efforts, feel excluded by the current SFI options. Traditionalist farmers make up a large part of the sector, with four in ten farmers over the age of 65. These farmers are a vital segment of the industry and are seeking greater support for their practices, which possess social and cultural importance.

A key finding is that farmers are seeking a broader range of replacement subsidies that reward activities of social and cultural significance, thereby making schemes more inclusive for traditionalist farmers. While they believe current SFI options provide ample opportunities to deliver environmental

benefits, they feel there should be more options to deliver on other public goods, engaging in activities that enhance Defra's (2024) progress on providing 'beauty, heritage and engagement with the natural environment'. This inclusion would enhance social sustainability.

"The hefted flock is central to much of our cultural heritage; our festivals and skills are all deeply intertwined with it. It is absolutely crucial for maintaining culture in the Dales and the Lakes, yet there's no funding available for this. We need funding to preserve these elements in the first place.... Everyone can appreciate the visible aspects like walls, barns and farmhouses, recognising their value in the landscape. However, the true value lies in the gatherings, the shepherding, the collaboration and the transfer of skills. This is where the real value is, yet there's no funding to support it" Morgan, farmer from Cumbria

Farmers have raised concerns about the escalating pressures to meet sustainability agendas. For example, the drive to reduce carbon emissions is not necessarily spurred by the farmers' own incentives but by demands further along the agri-food supply chain. This varies depending on the type of farming business: for instance, farmers involved in animal breeding (eg. suckler beef and store lamb production systems) faced fewer pressures. Those engaged in direct selling discovered that some customers were willing to pay higher premiums for specific products (eg. net zero beef). Supermarkets exerted the greatest pressure, with some requiring farmers to conduct carbon audits as a prerequisite for partnership.







The challenges faced by the farming industry in adapting to post-Brexit schemes are substantial, but this is by no means a narrative steeped only in pessimism and cynicism. Had this report concluded here, it might have left a rather bleak impression. However, periods of great change also bring new opportunities for those farmers who are entrepreneurially alert.

What follows is our exploration of these opportunities.

Pro-environmental branding

UK agricultural systems, particularly hill and upland systems, are rich in natural capital. Some farmers are leveraging their net zero achievements to brand their products, appealing to customers who value environmental responsibility. This enhances product appeal and potentially commands premium prices, for example, net zero beef and lamb, locally produced, with place-based marketing.

This approach is beneficial for entrepreneurial farmers who have engaged in direct selling and diversified strategies to cater to local economy demands.

"We've always incorporated net zero into our branding because why not? We take our animals to the local abattoir, then to our local butchers; they are all grass-fed on quality local pasture, then it goes locally to our customers. There is no shorter supply chain than that, and people value that. Our system is environmentally friendly" Charles, farmer from Yorkshire

Farmers can pursue opportunities within the local economy and showcase the environmental contributions they make. Some may already achieve net zero and can find innovative ways to integrate this into their business, demonstrating to customers and other stakeholders the environmental value they deliver.

Efficiency and productivity

Improving efficiency and reducing farm inputs can result in significant cost savings and lower greenhouse gas (GHG) emissions. Strategies such as optimising animal feed to finish livestock more quickly not only reduce expenses but may also enhance sustainability profiles. Productivity could be improved through the adoption of new technologies.

"There is a fair amount of funding now available for farmers to invest in and upgrade their equipment. If farmers can become more productive, this has obvious environmental benefits. Fewer inputs, quicker fattening and finishing means fewer emissions. This also leads to cost savings"

Taylor, agricultural technology consultant



Market dynamics

While individual farmers have limited influence over market prices, there is an opportunity to benefit from new trade deals that favour commodities produced under higher environmental and welfare standards. This could offer better prices and market positioning for compliant farmers. Although many farmers have concerns over new trade deals, market prices have remained strong. Agricultural commodities produced in environmentally friendly manners (eg. extensive systems) could provide a market advantage in the global trading sphere.

"British farmers produce some of the best quality commodities in the world. I market our beef and lamb products globally, and there are new market opportunities for British beef and lamb. Customers in the Middle East, especially, value the taste and quality, and the conditions in which the animals are produced... Hill and upland farmers also have the opportunity to diversify their target markets by tapping into the growing domestic and Middle East halal markets"

Gordon, trade expert for meat levy board

Carbon markets and private investment

Engagement in some carbon sequestration activities, such as hedgerow planting and improving soil health structure, presents a dual benefit. It contributes to environmental goals and provides a potential income stream through agri-environmental payments. Activities (often incentivised via agri-environmental scheme options) such as tree and hedgerow planting, wool utilisation in novel ways, and peat bog management, represent valuable elements of natural capital.

"I could make more money planting woodlands and exiting farming. Some farmers are considering, okay, if I invest in renewable energy, perhaps through solar panels or wind turbines, that's now a viable option. Or even battery storage, depending on their location on the grid and other factors"

Sarah, farmer from Cumbria

Though farmers mentioned significant challenges in understanding the carbon market and their role within it during the interviews, they raised questions about 'carbon credits' and the ownership of carbon on farms. They said they'd welcome support and clarity in this area.

The carbon market provides farmers with an opportunity to receive payments from external investors for carbon offset projects. This activity requires careful consideration due to the potential need for permanent land-use changes, but it represents a significant opportunity for additional revenue.

"There is a lot of money and interest coming into the industry from outside investment. I've heard of some receiving tens of thousands of pounds per hectare for renewable energy offsetting. But the issue is, many of us, myself included, do not fully understand the carbon market, so we are quite reluctant to engage and invest. These are big decisions, often requiring permanent land-use changes. We also have to consider the issue of food security"

Jamie, farmer from Yorkshire

Native breeds

Incorporating rare and native livestock breeds can align with many sustainability initiatives. It can also provide farmers with opportunities for farm diversification, such as supporting direct selling and agri-tourism initiatives. These breeds often carry social and cultural significance and can be marketed as speciality products tied to the unique character of their regions, supporting place-based rural activities.

The future of farming may involve producing less livestock but better quality, more fitting with nature and regional landscapes.

"As we depart from the EU, farmers face the loss of support from the Basic Payment Scheme and may find competing in global markets more challenging due to restricted access and the absence of subsidies. Farmers must seek new methods of operation, starting with reducing input costs. Native breeds, which are well-suited to these challenges, offer an opportunity for farmers to emphasise their low environmental footprint and the unique sense of place associated with many breeds. This opens avenues for savvy marketing to create distinctive products.

The cultural aspect of sheep, for instance, showcases the innovative use of local resources. A remarkable example is someone in the Lake District who bought Herdwick wool from farmers to create Herdwick tweed, capitalising on the region's connection to the Lake District and Beatrix Potter. This initiative has led to premium products, such as Herdwick shepherd's bags and Herdwick tweed jackets, being sold for substantial amounts, even in international markets like Japan. This success illustrates how a sense of place can add value, with non-meat products now generating as much revenue as meat, making the animals economically viable.

However, to achieve net zero, we need to reduce livestock numbers. The challenge lies in managing this reduction in a way that allows livestock farmers, especially in areas unsuitable for other types of agriculture, to thrive. This may result in meat becoming more expensive and perceived as a luxury, potentially limiting consumption to those with higher incomes unless alternative strategies are developed. From a farmer's perspective, focusing on charging a premium for a superior product, for which native breeds are exceptionally suited, is a viable approach"

Jordan, CEO of livestock social enterprise



Agricultural environmental schemes

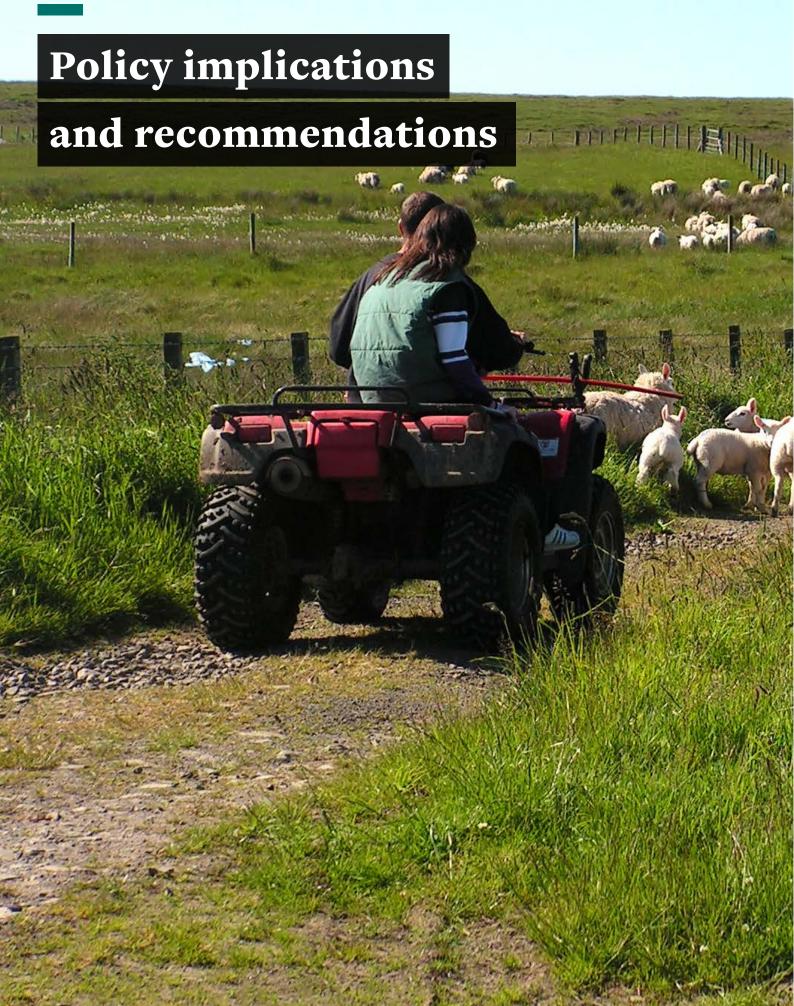
Participation in agri-environmental schemes such as those offered under ELMs allow farmers to sustain their income while also contributing to environmental goals. These schemes can offer financial stability during the transition to more sustainable practices. Farmers who are already engaged in such activities and who are motivated by proenvironmental behaviours can now receive payments for activities that align with what they want to do and what they were already doing.

"It's not all doom and gloom in the industry. While many are sad to see the subsidies go, we are not among them. We have always strived to farm without relying on subsidies. I know many tenant farmers who don't benefit from subsidies directly, as their landlords receive it all. I believe the new changes are positive, allowing our environmental efforts to be recognised and providing us with income for the practices we are already implementing. Before entering farming, I studied environmental management at university, and even then, we discussed these topics. Now, they're moving to the forefront of policy. This represents an opportunity to apply what I learned through my education" Sarah, farmer from Cumbria

Indeed, while many are disappointed by the removal of European subsidies, others are not. Some farmers have been implementing environmental actions on their farms for many years, becoming accredited through programmes such as Pasture for Life, and have chosen this path due to their environmental consciousness. These farmers are now being rewarded for their actions, whereas previously no economic incentive was provided.

"I think it's brilliant that we're finally seeing the value of what we do with the land being recognised. We've been practising regenerative agriculture for a while now, not just because it's good for the environment, but because we believe it's the right thing to do. Knowing that there's going to be financial support for these practices is very encouraging. It feels like we're on the right path, and for once, it seems like the government is acknowledging that as well"

Susan, farmer from Yorkshire





First and foremost, it must be said that the UK government provides significant support for farmers, and it is encouraging to see this continue as we move away from the EU's CAP. It is also refreshing to note that farmers have had opportunities to collaborate with Defra in devising these new schemes. Moreover, it is positive to see the government providing funding to help farmers make more substantial environmental contributions.

Nonetheless, the research findings from this work do have implications for policy. Below, we outline three aspects that should remain central to the new post-Brexit subsidy schemes, which will assist farmers in adapting to changes. These relate to the role of hill and upland farmers within sustainability schemes (eg. SFI/ELMs, etc), the expectations placed on farmers and their role in delivering environmental goals (eg. achieving net zero by 2050) and the support structure needed to help farmers respond effectively to post-Brexit schemes.

Addressing these three areas of policy concern is essential in helping farmers cope better with the constraints within the industry.

Recommendation 1: Enhancing social sustainability:

Design and implement incentive schemes within the ELM/ SFI framework that reward traditional farming techniques and preserve socially and culturally significant practices.

Rationale

For something to be 'sustainable', it must encompass economic, environmental and social sustainability. While Defra has designed the ELMs with environmental sustainability as a priority, our findings indicate that improvements are necessary to enhance the economic and social aspects.

Currently, the SFI mainly supports farmers who exhibit strong pro-environmental behaviours. This excludes traditional farm approaches that have high social and cultural value.

Farmers have expressed concerns regarding the lack of options for hill and upland systems, poor payment rates for actions and a sense of exclusion from the existing SFI.

Exclusion of traditionalist farmers, due to the loss of subsidies, could lead to the sacrifice of socially and culturally important practices. Traditionalist farmers might be reluctant to take part in agri-environmental schemes for various reasons, such as wanting to maintain food producer roles, difficulty accessing information around schemes, lack of ability to learn new skills. Nonetheless, traditionalist farmers through their activities deliver significant amounts of social and cultural good. These practices are 'public goods' and must be sustained.

Defra could include additional payments under the SFI helping to sustain these practices. Adding more heritage-based payments to the SFI would enhance social sustainability, incentivising farmers to engage in traditional farming practices that contribute to the social and cultural fabric of rural communities, enhance biodiversity, preserve cultural heritage and strengthen community identity.

These additional options would also preserve culturally and socially important activities that are an integral part of the rural landscape, and engage traditionalist and hobbyist farmers in these schemes, who currently feel excluded. This addition would assist in the delivery of Public Goods: addressing gaps in the current SFI by contributing to beauty, heritage, and public engagement with the natural environment.

Such activities might include:

- Working dogs
- Hefted flocks
- Hand shearing
- Use of vintage and classical machinery
- Historical farming practices
- Training of the next generation
- Engagement in local agricultural shows and village fetes



Recommendation 2: Increased support and clarity in delivering sustainability goals:

Enhance support for UK farmers to achieve net zero by developing a Defra-approved carbon tool, clarifying objectives for individual farms and offering targeted training and financial incentives.

Rationale

Our second recommendation addresses the broader theme of achieving sustainability goals such as the net zero policy and its implications for UK agriculture, and highlights the confusion and ambiguity farmers face.

Farmers are seeking greater clarity about what net zero means for their business. What actions are required of them? Will the UK government commit to safeguarding UK food production and avoid importing food to reduce territorial emissions? Will net zero be measured at the industry level, or will individual farms be required to achieve it? If so, what support, such as financial assistance, will be provided to facilitate these changes? Will there be support to help farmers learn about reducing emissions on their farms? The themes of reliable tools and skills will be essential in supporting farmers with the net zero agricultural transition.

Given the wide range of tools available Defra could play a crucial role in identifying and recommending tools that are not only accurate but also tailored to the unique contexts they measure, such as hill and upland areas. Many farmers expressed concerns about the accuracy of current tools, their unsuitability for specific farm types, challenges in interpreting the data and in obtaining actionable advice on how to use this data to achieve both environmental and business objectives.

Among farmers who are already net zero, assuming accurate calculation, some recommended payments to incentivise others to embark on their own net zero journeys. Additional payments could be provided to farmers who have made considerable progress in reducing emissions and to those who have achieved net zero status – assuming it could be reliably measured on an individual farm basis. This, of course, should be done with economic rationality, ie. compensating farmers for the income they lose by engaging in more environmentally sustainable activities.

Implementing such support would enable the UK government to advance towards net zero targets. It would encourage a more cohesive approach to measuring and reporting GHG emissions in agriculture. It would also provide clear guidance and support for farmers striving to achieve net zero, and amplify the sector's contribution to climate objectives.



Recommendation 3: Strengthened support infrastructure

Strengthen the local and regional support framework to better connect upland farmers with government agricultural policies, improve economic resilience and enable effective adoption of new schemes through improved communication and support networks.

Rationale

The final recommendation centres on establishing a robust, resilient and supportive environment that appreciates the context in which upland farmers function. Prosperity in farm businesses is interlinked with the vitality of the rural economy, which itself depends on a variety of essential services ranging from abattoirs and livestock auctions to pubs and veterinary practices.

Addressing the physical infrastructure is just one piece of the puzzle; the knowledge infrastructure is equally important.

Communication gaps between farmers and top-level government, especially in conveying policy objectives and their practical implications at the farm level, were widely evident in the findings.

Overcoming the information access challenge is critical. This involves analysing how information is transmitted in policy documents, from how clear or complex the language is to how long they are. It also involves looking at how easily they can be accessed — all while accounting for the varied digital literacy levels of farmers. The traditionalist farmers' struggle with accessing predominantly online information about new initiatives underscores the need for more accessible and navigable resources.

Broadband infrastructure also requires improvements in many upland areas.

Farmers are eager for a clearer understanding of how to align their business practices with national priorities. Despite some using local catchment-sensitive officers to inform their decisions, there's still a prevailing air of mistrust. The growing call for local agents, who are neutral and not affiliated with organisations such as Defra, Natural England and the Environment Agency, shows there is a critical need for trust and context-specific guidance.

"There's a lot to be said for the local advice networks. It's all very well having these overarching policies and schemes, but at the ground level farmers are often left feeling puzzled about how to integrate these into their existing practices. We need localised support that can really get into the nitty-gritty of what these policies mean for individual farmers. Ideally, this support should come from those who know the area and understand its specific challenges and opportunities"

Charlie, senior representative from an agricultural mental health charity

Farmers see government policy as being too centralised and disconnected from local realities, and this advocates for new, bespoke local advisory services. These services would bridge the divide between overarching national policies and the on-the-ground realities faced by farmers.

Formal networks and societies play a crucial role in helping farmers understand the details of new schemes and grants. Yet these bodies are often regionally based and, largely, absent in many upland areas. Moreover, not every farmer is part of these networks due to other factors such as cost and time. Despite this, such networks are useful, forging key links between farmers and wider industry stakeholders.

Existing support structures like agricultural networks and societies could receive additional funding to provide more extensive advice on these matters. The funding could be channelled through existing mechanisms like the Rural England Prosperity Fund and distributed by combined authorities. Training programmes to

future-proof farming businesses and develop entrepreneurial skills would also prove invaluable. Universities could play a role in facilitating knowledge exchange, particularly Business Schools.

Farmers are often constrained by their local and regional economies. To support farmers moving forward, especially in a post-Brexit landscape, investments in these economies are crucial to ensure that farm businesses receive the backing they need to pursue and realise their strategic visions.





This report highlights the significant impact of post-Brexit policies on the farming sector. Farmers are facing socio-political uncertainty, particularly concerning the adjustment to subsidy removal, legislative pressures and bureaucracy. These issues are more acute for older farmers.

Farmers are also worried about policies that are overly focused on environmental objectives, which are negatively affecting the industry's social dynamics and potentially leading to mental health issues, labour decline, isolation and a weakening of rural communities.

However, the situation is not entirely bleak. Change presents opportunities, especially for entrepreneurial farmers engaged in environmentally friendly practices, local supply chains and promoting net zero products to maintain business income.

Farmers can't go green if they're in the red.

We offer three policy recommendations:

- 1. Expand the sustainable farming incentive to include and reward socially and culturally significant farming activities, encouraging participation from traditional upland farmers who feel left out of new schemes.
- 2. Address concerns regarding the accuracy of carbon calculators and the lack of clear guidelines for farmers about net zero requirements. A reliable tool must be provided by the government, with clear expectations and incentives for farmers to adopt it. Sustainability must not come at the cost of financial viability. Farmers can't go green if they're in the red.
- 3. Enhance support infrastructure for farmers, from offering tailored local advice and supporting farmer-led regional services to assist in navigating complex government policies, to ensuring accessibility for those in remote areas without digital access and bolstering broader infrastructural support within the rural economy.

These recommendations aim to address the challenges within the industry and to give farmers the opportunities to overcome them.

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