

Fertile Ground

Accelerating the Transition
to Net Zero Agriculture



About Bankers for Net Zero

Bankers for Net Zero is a collaborative initiative bringing together leaders from the UK banking sector, along with representatives from business and government, who share a commitment to accelerate the UK's transition to net zero greenhouse gas emissions. The initiative was established in 2020 to develop ambitious but achievable policy recommendations, backed by a commitment to action from banks. Bankers for Net Zero is the UK Chapter of the UN-convened Net Zero Banking Alliance.

The Bankers for Net Zero Agriculture working group was established in December 2022 to develop specific recommendations for accelerating UK agriculture's transition to net zero. The working group includes participants from the following banks and stakeholder organisations: Atom Bank, Gentle Farming, Handelsbanken, HSBC UK, Linking Environment And Farming (LEAF), the National Farmers' Union (NFU), the Nature Friendly Farming Network (NFFN), Oxbury Bank Plc, Paragon Banking Group, Re:Pattern, the Soil Association and Triodos Bank UK.

The working group was facilitated by Volans, a think tank and advisory firm at the forefront of sustainability and innovation, and co-founder of the Bankers for Net Zero initiative.

About this Briefing Paper

This paper is written primarily for parliamentarians and policymakers. Our aim is to set out in the simplest terms how the combination of action from banks and policymakers can accelerate progress towards net zero for the UK's agriculture sector.

The ideas and recommendations in this document are the product of a series of working sessions and interviews involving banks and industry stakeholders. The Bankers for Net Zero initiative participants and partners are eager to work with parliamentarians and policymakers to bring the ideas in this paper to fruition and to ensure that government action has the desired impact of catalysing private sector action.



Endorsements

"The clarity and recommendations in this briefing are timely and important. The production standards of British agriculture are world-leading with respect to efficiency, nature alignment and animal welfare. However, there remains a substantial requirement in the UK to invest in a transition to a new production paradigm which works to restore and maintain natural capital if we are to ensure ongoing food security in a world facing climate catastrophe. The challenge in the agriculture sector is unique: CO2 emissions are not the primary issue and most emissions are biogenic rather than derived from fossil fuel combustion. But such challenges mean the opportunities for innovation, value-creation and a thriving rural economy based on investment in natural capital, always aligned to healthy food production, are just as large. The briefing's recommendations, including the crucial role of the entire financial sector – and commercial banks in particular – cover all these issues and more. The briefing offers policymakers, including financial regulators, a roadmap to put essential support behind the transition in a sector on which we all depend. As an expert relationship-led bank dedicated to the sector and aligned to the mission to transition, we are delighted to have contributed."

TIM COATES, Farmer and Co-Founder, Oxbury Bank Plc

"It is clear that the agriculture sector has a crucial role in the UK meeting its net zero commitment. It is particularly critical for farms to adapt as they are exposed to the physical risk of the impacts of climate change and the transition risk of the food supply chain. They must also meet regulatory demands to deliver a low carbon economy and to tread more lightly on the land we use to produce our food. Equally, as we wake up to the real value of nature that had been largely forgotten, the role of farming in supporting biodiversity cannot be overstated.

We have long recognised that banks have a crucial role to play in supporting the agricultural and land use sectors through this transition, but this is only achievable with coordinated, consistent support in long-term policy from government. Triodos Bank is therefore very pleased to be able to contribute to this timely and insightful briefing. If adopted, the recommendations brought forward in this paper will go a long way towards establishing a successful, forward looking, truly regenerative agricultural sector in the UK."

SIMON CRICHTON, Head of Relationship Management, Triodos Bank UK

"Ending harmful emissions in agriculture is critically important for the farmer, the public and the environment. To accelerate the process, we need accurate data and benchmarking allied with meaningful support to assist the farmer transition."

MIKE FELL, Branch Manager, Handelsbanken

"HSBC has worked closely with farmers for over 50 years through our team of specialist agricultural managers. We are committed to the industry and to supporting the transition towards more sustainable ways of food production in the UK while maintaining our national food security. Some of our customers have already started this journey however many still need a further catalyst for change or guidance and encouragement to pick up the pace of change.

I support the principles of Bankers for Net Zero and the actions described within this paper which would encourage greater participation in transition activities and accelerate the pace of change. It is my belief that a coordinated approach incorporating farmers themselves, food processors and retailers, those providing finance for change and the government will be essential to ensure that climate change objectives for the industry can be met on time. Agriculture is different to most industries in that most farmers in the UK take a long-term view and think about future generations. With this in mind, the approach to transitioning the industry needs to provide longer term certainty and consistency so that farmers have the confidence to invest in farms which can be sustainable in every sense of the word."

MARTIN HANSON, Head of Agricultural Banking, HSBC UK

"Bankers for Net Zero has made a timely and valuable contribution to the agriculture decarbonisation agenda with this briefing. The Soil Association fully supports the call for a joined-up approach to climate and nature. It will be crucial to ensure farmers can benefit from blended private and public support for a whole farm transition to agroecological farming systems like organic and agroforestry. Through Soil Association Exchange, we are working closely with banks and supply chain partners to unlock this transition by supporting farmers to measure their impact, access advice to improve and be rewarded through public and private finance."

JOANNA LEWIS, Policy Director, Soil Association

"Bankers for Net Zero have articulated the important role of private finance in mainstreaming nature-friendly farming. This briefing demonstrates how, with the right frameworks in place, farmers can harness the potential of public and private finance to help build resilient, regenerative businesses alongside a fair return for ambitious climate and nature action. We welcome the strong emphasis on peer-to-peer learning and the need for joined-up collaboration and action across all sectors, which will be vital in catalysing meaningful food system change. We hope this work helps stimulate action towards the future that farmers want and society needs."

MARTIN LINES, UK Chair, Nature Friendly Farming Network

"Paragon Banking Group is in support of the 'Fertile Ground' briefing paper for parliamentarians and policymakers. The paper sets out a number of recommendations which echo the findings of the independent Net Zero Review published this year. The paper draws out the need for certainty and clarity across the Agriculture sector which will help catalyse net zero action across the industry. The principles and recommendations highlight how policy can unlock early investment. Paragon hopes that these principles can be mirrored across other policy areas providing more continuity and consistency in the UK's approach to net zero."

JOSHUA POPE, Climate and ESG Risk, Paragon Banking Group



Agrichemical:

A chemical product applied in agriculture. Examples include synthetic fertilisers, hormones, growth agents and pesticides.¹ Often used interchangeably with agrochemical.

Agroecology:

The holistic incorporation of ecological and social principles in farming.² Agroecology encourages farming practices that reduce emissions, consider wildlife and foster place-based leadership and implementation.³ According to the European Commission, agroecology endeavours to achieve socially equitable food systems by ensuring the regenerative use of natural resources and ecosystem services.⁴

Nature-based solutions:

Strategies that address societal challenges while providing benefits for humans and nature, nature-based solutions (NbS) involve the protection, sustainable management and restoration of natural and modified ecosystems.⁵

Net zero:

The Science-Based Targets initiative (SBTi) defines net zero for companies as a reduction of their scope 1, 2 and 3 greenhouse gas (GHG) emissions to zero or to a residual level consistent with reaching net zero at a global or sectoral level in line with an eligible 1.5°C-aligned pathway. Any residual GHG emissions need to be neutralised by the net-zero target year and thereafter.⁶

Sustainable land management:

The use of practices adapted to the specific biophysical and socio-economic conditions of a place. Sustainable land management aims to protect, conserve and ensure the continued availability and restoration of natural resources and associated ecosystem services.⁷

Regenerative agriculture:

Though the term is frequently used, no single universally accepted definition of regenerative agriculture exists. The majority of definitions focus on processes (e.g. cover crop usage, no-till approaches), outcomes (e.g. carbon sequestration) or a combination of both.⁸ A 2019 report by Systemiq and Soil Capital outlines five principles of regenerative agriculture practices: farming with a context-specific design, minimal or no use of agrochemicals, maintaining permanent soil cover, minimal soil disturbance and maximum biodiversity.⁹



1 Agrichemical - Chem Europe

2 Agroecology Knowledge Hub - FAO

3 What is agroecology? - The Soil Association

4 Agroecology - European Commission, 2022

5 Nature-based Solutions - The International Union for Conservation of Nature

6 SBTi Corporate Net-Zero Standard - Science Based Targets, 2021

7 SLM practices - FAO

8 What Is regenerative agriculture? A review of scholar and practitioner definitions based on processes and outcomes - Newton et al., 2020

9 Regenerating Europe's Soils: Making the economics work - Systemiq & Soil Capital, 2019

Environmental Land Management schemes (ELMs) are the UK Government's funding schemes available to the agriculture sector in England to incentivise farmers to adopt sustainable, nature-positive practices (separate schemes are in place across the devolved nations). ELMs are being introduced to replace the Basic Payment Scheme (BPS) under the EU Common Agricultural Policy (CAP). The concurrent BPS phase-out and ELMs introduction will occur from 2021-2027. ELMs currently being rolled out include the Sustainable Farming Incentive, Landscape Recovery, Countryside Stewardship and Countryside Stewardship Plus. Further details on ELMs roll-out were announced in January 2023.¹⁰ ELMs are still evolving and do not cover all expected costs of transition.

ENVIRONMENTAL LAND MANAGEMENT SCHEMES

The Sustainable Farming Incentive

Launched in 2021, the Sustainable Farming Incentive (SFI) provides funding for the adoption and maintenance of environmentally sustainable farming practices that improve food production. All farmers can apply to the SFI, which incentivises low emissions farming practices such as soil and nutrient management.¹¹ The scheme expands annually; all standards are expected to be in place across England by the end of 2024.¹²

Landscape Recovery

The Landscape Recovery scheme funds long-term projects that support landscape and ecosystem recovery. The pilot phase began in 2022 and the scheme will launch fully in 2024.¹³

Countryside Stewardship

Countryside Stewardship (CS) Grants pay farmers and landowners for targeted actions relating to land management, water quality and air quality.¹⁴ Over 250 options are currently offered, with new options being introduced over time as CS continues to evolve through 2024.¹⁵

Countryside Stewardship Plus

The Countryside Stewardship Plus (CS Plus) options provide funding for actions with significant impact, wide-scale coordination and delivery of positive results. The scheme will continue to evolve through 2024.¹⁶

10 Environmental Land Management update - 2023

11 Sustainable Farming Incentive guidance - Defra, 2023

12 Farming Minister Mark Spencer: National Farmers Union Conference - HM Government, 2023

13 Environmental Land Management schemes: overview - 2021

14 Countryside Stewardship grants

15 Environment Improvement Plan 2023 - HM Government

16 Environmental Land Management update - 2023

The Farming Investment Fund

The Farming Investment Fund (FIF) was launched in 2021 to provide grants to farmers, foresters, growers and contractors with the aim of sustainably improving productivity and associated environmental benefits. The FIF consists of two separate funds: the Farming Equipment and Technology Fund, offering grants towards equipment that will improve productivity and efficiency (from £1,000-25,000), and the Farming Transformation Fund, offering grants towards large capital items (from £25,000-500,000).¹⁷

The Farming Innovation Programme

The Farming Innovation Programme was launched in 2021 by Defra in partnership with UK Research and Innovation (UKRI). The Programme provides funding to innovation projects through five competitions: Research Starter Projects, Feasibility Projects, Small R&D Partnership Projects, Large R&D Partnership Projects and Farming Futures R&D Projects. The first round of competitions was held in 2022 and competitions will continue through 2023.¹⁸

The Nature for Climate Fund

The Nature for Climate Fund (NCF) programme, funded by the UK Government, was launched in 2020 to support woodland creation and peatland restoration. Funding is provided to landowners, organisations and environmental groups, local authorities, charities and public bodies through the administration of Nature for Climate Peatland and Woodland Grant Schemes.¹⁹ In total, the NCF will pay out £750 million from 2020 through 2025.²⁰



17 Farming Investment Fund - 2023

18 Farming Innovation: Find about funding - UKRI, 2023

19 Nature for Climate Peatland Grant Scheme - 2023

20 6 October 2022: Accounting Officers Assessment for Nature for Climate Fund - 2023



Introduction: Agriculture and net zero

Agriculture is responsible for 11% of total greenhouse gas (GHG) emissions in the UK, despite only representing 0.5% of GDP.²¹ Concerningly, emissions from agriculture and land use have remained relatively stable since 2008, which is inconsistent with the UK Government's Net Zero target.²² Accelerating the transition to low-emissions and nature-positive farming is essential if the UK is to meet its long-term climate and nature goals.

The good news is that a majority of UK farmers are already on board to some degree. The 2022 Farm Practices Survey indicated that 58% of farmers are already taking action to reduce GHG emissions and 64% of farmers think it is important to consider GHGs when making farm business decisions.²³ But they face a number of barriers to action: in particular, a lack of incentive, information and clarity on what to do.²⁴ Given the connection between net zero and general business efficiency, linking net zero to the bottom line may foster additional engagement.

The food value chain is committed to the net zero transition. The Courtauld Agreement has been signed by numerous food processors and 90% of major supermarkets in the UK. Alongside targets for reducing food waste and protecting water, the agreement sets a target to reduce GHG emissions associated with food and drink consumed by 50% by 2030, against a 2015 baseline.²⁵

Billions of pounds a year in investment is required to align agriculture and land use with climate and nature goals. Estimates of the gap between committed public spending and total required spending vary, but whichever set of figures you use, the gap is large. For example, in 2021, the Green Finance Institute estimated that the finance gap for nature-related outcomes across the UK was £56 billion over the next 10 years.²⁶ For context, the agriculture industry's gross output in 2021 was £30 billion – while total profits were £6 billion.²⁷

We are only just starting to understand the true value these investments will create. Markets for climate- and nature-positive outcomes are emerging. Globally the trend is towards more comprehensive pricing of GHG emissions. If the Zero Carbon Commission's proposal that, by 2030, agriculture should face a £75/tCO₂e charge on both inputs (such as heating, electricity and fuel) and outputs (such as methane and nitrous oxide) were implemented, this would profoundly change the economics of transitioning.²⁸

The Government's commitment to using public money to pay for public goods is welcome, but current policies are insufficient to deliver the pace of change required. The rollout of the Environmental Land Management schemes (ELMs) has been criticised due to delays in implementation and a lack of detail. The Skidmore Review²⁹ calls on the Government to publish full details of all ELMs and future plans by the end of 2023 – with a particular focus on how participants can take advantage of both public and private finance. This would certainly be welcome: clarity about what farmers will be paid to do and confidence that the government's approach will be consistent over the long term are essential prerequisites for most farmers and land managers to take steps to decarbonise their operations.

UK banks can help accelerate progress but need government to coordinate and clarify the direction of travel.

21 Agriculture in the UK Evidence Pack - Defra, 2022

22 Progress is reducing emissions - Climate Change Committee, 2022

23 Agri-climate report 2022 - Defra

24 Agri-climate report 2022 - Defra

25 The Courtauld Commitment 2030 - WRAP

26 The Finance Gap for UK Nature - Green Finance Institute, eftec & Rayment Consulting Services, 2021

27 Agriculture in the UK Evidence Pack - Defra, 2022

28 The Zero Carbon Commission - 2020

29 Mission Zero: Independent Review of Net Zero - Skidmore, 2023

UK agriculture in numbers³⁰



There are more than

200,000

farm holdings in the UK.



More than

4.1m

people are employed in the sector³⁴.



Roughly half of all food

consumed in the UK is produced domestically.



Farmers and land managers are responsible for

71% of all UK land

– more than

17 million hectares



Agriculture represents

0.5% of UK GDP

– contributing more than

£11 billion

in gross value added.

In 2021/22, the average farm business income for all farms in England was **£86,100**, with **48%** coming from agricultural activity, **32%** coming from subsidies and **19%** from diversified income.³¹

The source of GHG emissions is **largely attributed to land use change and farm-stage emissions**, including fertiliser application and the digestive processes of livestock.

In 2020, agriculture was the source of **11%** of total UK GHG emissions; **69%** of total nitrous oxide emissions; **48%** of total methane emissions; and **1.7%** of total carbon dioxide emissions. With overall GHG emissions decreasing by **16%** since 1990. The emissions intensity of UK sheep is **99.34 kg CO₂e/kg meat (kg/kg)**, cattle **93.37 kg/kg**, dairy **77.56 kg/kg**, and pigs **56.66 kg/kg**.³² Methane emissions from agriculture are biogenic (recycled carbon, not additional to the atmosphere – yet they contribute warming effects) and largely result from ruminant animal digestive processes, whilst carbon and nitrogen agriculture emissions are fossil fuel-derived.³³



30 Agriculture in the UK Evidence Pack - Defra, 2022

31 Farm Business Income by Cost Centre 2021/2022 - Defra

32 Agri-climate report 2022 - Defra

33 Rethinking methane from animal agriculture - Liu et al., 2021

34 National statistics: Food statistics in your pocket - 2023

Financing the transition

UK banks recognise that supporting their agriculture customers to reduce emissions is vital for achieving their climate and nature commitments. Banks are key partners to the farming community, with a role to play in providing both finance and advice. As a result, they have created a variety of products dedicated to financing 'green', including green and sustainable bonds and loans.³⁵

The demand for finance from farms and agribusinesses is likely to increase as they transition to net zero. Banks can help the industry manage the cost of investing in new equipment and the potential impact on cash flows of making nature-positive changes, such as reducing chemical inputs or adopting low- or no-tillage methods.

EXAMPLES OF GREEN PRODUCT INNOVATION

Barclays Bank UK offers green loans and set up a £250 million fund in 2020 that farmers can access to make their businesses more environmentally sustainable and energy efficient.

HSBC UK launched a £500 million green fund for small and medium-sized enterprises (SMEs) in 2021 to support businesses in the transition to a low-carbon economy, most of which it expects to go to the agricultural sector.

Lloyds Bank reduced the minimum loan size under its Clean Growth Financing Initiative (CGFI) to allow more SMEs to benefit from accessing money to make climate-friendly improvements. Lloyds is also funding the Soil Association Exchange, which provides tailored data, advice and financial opportunities to farmers.

Oxbury Bank is a specialist agriculture bank lending Farm Loans of £25,000+ to fund activities that include Carbon Reduction and Renewable Energy, Farm Infrastructure Improvements (including natural capital), Rural Diversification Projects and Succession Planning.

Triodos Bank provides loans of up to £20 million to agribusinesses for conversions to organic, refinancing and investing in growth, renewables and diversification.

KNOWLEDGE GAP

The benefits of regenerative agriculture practices are increasingly recognised, but there is still a long way to go until most farmers feel adequately supported, informed and skilled to begin their transitions. This has likely contributed to the low take-up of new debt, including 'green' loans. Notably, transition plans are still rare. HSBC UK estimates that only 20% of farming customers who have borrowed £2 million or above have a transition plan. Banks cannot accelerate progress in this area on their own: the support of policymakers is required for a coordinated approach to breaking down the barriers to action to realise the UK's desired climate, nature and biodiversity outcomes.

To support farming customers in starting their journey, banks have, to varying degrees, invested in farming and sustainability specialists to understand climate-related risks and the benefits of transition planning. However, the quality of the customer relationship can differ depending on the size of the bank and the size and nature of the loan.

Most farming businesses are small – over 90% of UK farms are made up of sole traders or family partnerships³⁶ – and are often not borrowing enough to access relationship banking. This results in a gap in customer climate and transition data and in the knowledge of available financial products and services. The use of digital agriculture tools offering advisory services and connecting smallholder farmers to finance saw a global uptick during the height of COVID-19 and could be used by banks to help fill advisory gaps in the UK.

INCENTIVISING TRANSITION FINANCE

As with other sectors, the integration of nature and climate-related risk into the credit life cycle – strategy, underwriting, portfolio management and reporting and disclosure – is still a challenge for banking teams. As a result, nature and climate-related risks are not yet fully accounted for in lending decisions, and banks' ability to improve incentives or raise the cost of capital on a case-by-case or sub-sectoral basis is limited.

35 UK farmers hungry for climate finance but banks want more data - Capital Monitor, 2022

36 Contributing to the economy - Countryside online, 2019

The Internal Ratings Based (IRB) system does allow banks approved by the Prudential Regulation Authority (PRA) to introduce new factors to calculate risk rather than relying on standardised assessments determined by regulators. However, using the IRB system requires banks to meet criteria that typically require significant investment in expanding data systems, updating risk assessment processes and upskilling staff. This is a level of transformation that qualifying banks fear pursuing without complete clarity regarding the nature and climate-related risk codes and standards they should abide by to 'get it right'.

CODES AND STANDARDS TO SUPPORT FINANCIAL INSTITUTION TRANSITION PLANNING

A variety of organisations, including the Glasgow Finance Alliance on Net Zero (GFANZ), the Carbon Disclosure Project (CDP), the Climate Policy Initiative (CPI) and the Partnership for Carbon Accounting Financials (PCAF) have outlined technical guidance for how to develop effective climate transition plans. The Science Based Targets initiative (SBTi), the Transition Pathway Initiative on Carbon Performance (TPI-CP), Climate Action 100+ (CA100+) and the Assessing low-Carbon Transition (ACT) initiative provide additional tools for the creation and assessment of effective climate transition plans.

Additional context about the elements of credible transition plan disclosures, as well as tools that can support success, are outlined in the WWF report, 'Nature in transition plans: Why and how?'³⁷ and the World Business Council for Sustainable Development (WBCSD)-convened Banking for Impact on Climate in Agriculture (B4ICA) report 'An Introductory Guide for Net Zero Target Setting for Farm-Based Agricultural Emissions'.³⁸

EXISTING TOOLS FOR THE NET ZERO AGRICULTURE TRANSITION

- **Agreed Earth** is building a data hub with data imaging capabilities to support farmers in their transition. They also facilitate farmer-to-farmer knowledge sharing.³⁹
- **Agreena** is a soil carbon platform offering payments for carbon sequestration and the option to purchase carbon sequestration credits. Agreena also has measuring, reporting and verification (MRV) capabilities, permitting the monitoring of cover crops, crop rotation and tillage.⁴⁰
- **Carbon by Indigo Ag** supports farmers in transitioning to regenerative farming practices so they can then offer registry-issued carbon credits. Indigo Ag also has an innovation and research focus, offers a course on soil carbon and provides advice on best practice.⁴¹
- **The Global Farm Metric** is a framework to comprehend, measure and monitor baseline farming data. The framework takes a holistic perspective of on-farm sustainability.⁴²
- **Regenagri** supports farms to accomplish their regenerative agriculture transition through providing information on measurements, reporting and compensation opportunities via their website and advisory support. Regenagri also offers certification and emissions data verification.⁴³
- **Soil Association Exchange** helps farmers get accurate, trusted data on farm impacts and seek advice either online or on-farm, as well as access financial reward. The scheme is backed by Lloyds Bank and a supply chain partner syndicate.⁴⁴
- **Soil Capital** provides payments based on soil carbon sequestration to arable farmers in the UK using bio or conventional farming systems. The Soil Capital platform allows direct comparison to other farms to support accelerated action.⁴⁵
- **In development: Perseus**, a collaboration between Icebreaker One and B4NZ, involves the creation of a common framework to automate GHG emissions reporting for UK SMEs. Perseus is a collaboration between UK SMEs, banks and energy companies.⁴⁶

Though there are a variety of tools that exist to support the net zero transition, they lack connectivity. Further direction on the complementarity of tools is required.

THE SHAPE OF THE TRANSITION

There is no "one size fits all" approach to decarbonising agriculture. Emissions reductions can be delivered through a range of incremental measures – such as operational efficiencies and improvements to livestock diet, health and manure management – as well as more holistic "whole farm" approaches. This paper is not the place for a detailed discussion of which combination of measures may be appropriate for different types of farms across the UK.

37 Nature in transition plans: Why and how? - WWF UK, 2023

38 An Introductory Guide for Net Zero Target Setting for Farm-Based Agricultural Emissions - WBCSD, 2022

39 Agreed Earth

40 Agreena

41 Indigo Ag

42 The Global Farm Metric Framework - Global Farm Metric, 2022

43 Regenagri

44 Profitable & Sustainable Farming - Soil Association Exchange, 2023

45 Soil Capital

46 Bankers for Net Zero (B4NZ) – 'Perseus' - Icebreaker One, 2023

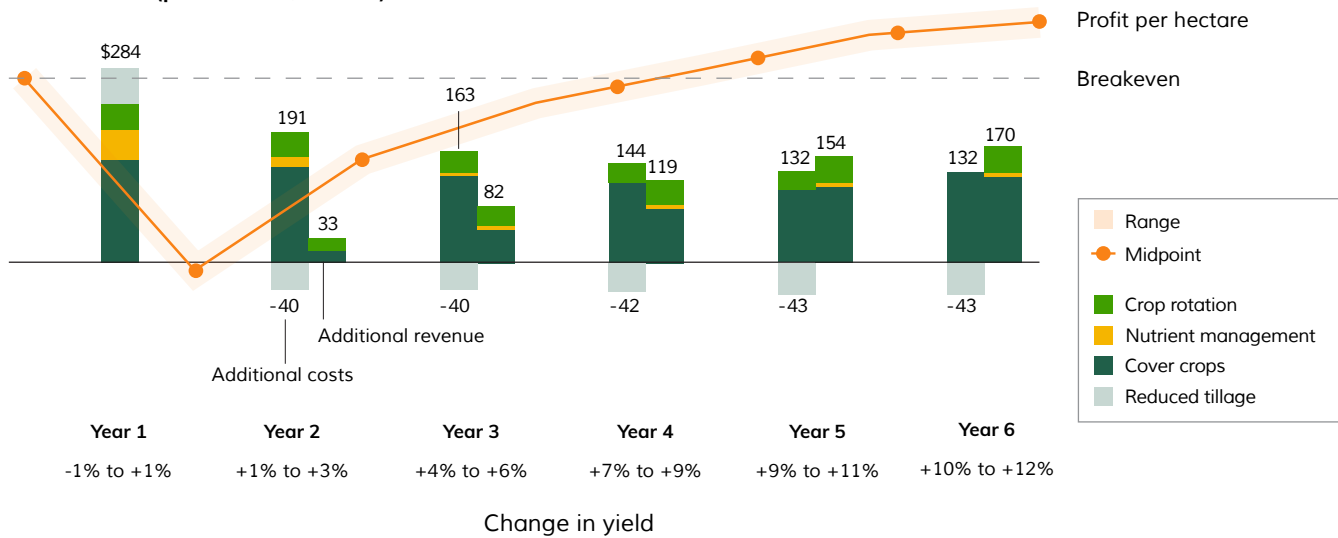
What is clear, however, is that getting to net zero will require many farms to undergo a fundamental transformation in how they operate. The number of farmers embracing agroecological or regenerative practices will need to grow dramatically. This transition will have an impact on farming businesses' costs and revenues that needs to be managed.

Though it is hard to predict due to the infancy of regenerative farming and the number of environmental and market factors to consider, studies show that farmers shifting to regenerative techniques can increase their profit margins by as much as 30% in the long run. This typically comes after some loss in yield during the first couple of seasons as the changes embed. Farms may then break even in the third and fourth seasons, and by the fifth or sixth season, begin to see greater profitability. This creates a profit 'J-curve'.⁴⁷

Though the J-curve is not inevitable or uniform for all farms, banks can play a vital role in supporting farmers with finance through a short-term disruption in yields and profitability.

With four years to break even, most farmers will need incentives and financial support to adopt regenerative practices

Profit or loss (per hectare, in USD)



Notes: Based on a sample corn farm in Ontario, Canada; doesn't consider inflation; baseline profit kept constant to isolate for impacts of adoption of regenerative techniques
Sources: Nature United, Master NCS Report, 2021; USDA EQIP Practice Scenarios; USDA EQIP Incentives; US Soil Health Partnership; Bain & Company

FLATTENING THE J-CURVE

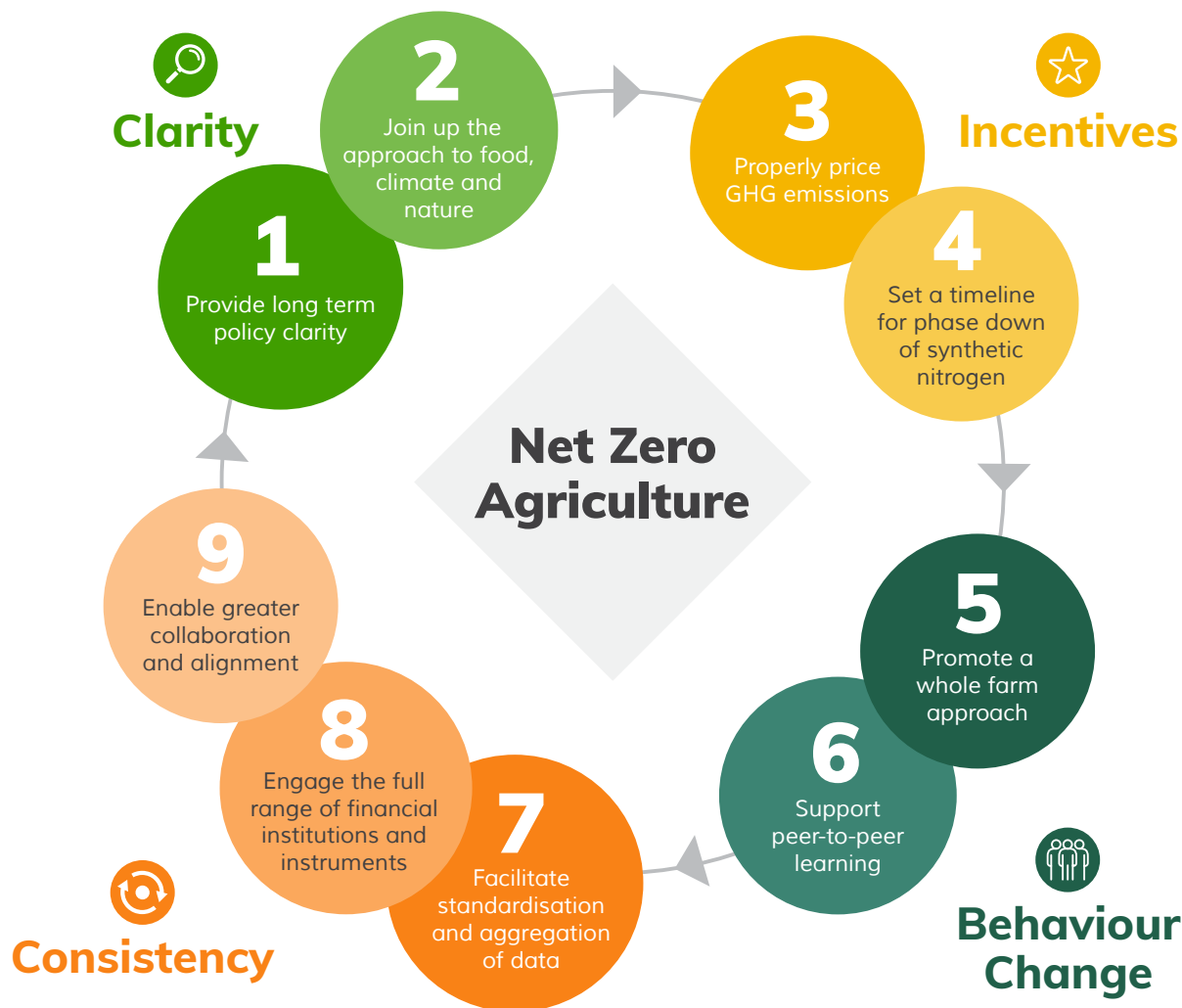
A step-by-step approach to implementing regenerative practices can help farms increase the likelihood of retaining profitability by providing early cost savings that can be used to support later stages of the transition. Success will usually depend on farmers having access to high-quality, independent agronomic advice.⁴⁸

47 Helping farmers shift to regenerative agriculture - Bain & Company, 2021

48 Regenerating Europe's Soils: Making the economics work - Systemiq & Soil Capital, 2019

Guiding Principles for getting to net zero

The Bankers for Net Zero Agriculture Working Group identified nine guiding principles that should guide policy around UK agriculture's transition to net zero.



1

Farmers need certainty and clarity about the long-term direction of policy. Insofar as possible, Government policy in this area should be based on cross-party consensus to avoid the risk of changes in direction driven by the political cycle. This is essential in order to give farmers the confidence to invest in transitioning to radically new ways of producing food and running their businesses. The Land Use framework, which the Skidmore Review has called on the Government to deliver as soon as possible, and by mid-2023 at the latest, is a perfect opportunity to do this.

2

Take a joined-up approach to food production, climate and nature. Achieving net zero and restoring nature are two sides of the same coin and the approach taken by both Government and the private sector needs to reflect this. Prioritising one over the other is a false choice: failure to address both simultaneously will only increase the transition cost in the long run.

3

Ensure agriculture's GHG emissions are properly priced. Extending the UK Emissions Trading Scheme (ETS) to cover emissions from agriculture (or instituting a separate mechanism for pricing the sector's GHG emissions) would help create a clearer financial incentive for farmers to adopt low-emissions farming practices. This would support the target of having 75% of farmers in England engaged in 'low-carbon practices' by 2030, increasing to 85% in 2035, as set out in the UK's Net Zero Strategy.⁴⁹

Emissions pricing for agriculture must be accompanied by a carbon border adjustment mechanism (CBAM) to mitigate the risk of "carbon leakage" and to ensure that UK farmers adopting low-emissions and nature-positive farming practices do not find themselves undercut by competition from producers in countries with lower environmental standards. Establishing robust measurement, reporting and verification systems will be required and, to ensure a just transition, extending the UK ETS will need to be coupled with support for farmers who might otherwise struggle to transition.

4

Set a headline target that sends a strong message about the direction of travel. Agriculture needs an equivalent to the end date set for sales of petrol and diesel cars, which has sent an unequivocal message to the automotive sector about where it should be investing. For example, the UK Government could set out a timetable for phasing down synthetic nitrogen use, introducing a cap-and-trade scheme to incentivise farms to reduce consumption, and using ELMs to help farmers invest in emerging viable alternatives, such as biological solutions, as they make the transition.

5

Promote a whole farm approach. Without a whole farm approach and mechanisms to assure this such as whole farm plans, there is a risk of funding carbon and biodiversity gains on parcels of farmed land that are offset by harms on other parts of a farm, due to competing market drivers. To manage this risk, the Scottish and Welsh governments are both proposing whole farm plans as a precondition for accessing public funding. This is a principle that could be championed through private finance and carbon codes. As one example, Soil Association Exchange generates whole farm scores from data collected against a holistic set of climate, biodiversity and nutrient neutrality metrics aligned with Global Farm Metric.⁵⁰

6

Support peer-to-peer learning to spread knowledge about new farming practices, technologies, welfare standards, revenue models and finance options. Farmers learn best from other farmers, so knowledge sharing within the sector is critical for accelerating the transition. It should be made attractive for those who have been "early adopters" of lower-emissions or nature-positive farming practices to share their knowledge and experience with other farmers, helping de-risk the transition for the next wave of "fast followers".

7

Facilitate standardisation and aggregation of data collection, baselining and reporting. A consistent approach to measuring and reporting farms' climate and biodiversity impacts is essential. Agreed data standards will enable financial institutions to better measure and act on climate- and nature-related risks. They are also a necessary pre-condition for the development of a high-integrity approach to generating carbon and/or biodiversity credits. The Green Finance Institute will be providing specific recommendations in their Financing a Farming Transition report, including for the development of a centralised data hub, achieving public and private sector agreement on priority baseline data, funding a community of practice to develop and signpost aggregation models and the creation of an environmental markets framework that clearly defines rules in relation to issues such as insetting and additionality.

8

Engage the full range of financial institutions and instruments to finance farmers' transitions to net zero. Along with policy clarity, the existence of financial support for farmers undergoing a regenerative transition can provide confidence and stimulate action. Together, banks, insurers and Community Development Finance Institutions (CDFIs) can be used alongside public finance to help farmers bridge the bottom of the J-curve and de-risk the switch to regenerative farming practices.

9

Enable greater collaboration and alignment between banks, retailers, farms and food processors. Agriculture's transition to net zero will happen much smoother and faster if there is alignment between what the industry's customers and finance providers are asking of it. A Government-convened pre-competitive forum bringing together farms, banks, food processors and retailers could help create cross-sector alignment both on the reporting requirements for agribusinesses and the sustainability standards farmers are being asked to meet. Government backing is important to give the process legitimacy and credibility. Such a forum will provide farmers with the clarity they need to align with food value chain and financial sector expectations around nature and the transition to net zero, protecting the future viability of their businesses and ongoing access to finance.

49 UK Net Zero Strategy - BEIS, 2021

50 Profitable & Sustainable Farming - Soil Association Exchange, 2023

Recommendations

RECOMMENDATION 1

Incentivise peer-to-peer learning and knowledge exchange with government grants in support of national climate and nature goals.

Farmer-to-farmer education can catalyse transformative actions from those who have yet to begin their net zero transition. As noted already, farmers learn best from other farmers and the knowledge and experience acquired by “early adopters” of lower-emission or nature-positive farming practices is a vital asset. Witnessing first-hand the benefits – financial and environmental – of regenerative or agroecological practices can minimise risk perception in farmers hesitant to implement such practices themselves.

Widescale peer-to-peer learning can be supported via the following actions:

- Create a CS Plus grant specifically for on-site farmer-to-farmer education. An opportunity available to all farmers in the UK, the grant would compensate the farm for any costs involved in hosting a site visit. The grant would benefit the environment by allowing farmers to learn and ask questions about sustainable farming practices, their benefits and how to manage impacts on yields etc. This would align with the goal of CS Plus: to reward farmers for collaborating with neighbouring farms and landowners to support positive climate and nature outcomes.⁵¹
- Increase funding to existing peer-to-peer learning resources. Organisations like the Nature Friendly Farming Network (NFFN)⁵² and Innovative Farmers⁵³, which are actively creating knowledge exchange opportunities to disseminate emerging best practices, should be supported to expand their work in this area.

Banks can support the success of this recommendation by:

- Forging connections between clients and signposting existing resources. If clients have provided their consent, relationship managers can connect farmers and land managers to organisations that encourage and facilitate knowledge sharing. All banks can and should actively provide information to their clients in the agriculture sector about existing resources and networks such as the NFFN and the Agreed Earth platform.⁵⁴
- Increasing awareness of international case studies and best practice. Banks with clients in multiple countries can facilitate knowledge sharing across borders on regenerative agriculture and low-carbon farming practices more generally. Examples of successful implementation of techniques such as zero tillage, agroforestry, and the use of cover crops, can help UK farmers learn from what’s worked elsewhere.

RECOMMENDATION 2

Create a pre-competitive forum for banks, farmers and key players in the food value chain to come together and align on GHG measurement, reporting and standards.

The initial purpose of the forum would be to create alignment amongst banks, farms, retailers, brands and food processors on measuring and reporting scope 3 emissions and climate- and nature-related risks. This would build on the groundwork laid by the Green Finance Institute’s Farming and Finance working group.⁵⁵ To give credibility and legitimacy to the process, Government should either directly convene a forum or give a clear mandate to a third party to do so. This mandate from Government is essential to avoid fragmentation.

This forum would be a flagship example of the kind of cross-industry collaboration on sustainability that the Competition and Markets Authority has recently indicated that it wants to enable.⁵⁶ It would also be a mechanism for delivering on the Skidmore Review’s recommendation that ‘by 2025, Government [should] ensure that 50% of UK-based food and drink businesses measure and report their scope 3 emissions against a government- and industry-agreed standard.’⁵⁷

Over time, the purpose of such a forum for collaboration could evolve to foster a harmonised approach to incentivising low-emission and nature-positive practices more generally, involving the alignment of food strategy to land use policy and environmental schemes. Imagine a world in which an agribusiness knew that by delivering particular outcomes it would not only

51 Environmental Land Management schemes: Details of actions and payments - 2023

52 Nature Friendly Farming Network

53 Innovative Farmers - Soil Association, 2023

54 Agreed Earth farm connections

55 Farming & Finance Working Group - Green Finance Institute, 2023

56 Climate change: The CMA’s open door - Mayer Brown, 2023

57 Mission Zero: Independent Review of Net Zero - Skidmore, 2023

be able to claim public money via ELMs, but also sell its produce at a premium and borrow money from a bank at a preferential rate. By aligning the criteria that all three parties – Government, food companies/retailers and banks – use to judge what “good” looks like, the incentive for farmers to act could be significantly strengthened without the need for additional public money. Existing certification standards such as the LEAF Marque⁵⁸ would provide a starting point for this alignment process, following the lead of Lidl UK⁵⁹ and Tesco⁶⁰ who have committed to sustainable sourcing assured via the LEAF Marque already.

RECOMMENDATION 3

Use public sector food procurement standards to create demand for low-emission farming in food supply chains.

The public sector spends approximately £2 billion a year on food, according to the Environment, Food and Rural Affairs Committee.⁶¹ That is enough to send a strong demand signal to the food supply chain – especially when combined with other drivers of demand as set out in the previous recommendation⁶² that Government ‘should work with existing certifiers – such as Food For Life⁶³ – to introduce a mandatory accreditation scheme for the food served in schools and hospitals.’ Defra has consulted on a 50% target for local and higher environmental standards (organic and LEAF Marque) and Labour has pledged its commitment to an equivalent target.⁶⁴ Effective implementation will require close collaboration across the supply chain and targeted government support for assurance and local processing infrastructure. In due course, we expect that the Government, irrespective of which Party is in power, will align all public procurement standards to the UK Green Taxonomy, but this could take some years to come into effect. In the meantime, an alternative pre-existing standard (such as the LEAF Marque) should be used.

RECOMMENDATION 4

Set out a clear plan and timeline for phasing down the use of fossil fuel-based agrichemicals.

Agriculture is responsible for 69% of the UK’s nitrous oxide (N₂O) emissions in the UK,⁶⁵ a greenhouse gas more than 250 times as potent as carbon dioxide.⁶⁶ The use of synthetic nitrogen for fertiliser is the main driver of these N₂O emissions. It also creates other environmental problems such as water quality deterioration caused by nitrate runoff, and damage to soil health. Cutting synthetic nitrogen use would also reduce the UK’s dependence on imported agrichemicals for food production and UK agriculture’s exposure to oscillations in global gas prices.

Phasing down synthetic nitrogen use in farming could be incentivised via a cap-and-trade system. This would complement the ELMs nutrient management payment schemes and enable a gradual transition, with the cost of applying synthetic nitrogen to fields rising over time in a relatively predictable way that allows farmers to plan. Additional research and engagement with industry are required to determine an ambitious yet feasible timeframe for phasing down synthetic nitrogen use. It must coincide with farms being able to readily and affordably access viable alternatives, such as biological solutions. This may require initial public support.

To mitigate the risk of unintended consequences, such as undermining the competitiveness of UK farmers, a border adjustment mechanism for food products, based on farming practices in countries of origin, must be introduced alongside the cap-and-trade system.⁶⁷

RECOMMENDATION 5

Clarify how public finance will be used to attract and complement private finance.

While not all farms will require new funding, it is undeniable that public finance plays a critical role in the net zero transition. Public loans and grants can and do incentivise farmers to act in support of national climate and nature restoration targets while helping to attract further finance from the private sector. However, there is a lack of knowledge amongst the farming community as to the different sources of financial support and how they can be stacked and blended to propel the transition to a net zero, nature-positive, future.

A comprehensive guide to transition finance that includes all available public schemes and providers, and details on how

58 LEAF Marque

59 Lidl gives green light to LEAF Marque on UK fresh produce - Lidl, 2022

60 Tesco transforms environmental standards for growers with adoption of global LEAF Marque Standard - LEAF, 2021

61 Public Sector Procurement of Food - House of Commons Environment, Food and Rural Affairs Committee, 2021

62 National Food Strategy - 2021

63 Food for Life - 2023

64 Labour to pledge half of all public sector food to be local and sustainable - The Independent, 2023

65 Agri-climate report 2022 - Defra

66 The Zero Carbon Commission - 2020

67 The Zero Carbon Commission - 2020

they can be used optimally would help farms go further, faster.

This guide can be supplemented by the following actions:

- **Support the British Business Bank (BBB) to deliver more finance for the net zero transition by enhancing availability of emissions (and other environmental) data.** The BBB already has the remit to help small businesses access finance to transition to net zero. For borrowers to prove that BBB finance is 'additional' and could not have been obtained from alternative sources, and that it has had an impact on reducing emissions, adequate data is required. This is why implementing the recommendations of the Green Finance Institute's 'Financing a Farming' Transition report; encouraging the UK Infrastructure Bank (UKIB) to invest in and scale natural capital markets;⁶⁸ and delivering Perseus, which exists to help automate GHG reporting for SMEs' electricity usage,⁶⁹ are urgent priorities.
- **Ensure existing equity funding for green agriculture technologies is clearly signposted.** This includes promoting greater awareness of schemes such as the Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS). This is something banks can also do for their clients through established communication channels.
- **Boost the formation of CDFIs to fill finance gaps in regenerative agriculture.** CDFIs can specialise in the social, environmental and economic needs of a given community and fill finance gaps left by other types of institutions. Regenerative farming expertise focused on filling finance gaps experienced in family succession, start-up and tenant farmer financing would help to improve access to finance. An appropriate referral network and investment in CDFI funds from the major banks can support success.

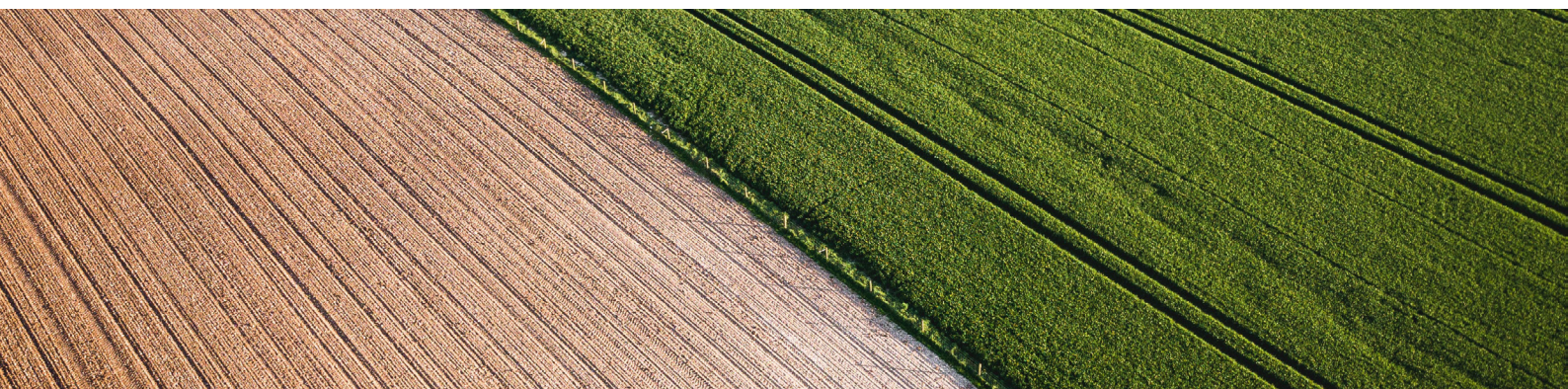
RECOMMENDATION 6

Adapt landowner and tenant agreements to enable tenants to make long-term investments in improving land, ensuring the value of such investments is fairly shared.

Tenant farmers are vital to UK agriculture and the delivery of environmental outcomes. They make up a third of farmers in England alone. However, as found in the Rock Review,⁷⁰ they are coming up against several significant barriers to developing a viable, long-term business in line with the climate and nature expectations of banks, policymakers and demand industries. We call on Government to implement in full the recommendations made in the Rock Review for a 'thriving agricultural tenanted sector'.

Banks can introduce green tripartite agreements, taking inspiration from existing green lease clauses in, for example, commercial property.⁷¹ The green lending agreements should contain clauses to promote cooperation between landowners and tenants over the long-term in relation to regenerative agriculture, energy usage and data sharing. These clauses would further incentivise the net zero transition for tenant farmers and reassure landowners that the decision to transition will benefit their land over the short and long term.

Our recommendations align with and draw on several other recent publications, most notably the Net Zero Review led by Chris Skidmore MP. Engagement with the Green Finance Institute enabled complementarity between our recommendations and those within their upcoming Financing a Farming Transition report.



68 Our role in Natural Capital Markets - UKIB, 2022

69 Bankers for Net Zero (B4NZ) – 'Perseus' - Icebreaker One, 2023

70 The Rock Review: Working together for a thriving agricultural tenanted sector - Defra, 2022

71 Green Lease Clauses - The Chancery Lane Project, 2023



Conclusion

Regenerative agriculture, agroecology and nature-friendly farming – essential in order to ensure UK food production – are at risk of becoming buzzwords: all talk and little action.

This briefing has identified a set of actionable recommendations to minimise this risk and drive real progress in transitioning agriculture to net zero within the UK. The need for a collaborative approach from banks, governments, farmers, retailers and the entire food supply chain is clear. Without immediate action, the long-term sustainability of UK food production is at risk.

Fortunately, there is growing awareness across government, industry and civil society of the significance of climate- and nature-positive agriculture. A number of farmers have implemented new practices and banks and retailers have made public net zero commitments and are engaging with their supply chains and customers.

The foundation of a successful net-zero transition rests on changes in current UK agriculture practices. Policymakers can stimulate these changes and trigger a cascade of action from banks, farmers and the food value chain by updating regulation, which will lead to an increase in knowledge sharing and finance flowing to the sector.

This briefing puts forward six recommendations to kickstart this journey: the provision of government grants to incentivise peer-to-peer learning opportunities; the creation of a pre-competitive forum for banks and members of the food value chain; updating public sector food procurement standards; the development of a plan to phase down the use of fossil fuel-based agrichemicals; clarification of how public finance for net zero agriculture will complement private finance; and the adaptation of landowner and tenant agreements to enable long-term investment to improve farmland quality.

With the correct strategy, the UK can get ahead in the areas of innovation, productive farming and net zero agriculture. Strategic action provides policymakers with the opportunity to achieve success across several policy issues at once, ultimately securing access to healthy foods, protecting agricultural livelihoods and production, and restoring the UK's depleted natural capital.

We welcome progress in the shape of ELMs, the 25 Year Environment Plan and the Net Zero strategy. However, coordinated action is now needed between UK policymakers, banks and actors within the food value chain to ensure food security and support farmers and land managers in their efforts to safeguard the future of their businesses – and the stewardship of fertile and flourishing UK natural capital – for decades to come.

Who we are

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