VISION FOR THE FUTURE OF FARMING

DOMESTIC AGRICULTURAL POLICY

Delivering for the Farmed Environment

FOREWORD

The agricultural sector manages some 70% of land in the country[1] producing high quality, safe and affordable food but also plays an integral part in protecting, maintaining and enhancing our countryside. The NFU strongly believes that competitive food production is not at odds with successfully managing the environment.

Over the past 30-40 years, farmers have carried out a huge amount of work to encourage wildlife, benefit the landscape, soil and water and reduce their impact on the climate. UK farmers are rightly proud of their efforts over that time, but in recent years we are beginning to see a downturn in uptake of agri-environment schemes, largely driven by changes to policy.

Brexit presents a once in a generation opportunity to put in place policies that work for farmers, the environment and consumers. We have the chance for innovative thinking and a new approach to the design of future environmental management schemes.

This report sets out the NFU's latest thinking on the future of agricultural policy for the environment, one of the three strands of the NFU's Domestic Agricultural Policy, once we leave the European Union. It builds on the Domestic Agriculture Policy Vision document published in early 2017 and comes ahead of government plans to publish an Agriculture Bill in Parliament.

We believe that a future environmental policy should consist of a mix of incentive schemes, including a farmed environment scheme, complemented by new market approaches, such as Payments for Ecosystem Services and industry-led action to improve environmental delivery. In addition, we see that science, research and innovation have an important role to help increase our resource efficiency and reduce our environmental impact.

This document provides a framework for continued consultation with members as well as being a useful guiding document for policy makers as they set about the task of drafting the government's future Agriculture Bill.

NFU VISION FOR A DOMESTIC AGRICULTURAL POLICY

Once we leave the EU we will have the opportunity to develop a new deal for British farming – one in which farm businesses are provided with the incentive, support and means to become more productive and resilient, and to better meet the expectations and needs of society at large.

To facilitate the development of a future agricultural policy, we are proposing a framework formed of three constituent parts:

- Productivity measures and business resilience
- Volatility mitigation measures and riskmanagement tools
- Environmental measures

Farm businesses should be able to draw down bespoke assistance from across a range of measures within each of these three cornerstones, potentially in different proportions depending on both individual and wider economic circumstances. Crucially these measures are not mutually exclusive; they all work together to enable farming to be competitive, profitable and progressive, and an integral part of a dynamic UK food supply chain.

Transitional Arrangements

The government has stated that it wants to deliver a smooth exit from the EU and that it wants to "avoid a disruptive cliff-edge", acknowledging the potential need for phasing in any new arrangements. The NFU believes it is crucial that transitional arrangements are agreed at an early stage to ensure continuity and certainty for farm businesses when we leave the EU.

In order to minimise disruption at the moment we leave the EU, we believe there should be a gradual transition from the current structure of farm support to a new agricultural policy over a period of years. Exactly how many will depend on a number of variables, including the future shape of the CAP and the support framework of farmers in the EU; the shape of future trade agreements with the EU and subsequently third countries; and other policy priorities of the UK government such as immigration and access to labour.

FARMING DELIVERING FOR THE ENVIRONMENT

Over many centuries farming has shaped the countryside we all now enjoy. 70% of the UK is managed by farmers and they are well placed to deliver the landscape and environmental benefits to our countryside.

Over the past 30-40 years, farmers have carried out a huge amount of work to encourage wildlife, the landscape, benefit soil and water and reduce their impact on the climate. During this time, there has been substantial engagement by farmers with voluntary environment schemes and projects such as the Campaign for the Farmed Environment and EU-Life. At its highest level, 70% of agricultural land was in agri-environmental stewardship.[2] Under agri-environment schemes in England, more than 30,000 km of hedgerows have been planted or restored, providing habitat and shelter for a range of wildlife, created around 37,000 km grass margins, and 2,600 km of stone walls actively managed as part the scheme.[3]

Farmers are improving resource efficiency producing more with less - fertiliser application rates have been reducing since the 1980s, yet crop yields have been maintained. New uses of resources, such as those in renewable energy production, have seen farmers invest with the support of policy.

Industry-led actions, with farmers working in partnership with regulators and environmental groups, have proven to deliver environmental improvements. In England, the Campaign for the Farmed Environment encourages farmers to protect soil and water whilst improving biodiversity, water and soil, alongside productive agriculture.

Farming has shaped our landscapes, creating varied fabrics across the uplands and lowlands and bringing value to local and rural economies, through recreation and tourism. Continued management of our landscapes by farmers through grazing, cropping and cultivations and management of boundaries, such as hedges and stonewalls, has implications for how the countryside can be enjoyed, but also how wildlife, water and soils can carry on being protected. The role of upland regions is underlined by the fact that 70% of the UK's drinking water is sourced from them[4], with 53% designated as SSSI.[5]

In future, the challenges will be broad and varied and environmental delivery will also have to do more to address flood management, air quality, health and well-being as well as landscape benefits, climate change mitigation, soil management, water resources and biodiversity.

Compared to the 1980's, 31% less nitrogen fertiliser and 55% less phosphate fertiliser is being applied in 2016.[6]

In 2014/15 there were 269,000 hectares managed voluntarily under Campaign for the Farmed Environment measures.[7]

Total Greenhouse gas emissions from agriculture have fallen by 17% since 1990.[8]

More than a 1/3 of all farmers have diversified into renewable energy, with solar PV, biomass heating and wind power remaining the most popular technologies.[9]

Farmers and growers own or host around 60% of UK solar power.[10]

ARCHITECTURE OF ENVIRONMENTAL MEASURES IN A NEW DOMESTIC AGRICULTURAL POLICY

Brexit offers the chance for innovative thinking on the future support for environmental land management. Future environmental policy should consist of a mix of incentive schemes, including a farmed environment scheme, complemented by new market approaches, such as Payments for Ecosystem Services and industry-led action to improve environmental delivery. In addition, we see that science, research and innovation have an important role to help increase our resource efficiency and reduce our environmental impact.

The environment will touch all elements of the Domestic Agricultural Policy, but there needs to be targeted funding to achieve environmental objectives.

In creating the policies to deliver this, we believe the following principles should be central to measures to support the farmed environment.

- Food production and environmental measures should not be considered as mutually exclusive and policy should be designed from this starting point. Optimal environmental outcomes are needed in a productive landscape but profitable farm businesses are also required to successfully deliver and sustain environmental benefits.
- Environment policy should seek to deliver measures that provide the double benefit of productivity gains that are also positive for the environment, for example investments that make more efficient use of our natural resources.
- Agricultural policies must be broad and holistic in outlook and design, backed by a robust science and evidence base. Farming can and should play a clearly defined role in striving for further improvements in landscape character, soil management, water quality, wildlife and air quality. The potential effects of climate change need to be planned for as part of our future environment policy and the role of farmers in mitigating climate change should be recognised.
- The unique environmental value of specific regions such as the uplands, commons and UK designated sites, e.g. Sites of Special Scientific Interest (SSSI), should be recognised. Policies should recognise the constraints faced by farming in these areas.
- The future policy should acknowledge that the environment can't be improved in every regard or in every location, with trade-offs meaning that achieving one environmental outcome may result in another being forgone. However, there should be recognition of the hierarchy of environmental priorities where environmental resources that are irreplaceable or of international significance, are more highly valued than those more common place.
- Early and proactive engagement with farmers to understand and incorporate their views, knowledge and ambitions.
- A supportive policy environment, in terms of a trading environment, planning rules, national infrastructure and financial incentives will help the industry build upon farming's successful environmental delivery.
- Earned recognition should feature in the design and implementation of regulation. Farmers that demonstrate that they go further through voluntary schemes, or those that present a low risk of infringing on rules, should have their efforts and achievements recognised.
- Many sectors of the economy contribute to the quality of the wider environment and farmers, while they have an important role in the countryside, are only part of the picture.

The backdrop to this paper is provided by the regulatory and trade framework. Our withdrawal from the EU provides an opportunity to review the regulatory environment under which farming operates, and to devise a regulatory regime that is fit for purpose, effectively supporting productive agriculture and trade in agri-food products with overseas markets, while protecting the environment and the public. This is not about lowering standards but about establishing policies and regulatory frameworks that are evidence-based and outcome-focused.

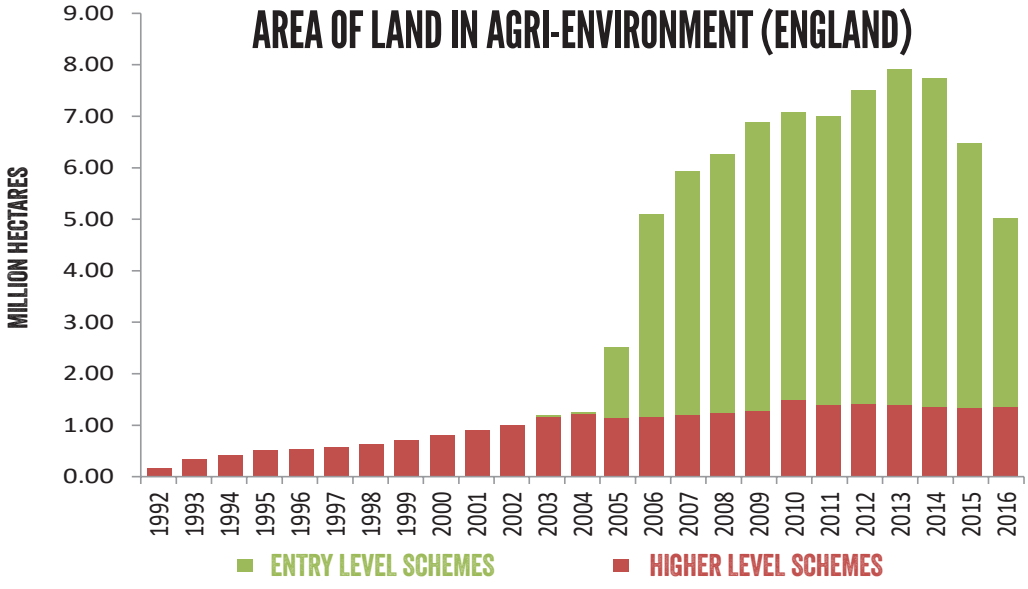
The EU Withdrawal Bill process must provide as much certainty to business as quickly as possible. Therefore the Bill must be fully transparent, properly scrutinised, include industry recommendations, avoid legal "blackholes" and seek improvement to legislation where possible.

Both immediately after Brexit and beyond, regulatory regimes implemented in the UK must ensure appropriate levels of regulatory equivalence with trading partners, with sufficient resources to achieve this, in order to maximise the potential and fairness of trade in British produce with the EU and globally.

A FUTURE FARMED ENVIRONMENT SCHEME

Agri-environment schemes have played an important role over the past 30 years, enabling farmers to create, enhance protect and maintain landscapes, biodiversity, water and soil and address challenges such as climate change as part of a productive landscape. They have largely been a great success, with high farmer buy-in until the most recent iterations and policy changes.

Successful schemes have seen landscape scale delivery achieved through high levels of uptake. This led to 70% of farmland covered by an environmental scheme. The characteristics of a successful scheme have included clear, straightforward implementation on farm, clarity on how the scheme contributes to the environmental objectives and actions that are complimentary to the wider farm business.



Source : Joint Nature Conservation Committee

The NFU believes that a future domestic policy should continue with the agri-environment approach with a farmed environment scheme. It should build upon the successes of the past, through seeking to deliver more for the variety of environments in every part of country, being voluntary and open to all farmers.

Farmers have a vital role in delivering a wide range of environmental benefits. Therefore the new farmed environment scheme should take a holistic approach to environmental objectives across the landscape. It should seek to deliver for water and air quality and landscape character. The scheme can deliver for wildlife, natural flood management, historic environment, soil management, climate change mitigation and adaptation, woodland, forestry and upland areas. Educational access provides important ways of engaging with the public and should remain a feature of the scheme.

This figure outlines the elements of a farmed environment scheme:

A first tier would be available across the country and for all farm types and sizes. Options in this tier would be straightforward to comply with, delivering for landscape, biodiversity and the wider environment. A second tier would seek to achieve more ambitious environmental outcomes, with necessary conditions to ensure the more complex environmental management to support the wider landscape, priority habitats and habitat creation. It can be tailored to local needs e.g the specific requirements for SSSIs. The second tier will require bespoke support to develop the best agreement.

Land management options should vary in length. They could be one, five, ten or twenty years in length. For example:

Length of agreement in years	Potential land management actions
1	Fallow land Cover and catch crops Overwintered stubble Field margins and buffer strips to slow water flow and retain soil erosion Hedge and wall maintenance and repair Ditch management Nutrient management Skylark plots
5	Pollen and nectar mix Winter bird feeding mix Low input grasslands Legume mix Protection of in field trees including ancient trees Historic environment
10	Moorland management Management of protected habitats e.g. SSSIs Habitat creation and management Scrub management Arable reversion Management of semi natural and species rich grasslands Creation and management of wet grassland
20	Woodland management Habitat creation

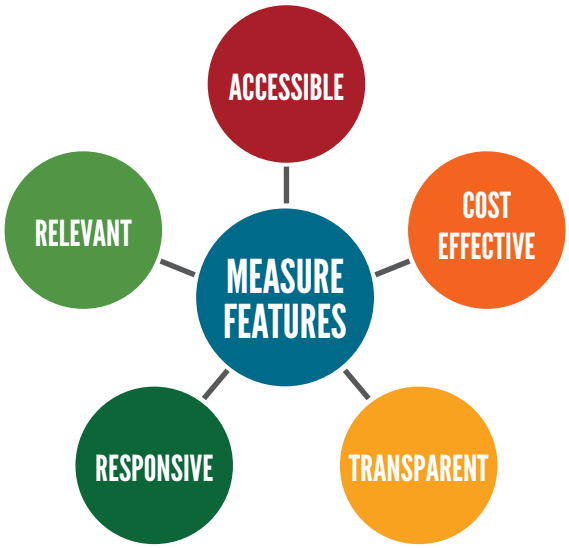
Applicants should be able to develop an agreement most suited to their local environment.They should be able to use the most appropriate land management options from each of the tiers. Capital grants should be available in both tiers and available outside of a multi-annual farmed environment scheme, with much shorter agreements. Many of these also help achieve productivity improvements. For example:

Hedge planting and stone wall restoration	**Gateway relocation**	**Ditch restoration**	**Concrete yard renewal**
Tree planting	**Minimum tillage drills**	**Leaky woody dams**	**Management of invasive alien species**
Slurry management equipment	**Grip blocking**	**Livestock handling facilities**	**Sprayer load and wash down areas**

CHARACTERISTICS OF A FUTURE FARMED ENVIRONMENT SCHEME

To achieve high uptake and therefore the successful delivery of environmental objectives, the farming perspective needs to be at the heart of all schemes, from design to implementation. To this end, policy should be accessible, cost-effective, transparent, responsive and relevant. We believe that through reflection of these five characteristics, all agri-environment schemes and related polices will better meet the needs of the farming sector whilst delivering the environmental outcomes society expects.

Any future farmed environment scheme should be voluntary and at least part of the offer should be **accessible and open** to all farmers and farm types. It needs to cater for all levels of ability and knowledge, with support for the different skills of land managers.



Schemes should be **cost-effective** in order to attain the best value from farmers' efforts and public funds. Intelligent design based on realistic farm conditions is central to this, but equally important is making available the adequate resources to successfully implement the measures. This means clear guidance, advice provided throughout the agreement by the delivery body and appropriate resources to process agreements. Getting the best value for money also means an appropriate incentive for farmers committing to actions and timely payments to provide a stable income stream. This is clearly a careful balance, but payments must adequately take account of the risk of participation.

The current payments, based on income foregone, do not always provide sufficient incentive for farmers compared to the risk of participation. The payment rates currently on offer do not cover the long term land use change required or encourage participation. The World Trade Organisation (WTO) rules mean that the income foregone requirement remains once we've left the EU. For a future farmed environment scheme, the interpretation and implementation of income foregone must be explored, together with the WTO rules, to address the current issues.

A **transparent** approach, where all parties are clear of their commitments and expectations, will lend itself to smoother operation, building trust between the parties and improved farmer buy-in. Guidance should therefore be straightforward and make clear why the actions to be undertaken are right ones to achieve the environmental objectives.

There should be clear accountability for how public money is spent, with appropriate records kept on farm to demonstrate compliance. This should be proportionate and carefully balanced with the time and effort required. Monitoring of agreement holders should consider the impact of non-compliance on the desired environmental objective, and record keeping requirements should play a supporting role. Onerous record keeping requirements discourages participation, as has been demonstrated by the current scheme.

Scheme measures need to be **responsive** to farm practice, how this can change over time and for different systems. Design should allow the flexibility for parts of farms to be entered into environmental management, rather than a binary choice of including the entire holding or not participating.

There needs to be a built-in recognition of the time it can take to achieve certain environmental outcomes such as the establishment of a wetland. Scheme measures need to be designed around this, with some designed as annual and others across longer multi-annual timescale.

There should be a built-in flexibility for payments to account for different land tenure practices, including common land arrangements. During a long term agreement it must be possible to allow changes in land tenure, without compromising environmental delivery. In future it would seem appropriate that payments for environmental work go to the person undertaking the practical work.

Agreement start dates should fit with farming practices, providing flexibility to fit with the farming calendar through monthly start dates. This will help farmers and administrators deliver agreements in a timely fashion.

Schemes need to be **relevant** to different areas of the UK and various landscapes. There should be a national delivery framework to ensure consistency and enable delivery of national priorities. There needs to be an approach that captures local environmental priorities and recognises local farm practices. This will allow timings of environmental activities to be tailored to local farming conditions such as hay cutting dates. Local community groups could support delivery through providing intelligence on local priorities and helping record environmental achievement for example, the Norfolk Broads.

Enhancing the environment need not run contrary to improving farm productivity. The farmed environment scheme should aim to support more efficient use of farm inputs and improve resource efficiency, whilst maintaining or improving yields.

Short to medium term

There are a number of approaches that may need further developing and piloting that could form part of a future farmed environment scheme, for example outcomes or results based schemes, reverse auctions and trading platforms. During the transition period to a new scheme Government should ensure that pilots and trials are in place and cover a range of farmed environmental objectives. Lessons should be learnt from existing schemes and measures, such as Countryside Stewardship (CS).

Come 30th March 2019, the assumed day of Brexit, we will be part way through the application window for 2020 CS agreements and 1st January 2019 agreements will have just been issued. It would appear the most sensible approach would therefore be maintenance of the current regime largely untouched in 2019, but underpinned by UK rather than EU law.

In the short term, while CS remains bound by EU regulations, there is a need to improve the current CS scheme. Ways to do this include:

- **Resources** must be made available to improve scheme delivery and reduce complexity for applicants. Appropriate staff resources need to be in place to deliver CS. The programming of SitiAgri that delivers CS needs to be improved and there needs to be more join up across government departments delivering CS.

- The overall scheme to be **simplified** with **a reduction of record keeping.** There should be consideration given to having more options available to Mid-Tier applicants.

- A **review of the interpretation of EU regulations** to reduce impact on delivery. For example, audit requirements that create bureaucracy for all involved.

- **Agri-environment scheme payments** are made on a regular basis to a recognised schedule that all agreement holders know.

- **Certainty from Treasury and Defra** about budget and therefore application windows for future years.

The assumed point of Brexit in 2019 in theory could remove the constraints of the EU regulations on the delivery of agri-environment. This offers the opportunity to improve CS, addressing some fundamental delivery issues. Ahead of transitioning to a new farmed environment scheme. The areas the NFU would like to see changed, that the EU rules currently prevent, are:

- Develop a more **proportionate and practical approach to record keeping** and evidence for example, through re-drafting the option prescriptions.

- A more **proportionate approach to penalties** and breaches of agreements to reduce the risks associated with participation.

- The **option prescriptions clearly link to the environmental outcomes** desired. This can be done by making audit requirements more proportionate.

- The payment structure needs to offer some form of **incentive for participation** in agri-environment schemes. There needs to be a review of the income forgone calculation particularly in regard to the low payment rates for grassland options.

- Allow a **smooth transfer** from existing schemes to CS.

- To maintain and improve environmental outcomes allow for **monthly start dates** for new agri-environment agreements. Also, removing the single start date would introduce flexibility much needed for Natural England and applicants.

DEVELOPING A DIVERSE APPROACH TO ENVIRONMENTAL DELIVERY

In the long term, new approaches may increasingly complement, but may also need to co-exist alongside, government farmed environment schemes. Renewables, Industry-led activity, Covenants, Biodiversity Offsetting, Natural Capital and Payments for Ecosystem Services, Carbon Credits and rewards through the supply chain are just a few examples of new markets or initiatives that have recently emerged and with further encouragement could continue to develop in future. These new approaches could be funded by the private or public sector, or a mixture of both.

The renewable energy market in particular has developed with more than a third of farmers now involved in some way including bioenergy (biomass, biofuels, biogas), wind power and solar photovoltaics. This provides low carbon energy and contributes to climate change adaption and mitigation efforts. Government policy has incentivised these approaches and helped overcome high upfront costs, although incentives are being reduced. However, as the technology has developed and become more affordable uptake has increased and costs have come down, reducing the need for clean energy subsidies. Yet continuing to develop a supportive policy environment, in terms of planning rules, national infrastructure and more modest financial incentives are still required to help farming deliver for the environment and climate with clean energy.

Complementing a farmed environment scheme delivery, industry-led activity can help address future environmental challenges and continued government support for these initiatives is critical. Farmers want to support the environment alongside their productive business. They don't always want to be part of a formal scheme, but they want to be acknowledged for their work supporting the wider environment and providing public goods. They need access to the best advice that suits their local conditions or farming systems. Industry-led initiatives such as the Campaign for the Farmed Environment (CFE), the Voluntary Initiative (VI), the Greenhouse Gas Action Plan and Tried and Tested (T&T) encourage farmers to be more resource efficient, protect soil, water and improve biodiversity. These initiatives have brought together industry, environmental groups and the farm advisory community to develop agreed environmental messaging for farmers. Importantly, these initiatives also demonstrate the industry's commitment and part in improving the farmed environment.

With regard to some alternative environmental delivery models, a business to business transaction or a new market approach may be attractive to many farmers. The challenge will be to develop approaches that reward multiple benefits, deliver a fair financial payment for the services provided and minimise administrative costs. With this in mind, farmers should be able to gain reward for a range of benefits delivered such as carbon sequestration and flood prevention from the same area of land, even if the funding comes from different sources. Financial payments offered also need to reflect and fairly reward farmers for the full costs of delivery as well as future losses. For example, a permanent land use change from arable production to wet grassland could be completed through a 10 year agreement. It would require payments for all capital works together with annual management costs and recognition of the permanent land use change. Administrative costs must be minimised to ensure that funding can be directed towards farmers undertaking the environmental delivery, not through intermediaries or third parties.

Farmers would be willing to participate in these new market approaches, provided that these are voluntary, the obligations set out actions are achievable, are flexible to respond to the challenges thrown up by the natural environment and recognise and respond to the needs of the farming business, such as future modification, but also termination. However, contracts of more than 20 years are unlikely to be adopted. This is because farmers want to retain future flexibility for land use to respond to the markets. Such long agreements would be a constraint on future generations who should make their own decisions on how to manage the land.

New approaches also provide the opportunity to devise new funding and reward models in addition to public funds, which should be sustainable in the long term and draw additional monies from the market. Significant benefits may be achieved in terms of realising synergies and efficiencies in fund management, project monitoring and reducing financial risk to individual entities thereby encouraging farmers to work collaboratively across a larger area and greater participation from a broader range of stakeholders. This is leveraging effect, whereby public funding encourages greater levels of private sector engagement, could unlock more capital for farmers to use to invest in technology and infrastructure beneficial to the environment.

There are a number of examples where the supply chain offers reward to farmers for the valuable work they do to improve and enhance our environment, alongside producing food. The challenge is to ensure that these environmental commitments by farmers continue to be fairly recognised and rewarded and that consumers are aware of the good work being undertaken. New approaches to environmental delivery can provide a new stream of largely stable income that can be used to reinvest in businesses to improve productivity and manage market volatility. Several market mechanisms are already in various stages of development where payments could be made to farmers. For example:

Covenants
Conservation covenants would commit the land owner to environmental delivery. The covenant would be part of the land title and would remain with the land on change of ownership. This approach has the ability to secure the long term use of the land. If conservation covenants met the current and future farm business needs then there would be uptake of this approach. The payments for environmental management would need to match the costs of the management and maintenance for the lifespan of the covenant.

Biodiversity Offsetting
Biodiversity offsetting is the process of 'buying' biodiversity to replace some that could be lost or damaged. For example, a house building project damages great crested newt ponds. The house builder uses biodiversity offsetting to 'buy' the creation and future management and maintenance of new and improved great crested newt habitat. This approach has been tested through the planning system. This mechanism has potential if identified contractual issues could be resolved.

Natural Capital & Payments for Ecosystem Services
Natural Capital can be defined as stocks of natural assets such as air, soil, water and biodiversity. Ecosystem services are the processes found in our landscapes that provide us with a wide range of goods and services, such as food, clean water, air and biodiversity, and deliver benefits in health and well-being. The Natural Capital approach or Payments for ecosystem services (PES) are about creating funding opportunities to reward proactive management and maintenance of those assets or ecosystem processes. For example, Severn Trent Water is offering grants to farmers to improve water quality. A way needs to be found to unlock payments for care of our natural capital assets or ecosystem services more broadly.

Carbon Credits
Carbon credits are an innovative way of securing funding for carbon sequestration. Carbon credits are a voluntary opportunity for farmers capture carbon and secure a payment for that. This approach has been in development for a number of years. The UK Peatland Code and the Woodland Carbon Code are two examples where a Code of Practice has been developed to enable markets in carbon credits.

Supply Chain Reward
Supply chain reward and recognition for good environmental management can be delivered through a number of ways including certification schemes or supply chain initiatives. For example, some retailers work with farmers to carbon footprint farms and a leading manufacturer has recently introduced a new payment system to reward dairy farmers in their supply chain who undertake good environmental practices.

FACILITATING SCIENCE, DEVELOPMENT AND INNOVATION

Science, research and innovation are as important to increasing resource efficiency and reducing our environmental impact as boosting our productivity, growth and competitiveness. Yet research can only make an impact on farm performance if it is put into practice. Funding in the Domestic Agricultural Policy should therefore be aimed at ensuring R&D findings are practical, disseminated, understood and implemented by farm businesses.

Funding for academic research itself should however be provided for in wider science policy within government. From a farmer's perspective, the NFU report *Feeding the Future: Four Years On*[11] provides examples of what should be funded that would lessen farming's impact on the environment and improve our resource efficiency. In particular:

- Undertake research that will enable UK agriculture to mitigate and adapt to the predicted impacts of climate change e.g. improved predictions and management responses to extreme weather events with a particular emphasis on water;

- Quantify the contribution that farming practices make to the value of tourism, rural landscapes, human health and well-being and other aspects of the UK rural economy;

- Provide an ability to map and understand the source of spatial variation in soil nutrients and biophysical properties contributing to soil health as a prelude to better fertiliser targeting and achievement of both environmental and productivity gains; and

- Deliver technology to sample and manage air and water quality in housed livestock production systems including early detection of diseases.

Innovation is crucial to profitable, productive and progressive businesses that can deliver for the environment. Involving farmers and growers in the research process allows consideration of farmers' practical needs and their knowledge and expertise at every stage of research, from concept to rollout. Crucially, we need to know which activities, management interventions and policies work for productivity, resource efficiency and the environment.

Early farmer involvement in the process will help research findings be more relevant, but the impact can be further increased in part through fostering better links between farmers, researchers, advisers and technicians in what is a complex agricultural and environmental research landscape. Improving this interaction will help to actually get innovative technologies and processes implemented on farm. In practical terms, the European Innovation Partnership initiative under the existing Rural Development Programme for England provides a good starting point for getting research findings out to farms and something that could be delivered through the Domestic Agricultural Policy. Having innovative practices and technologies developed and tested on farms, with right advice has the potential to lead to more rapid and sustained environmental gains.

Short to medium term

Reliable, robust and relevant data are key to help farmers meet global challenges such as producing food and making environmental improvements. Data are critical for measuring, monitoring trends and in the development of indicators – we need to know where we are starting from, in terms of baseline data, but also how well we are progressing towards meeting objectives or targets. These are also important to assess whether policies are achieving their outcomes or if changes are needed.

Surveys such as the Farm Practices Survey have been used extensively by the industry to assess the environmental performance of the agriculture sector in areas such as nutrient and manure management planning. These are particularly relevant in instances where new practices are quickly adopted within the industry and therefore require more frequent monitoring to chart progress.

The Countryside Survey has been important in recording the quantity and quality of change in our landscapes and detecting changes that occur in the UK's countryside and natural resources over time. Unfortunately, the it was last published in 2007, but there is still a real need for the industry to have access to up-to-date data on a wide range of relevant environmental conditions.

Government needs to continue to invest in regular surveys to enable open, transparent and available countryside and environmental data.

SUMMARY

We believe that a future environmental policy should consist of a mix of incentive schemes, including a farmed environment scheme, complemented by new market approaches, such as Payments for Ecosystem Services and industry-led action to improve environmental delivery. In addition, we see that science, research and innovation have an important role to help increase our resource efficiency and reduce our environmental impact.

A future Domestic Agricultural Policy can ensure that farmers continue to deliver for the environment and enhance it further by:

- ✓ Recognising that farms will be in the best position to manage land for environmental benefit if they are profitable, competitive businesses and that the activity of food production need not run contrary to achieving positive environmental outcomes.
- ✓ Designing all elements of the policy with the farming perspective at heart to maximise uptake, environmental benefit and value for public money.
- ✓ Providing a farmed environment scheme that is voluntary and open to all farmers across the country that benefits the environment and climate in a variety of ways.
- ✓ Developing and supporting new approaches to funding environmental delivery through the private sector.
- ✓ Support knowledge transfer and adoption of best practice by farmers.
- ✓ Encourage the uptake of innovation, particularly around resource efficiency that benefits both the farmed environment and productivity.

Government can support targeted funding for environmental delivery by farmers and help them go further in wider policy by:

- ✓ Providing clarity as the UK retains its environmental commitments and builds a new trading relationship with the EU, and the rest of the world, with effective policy support.
- ✓ Ensuring that pilots and trials are in place and cover a range of environmental objectives during the transition period. There are a number of approaches that may need further developing and piloting that could form part of a future farmed environment scheme, e.g. outcomes or results based schemes, reverse auctions and trading platforms.
- ✓ Improving the current Countryside Stewardship scheme. This should be seen as an opportunity to test some of the features of realising a new farmed environment scheme and other new delivery methods.
- ✓ Continuing to invest in regular surveys to enable open, transparent and available countryside and environmental data.
- ✓ Developing a supportive policy environment, in terms of planning rules, national infrastructure and financial incentives is needed to help farming deliver for the environment.

REFERENCES

1. Defra. *Agriculture in the United Kingdom 2016*. 2017
   https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2016
2. Defra. *Observatory monitoring framework indicator data sheet*. 2016
   https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/545292/agindicator-a3-11aug16.pdf
3. Defra. *Briefing pack, RDPE Schemes Launch.* 2015.
   https://www.cioslep.com/assets/file/RDPE%20Launch%20Briefing%20pack%20updated%20version%2029.03.15.pdf
4. M. Reed et al. *The Future of the Uplands.* Land Use Policy, vol. 265, pp. 204-216. 2009.
5. Natural England. *Uplands Strategic Standard.* 2013.
6. Defra. *The British Survey of Fertiliser Practice 2015*. 2016
   https://www.gov.uk/government/statistics/british-survey-of-fertiliser-practice-2015
7. Defra. *Campaign for the Farmed Environment - Survey of land managed voluntarily in the 2014/15 farming year (England).* 2015.
   https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/439452/landenvmanagement-statsnotice-30jun15.pdf
8. Defra. *Agri-Environment Indicators.* 2015.
   https://www.gov.uk/government/statistical-data-sets/agri-environment-indicators
9. NFU. *Farmer Confidence Survey* 2016.
10. NFU. Own calculations from *Farmer Confidence Survey* and BEIS figures on solar photovoltaics deployment.
    https://www.nfuonline.com/assets/69296
11. NFU. *Feeding the Future: Four Years On*. 2017
    https://www.nfuonline.com/assets/93387

Published by:
NFU, Agriculture House, Stoneleigh Park
Stoneleigh, Warwickshire CV8 2TZ

January 2018