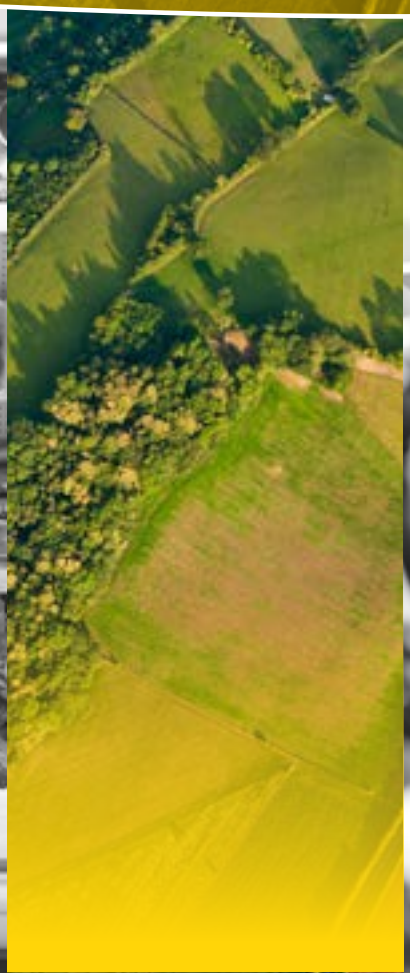
ENVIRONMENT AND CLIMATE CHANGE

OUR BLUEPRINTS FOR GROWTH



NFU

NFU CYMRU

NFU SUPPORTED BY NFU Mutual

Contents

Introduction 4

ENVIRONMENT 5

Land Use Framework 5

Environmental delivery support 6
Environmental Land Management schemes (ELMs) 6
Environmental markets 7

Nature, biodiversity and landscapes 8
Nature and biodiversity 8
Species reintroductions 9
Sustainable pollinator populations 10
Protected Landscapes and Sites 11
Trees and woodland 12

Managing water resources 12
Access to water 13
Resilience to flooding 14

Water and air quality 14
Improving water quality 15
Improving soil health 15
Improving air quality 16

Planning reform 17

CLIMATE CHANGE 18

International engagement 18
Linking national and international climate plans and action 18
Carbon Border Adjustment Mechanism (CBAM) 18

Climate adaptation 19

Climate mitigation 20
National Greenhouse Gas Inventory 20
Productivity programme to boost investment 21
Waste management and the circular economy 22
GHG audit support 22
Methane-suppressing feed products (MSFPs) 23
Additional accounting metrics 24

Renewables 25
Local grid network connections 25
Planning for small single on-farm wind turbines 25

Introduction

Farmers and growers have shaped and maintained our iconic countryside for generations. They are at the forefront of ensuring that our natural resources are protected and our environment thrives alongside sustainable, climate-friendly farm businesses.

With agriculture occupying more than 70% of the UK land area, farm businesses play an irreplaceable role in boosting the quality of our landscapes and our environment, but also delivering on challenges such as statutory Environment Act environmental targets and other commitments in the Environmental Improvement Plan.

But these targets and commitments need to be deliverable and complement equally ambitious plans for domestic food production and UK food security. Farm businesses need to be economically sustainable to allow them to grow and invest with confidence.

Farmers are also at the heart of the country's approach to both adapting to, and mitigating the impact of, climate change. The UK has a target of net zero by 2050 and the government has submitted a Nationally Determined Contribution target of an 81% reduction in greenhouse gas (GHG) emissions below 1990 levels by 2035. The changing climate is already affecting farm assets and productivity.

Reducing GHGs from agricultural production is complex. Farmers and growers are also working to provide nature-based solutions and engineered GHG removals, and to improve their resilience. Farm actions, such as increasing productivity, improving infrastructure or generating renewable energy, deliver efficiencies and responsiveness, but require cashflow and capital investment to accelerate progress.

This is not just a job for policymakers, but also for farmers, land managers, civil society groups and stakeholders across economic sectors, from the food industry to finance. Working together, they can support a just transition; and one that, in particular, recognises that while all farmed products have a place in a low carbon society, not all products will reach a similarly low carbon footprint.

Alongside this, measurement is a critical aspect of positive progress throughout the value chain – farms need to baseline, identify hotspots and plan action; supply chains need key Scope 3 data to report on their own net zero ambitions; and government, and the public, require validation of the efficacy of support schemes, as well as timely data to inform the National GHG Inventory.

Internationally, the UK government can use its climate leadership to elevate the voice of the farmer and ensure that the agricultural sector is included in the setting of targets and roadmaps.

This blueprint sets out the range of policy approaches that can support farmers and growers to work with others in meeting the challenges of climate change and in managing our environment so that it continues to deliver for future generations.

ENVIRONMENT

Land Use Framework

Many farmers feel overwhelmed by the plethora of competing demands on their land, on top of the inevitable pressure of climate change mitigation and adaptation.

The government has a key role to play in developing a better, more joined-up approach to our land use, but also in allowing farmers to assess their potential to deliver public goods, alongside the production of food, energy and fibre, with the right tools and advice.

Government has a crucial role to play in the development of a land use framework. We need a plan for a resilient, sustainable and productive agricultural sector that makes the best use of our most productive agricultural land and delivers what is good for consumers, good for the environment and good for British agriculture.

Agriculture occupies more than 70% of the UK land area and farmers play a pivotal role in maintaining and enhancing our dynamic landscapes for future generations.

Nevertheless, there are huge, sometimes competing, demands being made on land: for agriculture, for leisure and recreation, for improvements in biodiversity and protected landscapes, and for economic and residential development alongside national strategic infrastructure.

This is on top of the inevitable pressure on land from climate change mitigation and adaptation. Given the finite land area of the UK, and the importance of UK food security in volatile times, it is important that our countryside remains a multifunctional and dynamic space.

We need a better, more joined-up approach to our land use to deliver what we all want from our land.

Asks:

- A multifunctional land use strategy that manages the risk of significant competition between land use categories.

- A land use framework or strategy, and any policy and legislation arising from it, should be based on robust scientific evidence, making full use of expertise in both research and commercial sectors. It should not involve long-term or irreversible change to the productive capacity of farmland.

- Any framework strategy must be flexible to enable farmers to make informed business decisions on the potential of their land to deliver public goods alongside the production of food, fibre and energy. A bottom-up approach such

as ‘land capability mapping tools’ should be preferred over a top-down rigid approach to land use planning.

- Relevant legislation and policy development, especially planning policy and guidance, needs to facilitate agricultural modernisation and productivity growth, balancing the demands with the delivery of public goods for biodiversity, amenity, culture and landscape.

Environmental delivery support

ELMs is the main policy mechanism for government to achieve legally binding environmental targets. At the same time, the government has been clear that we cannot rely on public funding alone to deliver on its environmental ambitions, including its environmental targets.

The way that the environment and land use is valued is changing, and through public and private investment new markets are starting to be developed.

Environmental Land Management schemes (ELMs)

For ELMs to be a success it needs to be accessible to as many farmers as possible, provide a genuine financial incentive to deliver public goods, and complement farmers’ role as food producers.

The NFU’s modelling work has demonstrated that a budget of £2.7 billion a year is required to meet the government’s legislated environmental goals and help with challenges faced by the industry.

To ensure ELMs delivers both for the environment and our food security, an impact assessment is needed to ensure that environmental actions under ELMs do not reduce or displace food production.

The full details of the ELM schemes is not yet available, creating uncertainty and preventing businesses from planning ahead. The government must expediate the roll out of the full ELMs offer.

Arrangements need to be put in place to support those already in agri-environment schemes to access ELMs, or at least not be disadvantaged because they are already delivering public goods.

Both the government’s Environmental Improvement Plan and Net Zero Strategy rely on strong farmer engagement in ELMs to deliver their aims.

Without all the new environmental land management schemes being ready and offering the right incentives for participation, a lot of on-farm environmental work cannot begin. The Sustainable Farm Incentive, a key aspect of ELMs, must appeal to the vast majority of farmers, from uplands areas to tenants, securing high levels of uptake as part of viable farm businesses.

Asks:

- To meet the government's environmental ambitions there needs to be a budget of £2.7 billion per annum.

- An impact assessment of the government's agricultural transition plans should be undertaken to examine the impact on food production and business viability for all farming sectors.

- Defra needs to ensure all the environmental land management schemes are simple for farmers to access and deliver, and that the resources are in place to successfully deliver them.

- Defra must ensure a much higher degree of transparency as they develop policies and schemes under the Agricultural Transition Plan, including predictable timelines, clear evidence pathway, regular monitoring and reporting and a disciplined consultation structure that is regularly reviewed against its key performance targets.

Environmental markets

Environmental markets operate on the principle that natural resources and ecosystem services should have economic worth.

This introduces the prospect of financial incentives for land managers who can protect or enhance nature in a way that delivers benefits to society or private businesses.

For farmers, this could allow them to receive payment for environmental benefits alongside their core agricultural enterprise, for instance delivering water management projects, biodiversity or carbon storage.

These markets could play an important role in helping with agriculture's ambition to achieve net zero as well as providing businesses with a valuable new source of diversified income, but there are a number of barriers to farmers' involvement.

These markets are in the very early stages of development and many uncertainties remain around how to ensure their integrity, fairness and compatibility with other farm income streams, as well as the implications for the broader farm business structure.

Asks:

- The government should support the NFU's five key principles to ensure that emerging markets are attractive for farmers and growers to engage in with confidence over the long-term:
    - Environmental markets must work alongside the domestic production of food, energy and fibre.
    - Public policy and government initiatives must support the development of private markets.
    - Environmental markets require clear rules and standards to allow farmers and buyers to participate confidently.
    - Markets should be accessible across a range of farm sizes, tenures and business structures.
    - Farmers must be rewarded fairly for the delivery of environmental goods.

- A 'green taxonomy' aimed at promoting market integrity, avoiding greenwashing and mobilising sustainable finance to businesses throughout the economy, with the aim to align with international standards to facilitate cross-border investments and acceptance.

Nature, biodiversity & landscapes

The government is placing a significant emphasis on the delivery of ambitious Environment Act targets for nature and trees, and commitments including Local Nature Recovery Strategies (LNRS), Biodiversity Net Gain (BNG), Protected Site Strategies and Species Conservation Strategies, all of which help to deliver the targets.

These policies all need land to deliver and, given most of this will be farmland, farmers will play a key role in contributing to these ambitions.

The work done by farmers is what gives our countryside its distinctive appearance: full of productive, working landscapes that are dynamic and constantly changing. These landscapes have not only been created by farmers but continue to be maintained by farming to deliver public goods alongside the production of food, energy and fibre.

Nature and biodiversity

Policies for nature must recognise the critical role farmers play in delivering positive outcomes alongside the need for farm businesses to be sustainable and economically viable. Otherwise, there is a risk that the targets will fail to be achieved, alongside unintended consequences for farms and food production.

As a key policy delivery mechanism for the government's nature ambitions, the Environmental Land Management schemes will help enable these policies. It is vital,

therefore, that ELMs are accessible and work for farmers and for food production as well as the environment.

Ask:

- Farmers must be engaged in the development of nature and biodiversity policies to ensure they are deliverable, work alongside other land uses including food production, and do not limit or add unnecessary burdens to farm businesses, which must remain economically viable operations.

Species reintroductions

The government is continuing to explore the use of species reintroductions and conservation translocation of native species to improve biodiversity. A species reintroduction is the return of a plant, animal, or fungi to an area from which it has been lost, to re-establish a new population of the species within its natural range.

Some reintroductions may be beneficial, while others may cause adverse impacts, depending on the species and individual reintroduction. The NFU is primarily concerned about those species that present a risk of negatively impacting the countryside, farm businesses, and food production.

To address these concerns, the NFU would like to see government develop and follow a clear process for managing existing and future species reintroductions, to strengthen the requirements for species reintroduction projects and, if needed, to provide support including management options and compensation for those impacted by a reintroduction.

Ensuring a rigorous government process is in place for species reintroductions will help maximise the success of any species reintroduction while also ensuring it is not negatively impacting the countryside, farm businesses, and food production.

Asks:

- Where a species reintroduction has potential to impact on farm businesses and food production, government must:
    - take stronger action in addressing illegal species reintroductions;
    - strengthen the reintroduction code and guidance requirements;
    - develop and consult on a species-specific strategy which outlines the longer-term vision for that species; and
    - enable farmers and landowners to have access to funding and management options to mitigate and manage any potential impacts, which should be provided by the reintroduction project.

Sustainable pollinator populations

Insect pollinators are important for crop pollination and the pollination of wild plants and habitats within the wider countryside, much of which falls under the management of farmers and growers.

Pollinator-friendly activity on farm can also benefit other beneficial arthropods, which can make important contributions to crop production, such as pest control.

Actions to protect and increase pollinators on farmland need to be underpinned by evidence and deliver measurable benefits for pollinators and beneficials.

Poor evidence or a lack of knowledge about actions is likely to result in them being viewed by farmers as too high risk to undertake. There is significant opportunity to positively engage farming to help protect, increase and achieve sustainable populations of pollinators and beneficials.

There are several drivers of changes in pollinators populations. In order to engage farmers, government should recognise the importance of historic and recent conservation work and agri-environmental management, which the evidence shows has slowed declines in pollinator biodiversity.

While farmers recognise there is more to be done, overlooking success and improvement risks demoralising farmers and discouraging them from adopting the positive actions needed to promote further gains.

Asks:

- There should be national pollinator strategies and action plans that support evidence-based actions farmers can take to benefit pollinators and other beneficial arthropods.

- Continued funding of the world-leading UK Pollinator Monitoring Scheme, to provide a long-term dataset on pollinator abundance, diversity and distribution.

- Develop simple tools that enable farmers to monitor pollinators and other beneficial arthropods on farm.

- Actions under SFI and other schemes that support populations of pollinators and beneficial arthropods and the increased uptake of Integrated Pest Management.

Protected Landscapes and Sites

The work done by farmers is what gives our countryside its distinctive appearance: full of productive, working landscapes that are dynamic and constantly changing. These landscapes have not only been created by farmers but continue to be maintained by farming.

Uplands areas are often recognised for their iconic landscapes. These landscapes have been created and are maintained by farming and to keep them we need to have viable farm businesses in these areas.

Protected Landscapes include National Parks and National Landscapes [AONBs], protected sites include Sites of Special Scientific Interest (SSSIs). Protected Landscapes cover 26% of the country (over three million hectares) and include 50% of England's SSSIs. Protected sites are areas legally protected to conserve wildlife (species and habitats), landforms and/or geological interest.

Protections can add additional pressures and burdens on those farming in these areas, such as prescriptive management requirements, consents to undertake certain actions, and limitations on farm developments through planning.

Policies to protect landscapes or sites need to consider the economic viability and cultural and social importance of working farm businesses in these areas.

Engaging, supporting and enabling farm businesses managing protected sites and landscapes will help ensure that they can remain economically viable businesses which sustainably produce food and care for the environment. This will help the government to meet its Environment Act environmental targets and wider ambitions for protected sites and landscapes.

Asks:

- Government to recognise the importance of supporting farms in protected areas to enable them to remain economically viable businesses which produce food and care for the environment.

- Clarification from government on its ambitions for protected sites and landscapes and how these sit alongside food production.

- Government must engage and consult with the farming community in the setting of each landscape's non-statutory contribution to the Environment Act environmental targets, any new designation decisions, the management of protected areas and the delivery of 30by30.

- Greater recognition from government for agriculture and food production in the planning system which enables, rather than obstructs, farm business development in protected areas.

Trees and woodland

The Environment Act tree target committed to increase tree canopy and woodland cover from 14.5% to 16.5% in England by 2050. This includes trees in fields (including agroforestry), hedgerow trees and orchards.

Farmers will play a vital role in helping the government achieve this target. Incentives, such as ELMs will be an important funding source for tree planting and management, but delivery of the scheme, addressing barriers to uptake such as permanency, and further clarity in how the tax regime will operate are key.

Supporting and enabling farm businesses to manage existing trees, and planting more trees in the right places, will help famers to continue to produce food while also delivering the government's environmental targets.

Asks:

- Government must continue to develop and improve tree and woodland funding to create a flexible and simple offer which is accessible to all land managers. This should include more support for the management of existing smaller farm woodlands, trees with ash die back and deer.

- Clarification from government of how the tree planting target will be delivered, and how this target sits alongside other land uses including food production.

- Ensure a smooth transition of tree and woodland funding into ELMs.

- Government must review the permanency element to tree planting, especially for agroforestry and short rotation forestry.

- Guidance and clarification from government on how the tax regime will operate for different tree planting scenarios.

Managing water resources

As recent experience has shown, agriculture is particularly vulnerable to climate change and severe weather events.

Incidents of flooding followed by periods of drought are becoming increasingly commonplace and, with experts predicting longer and more severe droughts interspersed with more frequent intense rainfall events, it is vital we act now to safeguard our nation's food security, environment and livelihoods.

Access to water

Our ability to feed a growing population relies on access to a secure water supply to grow healthy crops and maintain animal health and welfare. But this is being threatened by growing competition for water, severe weather events, and ageing and inadequate infrastructure.

With the global population set to increase to over ten billion by 2050, there will be significant and increasing competition for water resources.

If farmers and growers in the UK are to rise to the challenge of growing more food like fruit and vegetables so we can reduce the amount we import from more water scarce countries, they will need secure access to a share of water supplies.

Farmers use less than 2% of the total water abstracted in the UK, but in the drier parts of the country many farmers rely on rivers and boreholes for water, especially at times of the year when water resources are under greatest pressure.

It is crucial that government demonstrates leadership in developing a framework for managing water. Security of supply and significant investment in on farm water infrastructure will enable farmers to grow more fresh fruit, vegetables, or other crops, and help build resilience into the farming sector.

The framework should recognise water for food production and water for animal welfare as an 'essential water need'.

Asks:

- Access to water for livestock and crop production in times of shortages to be secured through planning policies that support on-farm water storage, investment in water-use efficiency on farm, and innovation in more water-efficient crops and farming systems.

- The value of access to water to be recognised in any future food strategy.

- Government to provide support for agricultural water resource planning, to ensure fair access to water alongside public water supply and other sectors in regional water resource planning groups.

- The Environment Agency to commit to timely communication and engagement with abstraction licence holders as they pursue abstraction reform programmes, and to demonstrate a transparent and fair process for any changes proposed.

Resilience to flooding

Flooding can be devastating to a farm business. Flooded land is unproductive land, and it can remain unproductive for years afterwards.

The pressures faced by farmers and growers in managing 'too much' water are likely to become so great that they will not always be solvable at the farm level.

Rural communities are increasingly on the frontline of extreme weather and the devastating impacts of flooding – 58% of grade one agricultural land, the most productive and versatile land, is situated in the floodplain and 9% is at high risk of coastal flooding. Without insurance cover for their losses, farming businesses are being put under increased financial pressures after each flood event.

We need a system that recognises the value of protecting agricultural land and the benefits it provides, and that considers the impacts to rural businesses, to critical infrastructure, to food security, and to the environment, when rural areas are flooded.

Asks:

- An approach to flood risk management that recognises the importance of maintaining existing assets and systems which, if in better condition, could better accommodate rainfall events or allow for swifter recovery from flooding.

- Removal of the artificial distinction between capital and maintenance budgets to allow unspent capital to help cover the Environment Agency's continuing maintenance budget deficit.

- Any outcomes of the review of the way flood defence funding is allocated need to recognise the value of rural communities and ensure this is adequately considered when delivering flood protection. The recent Public Accounts Committee flood defence inquiry acknowledged that rural areas are disadvantaged when it comes to accessing funding, leaving them at higher risk than urban communities.

- A fair payment for flood storage as a public good that farmers deliver, with agreements put in place that allow them to plan and ensure recovery procedures are in place.

Water and air quality

Good water and air quality is more important to the public than ever before. Agriculture has a part to play in achieving this, together with action on water companies and pollution from urban sources.

In particular, the government has challenging targets for reducing nutrient and sediment losses from agriculture, improving air quality under the Environment Act, and overarching targets on water quality under the Water Framework Directive regulations.

The government also has ambitious targets for reducing ammonia emissions, as well as related targets around sensitive habitats and particulate matter. Good nutrient management will be key to making improvements.

Good soil health is key to the NFU's aspirations for agriculture to achieve net zero, reducing our impact on water quality, and in developing a more integrated approach to water management alongside producing healthy food.

Improving water quality

Farmers want to play their part in improving water quality but cannot do it alone.

We need enabling regulatory and planning frameworks and incentives which drive water quality improvements alongside food production, particularly in high-profile catchments with the greatest challenges. We also need committed support from retailers and water companies.

Given the tendency for regulation to add cost to farms which cannot be recovered through the supply chain, water quality rules must be low-cost and work alongside food production. Sufficient incentives, through both payments and grants, should be the primary mechanism for affecting change.

Asks:

- Affordable, proportionate, and outcome-focused regulation, including rules which facilitate "betterment" in key infrastructure such as slurry stores near protected sites, enforced using an advice-led approach.

- Incentives, including payments through the SFI and grant schemes, set at a sufficient level to drive widespread uptake and help with securing more finance from the private sector.

- Greater incentives in catchments where farmers are expected to do more, with a focus on supporting any plan for the Wye and farmer-led action in Poole Harbour.

Improving soil health

Healthy soils are vital for food production and sustaining landscapes, providing essential ecosystem services like carbon sequestration and biodiversity support. Soils are also the planet's second-largest carbon store, with UK soils holding about ten billion tonnes of carbon.

But soils are increasingly under pressure from challenges such as climate change, erosion, and organic matter loss, which threaten food security and environmental sustainability.

A coordinated industry approach to improving soil health is needed that underpins our productive farming systems as well as delivering benefits such as carbon storage and resilience to climate change.

Asks:

- Investment in soil research and innovation to better understand how management practices impact soil health, with practical application at the farm level.

- Development of reliable and accessible measurement methods is essential for farmers to baseline the current situation against future progress. A free nationwide comprehensive soil-testing programme would accelerate uptake and encourage farmers and growers to incorporate testing in business-as-usual management.

- Help to facilitate the voluntary carbon offset market by establishing fair rules and incentives for agriculture.

- Greater flexibility in tenancy agreements to support land occupied by tenants, which will encourage investment in soil health.

- Sustainable peatland management should prioritise farmers by aligning water management and carbon reduction alongside food production. Policies should incentivise a balance between soil protection and food production and not be overly complex.

Improving air quality

Ammonia emissions can pose a risk to the environment and public health. Agriculture is responsible for the majority of these, but reducing emissions further will be challenging.

Animal manures are a major source of emissions, but they are also a valuable by-product of livestock farming, so measures should focus on manure management rather than reduction.

There is also a question around the potential for nationwide reductions of ammonia emissions to reduce particulate matter formation in urban areas for the benefit of human health. Interventions may need to be more targeted, addressing local environmental impacts and delivering on protected site commitments.

As farmers struggle to recover the costs of ammonia measures through the supply chain, industry-led approaches to reducing emissions, alongside the greater use of existing payment schemes to tackle the issue, should be pursued.

Asks:

- Dated regulatory commitments in the Clean Air Strategy 2019 should be reconsidered, recognising the ongoing challenges in affected sectors and the likely impact of these measures.

- Industry-led approaches to reducing ammonia emissions should be given a chance to affect change, specifically the use of an ammonia calculator as an alternative to permitting dairy and beef.

- ELM schemes, particularly the SFI, have largely ignored ammonia emissions and this should change, while grant schemes should continue to encourage the uptake of equipment like low emission spreaders.

Planning reform

If farm businesses are allowed to sustainably build the right buildings and infrastructure, in a way that is sympathetic to the local environment, they can reduce the impacts of production including greenhouse gas emissions. For example, new space-efficient glasshouses to produce more fruit and vegetables will boost the nation's food security.

Nevertheless, too often blanket environmental and other planning requirements can obstruct or prevent development. This leads to perverse outcomes when development would make a farm business more sustainable, reduce its environmental footprint, create jobs and promote green growth across the sector.

We outline further policy interventions on planning in our Investment and Innovation blueprint, but the following asks have clear benefits for our environmental ambitions.

Asks:

- Support in national and local planning policy for agricultural infrastructure such as farm tracks, slurry stores, and reservoirs. These on-farm assets should be given weight in the planning balance, and their intrinsic value and necessity stated.

- Clear national guidance for local authorities and a streamlined process for water and air management, infrastructure productivity improvements, energy efficiency and renewable energy.

CLIMATE CHANGE

International engagement

Government can use its climate leadership to elevate the voice of the farmer and ensure that the agriculture sector is included in the setting of targets and roadmaps.

Agriculture is an important part of the answer to climate change alongside producing quality food. It needs support to ensure a level playing field to accelerate progress domestically.

Linking national and international climate plans and action

The agriculture sector was not involved in the development of earlier Nationally Determined Contributions (NDCs) under the UN Framework Convention on Climate Change (UNFCCC).

Successful mitigation in agriculture requires a nuanced bottom-up practical approach, in addition to the current top-down perspective, to engage and empower farmers.

Ask:

- Ensure farmers' organisations are involved in the development of the detailed plans for agriculture to meet the UK's NDC target.

Carbon Border Adjustment Mechanism (CBAM)

The government's Carbon Border Adjustment Mechanism risks downstream leakage and competitiveness impacts on the UK agriculture sector, notably through the inclusion of fertiliser in the proposals.

There are significant challenges in applying reliable carbon prices on imported competing agricultural products to remedy downstream leakage which will result from a CBAM on fertilisers.

The government must provide mitigating support to the domestic agricultural sector by building on a range of existing policy interventions as part of the Agricultural Transition Plan and in its approach to international trade.

This will ensure domestic food producers are able to compete against imports and adapt to delivering within a low carbon economy. In particular, greater transparency will allow farmers to react to fertiliser market signals.

Through improved skills and knowledge, there is a huge opportunity for industry and government to work together to drive nutrient use efficiency.

Mixed farming systems in the UK provide a valuable source of crop nutrients with broader by-product supplies. Better utilisation of organic manures will capitalise fully on the agri-food circular economy.

Asks:

- Government to examine and set out what steps are needed to significantly improve fertiliser market transparency.

- Target research and independently assess new alternative products, as well as grow industry precision knowledge to become world leading.

- Investment in infrastructure (e.g. storage of organic materials) and the legal framework to encourage recycling of organic nutrients, with support for practical grant and loan schemes, or more generous tax allowances, to drive investment.

- An approach to imports that means imported products meet the same core product and production standards as those produced in the UK.

- Productivity grant funding opportunities must be supported over the long-term. Current grant funding is tightly time-limited with significant uncertainty on support beyond 2024, therefore limiting the potential for decarbonisation.

Climate adaptation

It is critical to recognise the effects of climate change on the future ability to produce food, as well as on health and livelihoods. Climate adaptation must be given the policy focus and support to avert far higher future costs.

The changing climate has reduced global agricultural Total Factor Productivity by about 21% since 1961, a slowdown that is equivalent to losing the last seven years of productivity growth.

Global agriculture has grown more vulnerable to ongoing climate change. The UK's Climate Change Committee was right to say that 'we are already living with climate change'.

In addition, climate change is already affecting the physical and mental health of the farming/rural community. However, the good news is that investment in adaptation works.

Asks:

- Set out a clear plan as we prepare for the next Climate Change Risks Assessment and National Adaptation Programme, which assesses and meets the scale and wide-ranging nature of the challenges ahead.

- Assess the contribution which the current ATP/ELMs and other government policies make to improving the climate resilience of farm businesses, especially as public finance is an important enabler of adaptation.

- Ensure political commitment on adaptation and follow-through across all levels of government.

Climate mitigation

Government support to reduce greenhouse gas emissions needs to be swift and at scale. So far, the actions within SFI, and support within the broader Farming and Countryside Programme, do not sufficiently tackle climate mitigation.

Progress made by farmers and growers needs to be duly recognised whether the GHG emissions reduction happens on farm or benefits the wider economy. Data is essential to optimise GHG emissions reductions on farm systems.

To maximise opportunities and be future proof, data needs to be compatible with existing schemes and new schemes such as the Livestock Information Programme.

National Greenhouse Gas Inventory

The Land Use, Land Use Change and Forestry (LULUCF) inventory does not adequately reflect progress being made, such as with on-farm trees, hedgerows and soils.

Likewise, the contribution of farmers to decarbonising other sectors through export of renewable energy and fuels, bio-based carbon storage, and other greenhouse gas removals is not presently attributed to the agricultural sector.

Strengthening confidence in farmers and growers that the full range of their low-carbon investments are recognised will encourage take-up of mitigation measures, while a greater appreciation of agriculture's contribution to the wider economy will support a more balanced perception of the sector throughout the supply chain and by consumers.

Ask:

- Recognition across all relevant parts of the national inventory of the full breadth of farmer and grower contributions to reducing greenhouse gas emissions

Productivity programme to boost investment

Improving resource use efficiency will enable farmers to produce the same quantity of food, or more, with fewer inputs and in smarter ways.

Productivity improvements not only support the agricultural sector by encouraging practices that protect soil health, biodiversity, and ecosystems. They can drive resilience and confidence as well as develop and mobilise the technical solutions that will underpin global competitiveness in UK agriculture.

Over 90% of our farmer and grower members are unincorporated, small-to-medium sized enterprises (SMEs), i.e. sole traders or partnerships, so they do not enjoy many of the tax incentives available to limited companies.

We want to stimulate more investment under the Structures and Buildings Allowance as well as for plant and machinery. A substantial fraction of the capital investment needs of farm businesses are in the former category, e.g. upgraded buildings (dairy parlours, poultry sheds) which are a pre-requisite for more efficient plant and machinery. Optimising feed, fertiliser, fuel, and energy usage, alongside improving animal health and welfare, will cut GHG emissions, alongside boosting economic growth and revitalising rural economies.

Tax allowances would remove much of the administrative burden of proving that specific items or makes/models of equipment are recognised by the Treasury.

Asks:

- An ambitious and long-lasting government productivity programme to boost investment, R&D, knowledge exchange, training and advice, collaboration and incentives to adopt technical advances.

- SFI actions that target GHG reduction and sequestration, alongside building business resilience and productivity with improved infrastructure (both on farm and national infrastructure), and greater understanding of consistent farm level data.

- Tax allowances to encourage a wide range of investments, going beyond the existing Agricultural Investment Allowance. Including, for instance, low carbon machinery, plant and equipment, new or refurbished buildings and infrastructure, fuel/energy systems, and equipment to reduce methane or ammonia emissions and for rainwater harvesting.

- Expand the current productivity elements of the Farming Investment Fund, such as the Improving Productivity, Adding Value, Water Management, Slurry Infrastructure, and Animal Health and Welfare support grants, as well as the Farming Equipment and Technology Fund.

Waste management and the circular economy

The transition to a circular economy in agriculture is crucial for reducing waste, improving resource efficiency, and enhancing environmental sustainability.

Waste streams like food waste and plastics pose challenges for farmers, while bioresources from manures, digestate, compost and biosolids offer solutions for improving soil health, reducing reliance on synthetic inputs and minimising GHG emissions.

Additionally, fly-tipping remains a costly and damaging issue for rural areas, impacting both the environment and local economies. Tackling this problem is essential to protect agricultural land and promote responsible waste management practices.

Asks:

- Flexible regulation on animal manures which balances the benefits of use with any risks to the environment, plus incentives which enable farmers to store, apply, and where necessary, export manures with minimal emissions.

- A long-term, consistent strategic commitment to the anaerobic digestion sector, including access to the required infrastructure.

- A single reporting mechanism for fly-tipping so farmers and land managers only need to report an incident once, along with additional guidance given to those with prosecution powers so they can deliver more effective punishments.

- Retailers and food supply chain stakeholders should adopt flexible specifications and implement risk-sharing mechanisms to reduce food waste and manage financial impacts.

- Collaboration across the supply chain to ensure that plastic packaging is made from single polymers and designed for easy recyclability, addressing barriers to effective recycling.

GHG audit support

Farmers and growers are uncertain of the economic returns from a GHG audit. The variability of results between different tools erodes confidence and the cost in time of completing an audit is a barrier.

A better understanding of the results and how to apply them is required to change farm practice.

Quantitative data flow from farming practices could inform the national inventory and national action plan. Defra will have enhanced capability to make timely decisions about changes to ELMs, a deficiency highlighted by the National Audit Office.

Upskilling farmers and growers to embed the audit process into normal business enables outcomes-based incentive structures from the market and government.

It will increase supply chain awareness of the varying potential for mitigation across agriculture, so that procurement decisions are based on a realistic range of emissions.

Asks:

- Government support for the development and uptake of GHG footprinting to better reflect the diversity of UK farming systems, capturing on-farm sources and sinks, and kickstarting the implementation of GHG reduction strategies.

- A time-limited national programme for every farm in England to access an SFI action to complete a GHG audit, providing farm business and product level estimates.

- Access to a qualified adviser to facilitate behaviour change through assisting with the quality of data inputs and explaining the outcomes of a GHG audit. The audit action could be used to access other SFI actions which reduce GHG emissions.

Methane-suppressing feed products (MSFPs)

There has been limited progress in reducing GHG emissions from agriculture since 2008. It is likely that by 2050 agriculture will be a third of the UK's emissions.

MSFPs were identified in the 2023 Carbon Budget Delivery Plan as potentially delivering reductions of 1.6 Mt CO2e per year by 2030. This is ten times greater than any other mitigation measure available in the short-term.

MSFPs like Bovaer are already registered for use in other countries and can deliver significant and demonstrable GHG mitigation in the dairy sector. This could also bring benefits in export markets.

Asks:

- FSA approval and an independent assessment of MSFP efficacy and impact on animal health and welfare, food safety and the wider environment.

- Explore incentives, alongside a range of other GHG emission-reducing techniques, such as genetics, efficiency improvements and new technologies.

- Government to provide effective advance communication to prepare industry and consumers for the introduction of MSFPs.

- Support for research into robust methods of MSFP delivery for grazing livestock, e.g. boluses, and into a range of alternative products.

Additional accounting metrics

It is important that GHG emissions are calculated as accurately as possible to help producers to understand and reduce emissions as much as possible.

GWP100 is the accepted metric for measuring GHGs, but is less accurate when measuring the temperature response of short-lived emissions such as methane and does not account for its removal from the atmosphere.

GWP* provides a measure of the behaviour of methane in the atmosphere and its net contribution to global warming to a greater degree of accuracy.

Government support is needed for farmers to access the capital investment they need to implement interventions to reduce methane and other GHGs.

The use of GWP* will affect how methane reductions are incentivised and valued both by the public and private markets.

Asks:

- A unified approach to dual accounting, with government and industry reporting on emissions from agriculture at the national scale using GWP100 and GWP*.

- Incorporate GWP* into on-farm GHG calculators, ensuring that individual producers are not disadvantaged for expanding when national herd/flock emissions remain unchanged or are decreasing due to uptake of new tools and technology.

- Consistent and simple messaging to consumers on the temperature impacts from methane and the biogenic carbon cycle, including finding a more suitable way for the carbon footprint of a food product to be measured.

- The impact of genetics and selective breeding on reducing methane emissions to be measured with GWP100 and GWP*.

- A joined-up approach to GHGs across government departments – for example, when looking at air quality under the Clean Air Strategy and GHG emissions reductions versus the future of ELMs.

Renewables

Investment in renewable energy generation alongside food production is an important source of diversification income that supports many farm businesses. The number of NFU members producing or using renewable energy (for on-farm utilisation, or for export) has grown to more than 40 per cent of all farmers and growers.

Local grid network connections

We want farmers to become more energy-independent (in farm buildings, processes and transport) using low-carbon electricity, building on current Defra capital grans support that enables increased uptake of rooftop solar.

Alongside the growing electrification of farm enterprises for production, food processing and storage (heating and cooling), there is increased farmer interest in the use of electric vehicles, including agricultural machinery.

Increased electrification of farmer and grower businesses will help to decarbonise UK agricultural production and reduce the carbon footprint of British farm products.

Gaining more control of energy input costs would help with the profitability of farm businesses.

Asks:

- Distribution Network Operators (DNOs), which own the local electricity power lines, should support a growing agricultural contribution to renewable energy generation by enabling faster, affordable access to rural electricity grid connections.

- Existing technical solutions to boost or make better use of existing grid capacity need to be recognised and encouraged through the DNO connection approval process. They include on-farm battery storage, export-limiting equipment (fast-acting reverse power relays; load diverters) and in some cases active network management delivered over the mobile network or broadband rather than through data cables.

Planning for small single on-farm wind turbines

Many farmers have invested in rooftop solar PV. But for year-round independent electricity generation a complementary single, small-medium wind turbine would be required to produce power during winter months and at night.

The administrative burden of making a full planning application, and the poor prospects of permission being granted under recent planning policy, mean that only a handful of on-farm turbines have been installed since 2015, while other sources of renewable energy such as solar and biogas have continued to grow.

The current permitted development right for small turbines limits tip height to 11.1 m and a rotor diameter suitable only for domestic energy needs. A significant increase in size is required to generate power for commercial on-site use.

In combination with rooftop solar PV and a storage battery, many farms would be able to meet the majority of their present and future on-site energy needs from low-carbon sources, including production, processing, storage and electric vehicle charging.

Utilising the remoteness of their location, farms can improve resilience to energy price shocks, supplement incomes, and support net zero objectives.

Asks:

- Introduction of permitted development right for a single small-scale wind turbine on farms.

- A suitable size to support on-farm self-sufficiency in electricity would specify a maximum tip height of 30 m and a swept area of 200 m2, i.e. about 16m rotor diameter and 50 kilowatts maximum power output. A precedent was set in 2022 when permitted development rights were revised for mobile phone masts of a similar size.

ENVIRONMENT AND CLIMATE CHANGE

National Farmers' Union, Agriculture House,
Stoneleigh Park, Warwickshire CV8 2TZ

Tel: 024 7685 8500

www.nfuonline.com

A MISSION FOR FARMING:
OUR BLUEPRINTS FOR GROWTH

Produced by:
NFU, AGRICULTURE HOUSE
STONELEIGH PARK, STONELEIGH, WARWICKSHIRE CV8 2TZ
February 2025

NFU SUPPORTED BY NFU Mutual