

Health and Harmony: the future for food, farming and the environment in a Green Brexit

Online submission form at <https://consult.defra.gov.uk/farming/future-of-farming/> or email submission to: agricultureconsultation@defra.gsi.gov.uk

Contents

Background and introduction	2
A vision for the food and farming system in post-Brexit Britain	2
Agriculture: the case for change	3
Moving away from the Common Agricultural Policy in England	3
Reform within the CAP	3
An 'agricultural transition'	4
A successful future for farming	5
Farming excellence and profitability	6
Agriculture technology and research	7
Labour: a skilled workforce	8
Implementing our new agricultural policy in England	9
Public money for public goods	10
Enhancing our environment	11
Fulfilling our responsibility to animals	13
Supporting rural communities and remote farming	15
Changing regulatory culture	16
Risk management and resilience	17
Protecting crop, tree, plant and bee health	19
Ensuring fairness in the supply chain	20
The framework for our new agricultural policy	20
Devolution: maintaining cohesion and flexibility	20
International trade	20
Legislation: the Agriculture Bill	21

Background and introduction

This consultation response has been produced on behalf of Green MEP Molly Scott Cato.

Molly Scott Cato is a member of the European Parliament's Committee on Economic and Regulatory Affairs and a substitute member of the Committee on Agriculture and Rural Development.

Many of the ideas and opportunities proposed here are covered in greater detail in the reports:

- [Ploughing a lone furrow: Farming policy post-Brexit](#). Two reports commissioned by Molly Scott Cato in 2017.
- [Animals and Brexit](#). A report for Keith Taylor MEP, Green Party Animals Spokesperson

These reports outline an ecologically sustainable and higher welfare farming system

This submission also draws upon a range of visits and meetings by Molly Scott Cato and her team across the SW constituency with farmers, food producers, land managers and others who are intimately connected with the land and animal farming. These range in scale from micro-dairy and small Community Supported Agriculture operations to large farming estates exporting internationally, from 'conventional' farming using the full range of mechanical equipment and chemicals to organic, labour-intensive models.

A vision for the food and farming system in post-Brexit Britain

Our vision for the UK's future food and farming landscape has high environmental and animal welfare standards operating within a resilient and sustainable system that is more self-sufficient in food production than our current society. There would be far more organic production than at present, and an interconnected network of small producers and local markets prioritising local food for local people. Farmer's livelihoods would be secure and rural communities would be revitalised.

We believe that a holistic approach to this issue is needed that takes account of a range of issues, not just farming and food production but also the wider food system including processing, distribution, consumption and waste, because there are so many different issues that need to be considered to achieve our vision. For example, housing, transport and online access in rural areas are key considerations for enabling people to remain in employment in the farming sector, and education may well be a key factor in ensuring enough young people become farmers. The wider system of taxation, tax rebate and subsidies should also be considered as these can play a strong role in driving intentional and unintentional behaviours. The issues we raise may not all be within the remit of Defra to enact, but this level of change cannot be implemented without wider consideration of the many interacting factors that have an impact upon farming, land management and the health of our environment.

It should also be noted that the environment and our countryside are continually called upon to fulfil a range of different, and sometimes competing, functions: tourism in beautiful parts of the countryside brings in much needed income to keep some rural communities functioning, but this may compete with other functions. Balancing these different needs to ensure the land can produce food, amenity, energy, inspiration, carbon capture, water management, habitat or provision of a home will need to be done sensitively and with an understanding of different needs now and in the future.

We need to return to developing policy that is influenced by evidence wherever possible. In the past few years there has been a move to ignore the expertise and knowledge of researchers and experts and implement policies and proposals that have an immediate (and sometimes superficial) appeal to either the voter or the politician. This risks implementing proposals that are not sound and as a consequence may not achieve the desired outcomes or represent poor value for money. We need to return to a more rigorous evidence-based approach even if that does not appeal to some more vocal parts of the electorate.

We continue to believe EU membership is in the best interests of Britain. Short of stopping Brexit, we advocate the closest possible UK relationship with the EU, and believe that should involve staying a member of the Single Market and the Customs Union. As a minimum the UK should retain and keep pace with EU standards, especially in relation to food standards, environmental protection, animal welfare and the rights of workers.

Agriculture: the case for change

While it is true that we have suffered enormous environmental damage, it must be acknowledged that this environmental damage has happened in countries across the world, the majority of whom are outside the Common Agricultural Policy.

Not to acknowledge this - and the fact that it is human intensification of production, living beyond our means, and driving soil, water and air to operate in ways far beyond their natural capacity – is to risk not making the changes that are necessary to move to a more sustainable and less ecologically damaging farming system in the future. If we choose to lay all the blame at the door of the CAP we are forever doomed to make the same mistakes.

Moving away from the Common Agricultural Policy in England

The CAP is currently under reform within the EU and our Greens-EFA political group of MEPs are proposing EU-wide CAP reforms through that process¹. Agricultural policy, including any payments regime, whether at EU or UK level, needs to ensure that farming can function sustainably within environmental limits and to high standards of animal welfare, whilst meeting the economic and social needs of local communities.

Reform within the CAP

Simplification of the application process for single farm payment would appear to resolve the complaints of many farmers that there is too much bureaucracy in the system and delays can be interminable.

Although for the long term we propose a system that is far simpler and would involve people with real expertise in its administration, we would like to propose that moves towards such a system are taken now.

The system we would prefer is outlined in the section 'A successful future for farming'.

¹ <https://www.greens-efa.eu/en/article/document/cap-for-the-future/>

We believe that there has long been underfunding at Defra and in particular within the Rural Payments Agency, and these should be addressed at the same time.

An 'agricultural transition'

Our long-term vision for farm support is to break the link between the receipt of public money and land ownership. Farmers should receive public support and the budget should not be reduced if we leave the EU. In future, public money should be paid in return for the demonstrable achievement of social and environmental goods.

In 2016, the top 100 recipients of the single payment scheme received £61.2m in subsidies – more than the bottom 55,119 recipients received altogether². Therefore, as an immediate priority for the transition, a cap should be applied to the largest payments; such a capping system was possible under the CAP but the government has chosen not to exercise this power in England to date³.

If public money is used to support land-based activities then landowners owe an equal responsibility to taxpayers to behave responsibly. Any recipient business that would normally be eligible for direct payment, but which is registered offshore or uses complex ownership structures to hide the nature of its beneficial ownership, should be ineligible to receive any payment at all.

We would suggest that direct payments are phased out over several stages with the aim of reducing the amount of funding that goes to large landowners, and increasing the amount that goes to farmers themselves through existing and newly developed agroecological schemes.

The first stage should:

- Be short term (we would envisage two years beyond the transition period).
- Redeploy a share of existing Pillar I payments to existing schemes in Pillar II. This should be done with a view to maintain frameworks of existing Pillar II schemes and funding new pilot schemes.
- Support the transition through investment of public money to provide business advice, knowledge exchange, research and development.

The second stage should:

- Start with the release of a comprehensive new policy, such as that outlined in the Wildlife and Countryside Link discussion paper (2017)⁴. This policy would be in line with sustainable agri-environmental schemes across the farming sector.
- Continue to phase out direct payments.
- Continue investments into pilot projects and begin the implementation of successful schemes.

The third phase should:

- Result in the end of direct payments.

² <https://www.theguardian.com/environment/2016/sep/29/eu-farming-subsidies-uk-cap-ceiling-england>

³ https://www.sustainweb.org/news/sep30_uk_could_have_avoided_excessive_cap_payments_to_wealthy_landowners/

⁴ <https://www.wcl.org.uk/docs/Link%20farming%20and%20land%20use%20policy%20paper%20FINAL%20Sep%202017.pdf>

In the short-term, there will undoubtedly be some land-owners who lose out through a reduction in the money they would have received under the CAP but who are also actively managing their land for improved environmental outcomes. This is an unfortunate consequence of the move to a fairer and more environmentally responsible scheme. Consideration should be given to whether there will be negative unintended consequences that can be offset by payments for environmental goods or whether this is just something that has to be tolerated in the move to a different system. We believe the transition from Pillar 1-type payments to public goods payments should be gradual and not a rapid cliff-edge scenario that would be damaging to farmers who need time and tools to build up ecological practices

A successful future for farming

Currently UK farmers receive about £3.2bn in subsidies⁵, much of which is in the form of 'direct payments' which are paid according to the amount of land owned. On average, this subsidy accounts for over 50 percent of farm income⁶ and can make up to 80 percent of a UK farmer's income⁷. We would like to see this level of subsidy maintained at the very minimum – this money should be ring-fenced since we do not believe that Brexit should be used as an excuse to reduce government money being invested in rural areas.

However, the UK actually contributes approximately £7bn a year towards the EU's agricultural budget⁸ – redirecting all of this money (we propose ring-fencing £3.2bn at the very minimum), could contribute to achieving much higher levels of sustainability, improved animal welfare, environmental restoration, carbon capture and other environmental and social goods. This level of funding might make it possible to properly tackle some of the environmental degradation we are currently seeing and deliver a food system that includes farming animals to higher standards. Additionally, this funding could also benefit rural communities and create livelihoods, where we are currently seeing widespread deprivation and joblessness in rural areas.

We propose that all subsidies for individual farmers should flow through a single 'Whole Farm Management Scheme' (WFMS)⁹, to include: (i) Environmental options; (ii) Start-up schemes for new holdings, new enterprises or conversions; (iii) Other capital grants; (iv) Contributions towards organic certification; (v) Forestry planting and management (vi) Special grants for innovative farm structures; (vii) Grants for taking trainees and training; and (viii) Payments to enable and reward higher animal welfare standards.

The WFMS should have one application form, one monitoring procedure and one payment per farmer, but could be made up of a number of component 'actions' to deliver various public goods. This would streamline the paperwork and application process which has been the subject of continual complaints. It is also essential that the Rural Payments Agency, or whatever replaces it, should be adequately resourced to fulfil this task.

How these payments to farmers might work is as follows:

- Payment should be for management of the land, not ownership of the land;

⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/483344/EU_finances_2015_final_web_09122015.pdf#page=44

⁶ <http://www.bbc.co.uk/news/world-europe-11216061>

⁷ <http://researchbriefings.files.parliament.uk/documents/CBP-8218/CBP-8218.pdf>

⁸ <https://www.nfuonline.com/assets/61142>

⁹ <http://mollymep.org.uk/wp-content/uploads/Simon-Fairlie-FULL.doc.pdf>

- Each farmer should work with one employed advisor who has appropriate and sufficient training to understand the issues and be able to support them through the process. These advisors would not necessarily have the skills or expertise to carry out on-farm assessments, so;
- Former farmers and those with similar levels of experience and knowledge in the sector could be considered as ideal candidates for carrying out on-farm assessments;
- Certification of organic production should be carried out as part of the same assessment and payment process normalising organic as a production method;
- Actions that improve water management and retention in the landscape, agroforestry and woodland planting, carbon storage, management for farmland wildlife and biodiversity, and soil protection should be included in the scheme.

The scheme should not include:

- Direct payment/pillar 1-type payments merely for owning the land – this pushes up land values and bears no relation to productivity or environmental performance of the land;
- Higher rewards for the mitigation of harmful practices than the reward paid for sound practices from the outset¹⁰.

A key aspect of this system will be ongoing monitoring for compliance and delivery of the activity that is being paid for and identifying key indicators that will allow measurement of whether or not aims are being achieved. We envisage a range of indicators will be needed, and they may change over time as targets are met and new aims are formulated. Ongoing monitoring of aims and indicators will be critical to ensure that unintended consequences of action do not occur.

Farming excellence and profitability

UK agriculture already demonstrates many examples of excellence and innovation in policy and practice, but these may not be widely shared. Supporting the spread of this through core funding and using a range of methods such as training, advice-services, peer-to-peer learning and demonstrations is vital. A range of these methods are outlined below.

Training and apprenticeships need to be adequately funded, both to open up the industry to a broader range of people, but also to ensure those entering and already working within agriculture have the most up to date knowledge and information possible.

Farmers routinely meet representatives from large chemical and feed companies keen to supply and sell to them; this can skew their knowledge and understanding of issues. To enable a more balanced skill set they need to be hearing about other practices and ways of operating that are not high-tech or chemical-based. For this reason, there needs to be support for knowledge exchange with researchers and those practising different techniques to enable the spread of good practice. This will also allow farmers to select those methods that will be best suited to their own particular farming system and circumstances.

¹⁰ <http://mollymep.org.uk/wp-content/uploads/Simon-Fairlie-FULL.doc.pdf>

A nationwide agricultural advisory service providing information for all land-managers, large or small, should be developed in conjunction with agricultural colleges on the model of the US extension service.

Alongside formal training, there should be opportunities for farmer-led innovation and support for knowledge exchange. Allocating a proportion of the research budget to be used on grassroots activity would share the risks of trying new practices and ways of doing things more widely and enable farmers to share this knowledge amongst themselves. Additionally, 'farmer-to-farmer' approaches are some of the most effective methods in assisting farmers to move toward more sustainable practices.

Programmes like the Soil Association's 'Future Growers'¹¹ and 'Innovative Farmers'¹² allow entrants to the sector, and those also already working in it, to experience best practice, network and build their skills and knowledge. Consideration should also be given to providing support or bursaries to potential participants as a way of spreading information about key aspects of farming the government is keen to see supported.

We should keep programmes like the Rural Development Programmes of England, Wales and Scotland, whilst making their key prerogatives core production from sustainable agriculture, rather than 'diversification' into activities such as rural tourism.

Support payments to assist small-scale farmers and new entrants should be provided and modelled, with appropriate adjustments, on the Scottish Small Farms¹³ and New Entrants Grant Schemes¹⁴.

Agriculture technology and research

The focus on agricultural technology has tended to be on chemical inputs and heavy machinery. Here we draw attention to several areas which we consider would benefit from greater focus:

More funding should be made available for the development of seed varieties and agricultural techniques suitable for organic, low-input and smaller-scale farming.

Developments in genetic science and animal breeding techniques continue to produce ever higher-yielding animals without consideration of their welfare. The health consequences of increased production in cows has seen lameness increase, mastitis remain at unacceptably high levels and infertility increase¹⁵. Welfare must become the prime consideration with any animal breeding and genetics technologies¹⁶.

Soil plays a crucial role in modern society supporting agricultural and food security, climate change mitigation, and flood risk management¹⁷ and as a result should be high up in the list of priority research areas. Soil health attracts increasing levels of Ministerial focus, although the warm words have so far failed to translate into concrete actions to meet government ambitions for soils by

¹¹ <https://www.soilassociation.org/futuregrowers/>

¹² <https://www.soilassociation.org/farmers-growers/innovative-farming/>

¹³ <https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/small-farms-grant-scheme/>

¹⁴ <https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/new-entrants/>

¹⁵ <https://www.civf.org.uk/media/3818641/impact-of-selection-on-health-and-welfare-of-dairy-cattle.pdf>

¹⁶

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/325222/FAWC_report_on_the_welfare_implications_of_breeding_and_breeding_technologies.pdf

¹⁷

<http://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Environmental%20Audit/Soil%20Health/written/26780.html>

2030¹⁸. Research alone, however, is inadequate and must be accompanied by adequate funding to translate it into practice across the wider industry. A soil strategy, committing to long-term monitoring of the soil, would be a positive accompaniment to the government's 25-year environment plans¹⁹.

'Sustainable intensification' should not be regarded as an environmental improvement eligible for subsidy, instead we need to incentivise organic soil-friendly methods of farming. Extensive farming also tends to be better for biodiversity than intensive farming²⁰.

Labour: a skilled workforce

The ageing demographic of the farming workforce across much of the world is also characteristic of the farm workforce in the UK²¹. There should be a focus on promoting farming as offering valuable and rewarding jobs and employment options. And support for younger people making decisions on future careers so they choose to pursue it or study further at university before moving into farming, whilst also maintaining the skill levels of those already in the industry²².

Encouraging people into the industry is especially important if EU freedom of movement is stopped or dramatically curtailed as UK agriculture currently relies so heavily on EU migrant and seasonal labour. We continue to argue for the positive value of freedom of movement - socially, economically and culturally, and, short of stopping Brexit, advocate the closest possible UK relationship with the EU. This should involve the maximum level of free movement and reciprocal rights for UK and EU citizens. This should mean continuing to give EU workers the opportunity to work in the UK, including in the agriculture sector, and UK workers the maximum opportunity to work across the EU. Employers should, however, advertise agricultural vacancies locally to help maximise employment opportunities for the local community.

It is also important to note that a significant proportion of people working across the food production sector are from other EU countries and this has led to dependencies seen in certain key sectors. The Royal College of Veterinary Surgeons (RCVS) currently registers around 1,000 overseas vets a year, with the vast majority coming from the EU²³ and the latest figures available reveal that at least 20 percent of the UK veterinary workforce is made up of vets who graduated from non-UK EU universities²⁴. Over 90 percent of 'Official Veterinarians, who carry out work of a statutory nature, are non-UK EU citizens, many play an essential role in abattoirs maintaining animal health and welfare²⁵. Other areas of the food supply sector heavily reliant on EU labour include abattoir workers and meat processing operatives where up to 63 percent of the 75,000-strong workforce is made up of non-UK EU labour²⁶. This is not unskilled labour, in some cases learning all the roles on the production line can take years and these jobs are year-round permanent work. Recruitment of UK nationals into these roles is difficult and hindered by a lack of willingness or capability to take the

¹⁸ <https://publications.parliament.uk/pa/cm201617/cmselect/cmenvaud/180/180.pdf>

¹⁹ <http://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Environmental%20Audit/Soil%20Health/written/27349.html>

²⁰ http://ageconsearch.umn.edu/bitstream/182809/2/Desquilbet-Land_sharing_vs_land_sparing_for_biodiversity-143_a.pdf

²¹ <https://publications.parliament.uk/pa/cm201415/cmselect/cmenvfru/243/243.pdf>

²² <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-committee/food-security/oral/6222.html>

²³ BVA (2017). Preparing for our future UK trade policy: British Veterinary Association Submission. https://www.bva.co.uk/uploadedFiles/Content/News,_campaigns_and_policies/Get_involved/Consultation_archive/BVA%20DIT%20Trade%20White%20Paper%20FINAL.PDF

²⁴ RCVS (2015). RCVS Facts 2015. <https://www.rcvs.org.uk/news-and-views/publications/rcvs-facts-2015/?destination=%2Fnews-and-views%2Fpublications%2F%3Ffilterkeyword%3Dfacts%26filtertype%3D%26filter-month%3D%26filter-year%3D%26filter%3DFilter>

²⁵ <https://publications.parliament.uk/pa/ld201719/ldselect/lducom/15/15.pdf>

²⁶ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/eu-energy-and-environment-subcommittee/brexit-agriculture/written/48562.html>

jobs. While training can tackle problems of capability it cannot tackle a local population's unwillingness to take on certain types of work. There is also unskilled seasonal labour focused around harvesting. We support NFU calls for a Seasonal Agricultural Permit Scheme²⁷ as suggested by their proposal but note that this will not be adequate to ensure all the jobs across the agriculture and food production industry are filled so call for continued freedom of movement for workers in these industries. Additionally, business and financial training must be offered particularly to those looking to enter the agricultural sector with little or no prior experience.

As well as getting people into farming, there needs to be support for managerial skills training to enable existing farmers to take on management of large farms and other set-ups that combine farming and processing or other related activity. These can be complex operations and for some there will be export of products to the rest of the world requiring people with an ability to manage operations internationally.

Agriculture is an increasingly skilled job, with advances in machinery, chemicals and regulatory regimes all requiring ever increasing levels of skill. The move to more industrialised agriculture and the growing complexity of machinery, and in some areas replacement of people with robotic systems, requires increasingly skilled people to build, service and operate the machinery taking on numerous tasks. Training must recognise the importance of these roles that are less about providing support but are now integral to many farm businesses.

Additionally, business and financial training must be offered particularly to those looking to enter the agricultural sector with little or no prior experience.

Higher wages for farm workers, such as at least the national living wage, in part through the re-establishment of a statutory body to oversee wages would also encourage more people into the sector.

Implementing our new agricultural policy in England

There are a number of areas that will require specific support because there are national shortages or imbalances, lack of expertise or a trade gap that needs to be closed regardless of our membership or otherwise of the EU. These should be supported by specific strands within the payment system:

Mixed farming: In the short-term, there should be a return to mixed farming whereby intensive animal farms move to a mixed farming model. We currently have a situation where the majority of the Eastern side of the country is under arable crops and reliant on artificial fertilisers, and the Western side of the country has a surplus of manure due to high levels of livestock farming²⁸. Mixed farming would reduce current arable farms' reliance on chemical fertilisers and allow them to sequester more carbon and would allow existing livestock farms to produce less pollution and support more biodiversity.

In the longer term there should be a move towards a plant-based diet, which will have benefits for the environment, human health and animal welfare. To support this there will need to be a range of agricultural systems and practices which meet the criteria for sustainability, these should include organic, stock-free organic, permaculture, agroecology and forest gardening

²⁷ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/economic-affairs-committee/brexit-and-the-labour-market/written/47360.html>

²⁸ <http://mollymep.org.uk/wp-content/uploads/Simon-Fairlie-FULL.doc.pdf>

Horticulture: There should be targeted support from government for horticulture as a priority sub-sector. In 2016 home production contributed to around 54 percent of the UK's total supply of vegetables and just 17 percent of the UK's total supply of fruit²⁹; this weakness in the UK's self-sufficiency needs to be addressed³⁰. Added to that is the fact that the £9.2bn trade gap for fruit and vegetables in 2016 was by far the greatest of any agricultural sector³¹ (imports of fruit and vegetables were £10.3bn while exports were £1.1bn).

There is a particular need to expand and improve support for domestic production of vegetable protein crops for animal and human food to reduce our reliance on imported soya crops which play a leading role in global deforestation. This will further strengthen UK food security, and reduce agricultural GHG emissions (from methane), especially when this involves agricultural diversification away from meat production.

Certain meat products should become liable to VAT as an incentive to move towards more plant-based and climate-friendly diets. Products subject to VAT would be those produced by large-scale and factory farm producers; small scale producers supplying direct to the consumer and with a turnover under £82,000 per year (the standard VAT threshold) would remain exempt. The additional VAT income could be used to subsidise the costs of fresh fruit and vegetables.

Widespread local vegetable and fruit production feeding into local markets would reduce food miles, the need for refrigeration and packaging, and, if combined with direct sales, would gain a price premium for farmers. Furthermore, horticulture can be carried out viably on a small amount of land with small-scale tools and machinery, so start-up costs for new entrants are less than for many other agricultural sectors.

Support for new entrants and start-ups: specific targeted support for new entrants to the sector is needed. This may be in the form of loans or grants and should recognise the various barriers to entrants that include land and housing in particular, but also access to funding and information. Training schemes that support new entrants are also valuable in providing this kind of support.

Public money for public goods

The commodification of nature and unintended consequences of certain actions are potential issues that can arise from using public money for public goods. Definitions of public good and application of a scheme to support them must therefore be done with care and monitored once underway to avoid problems.

Clarity on how different actions fit within national strategies, such as carbon reduction targets, will allow farmers a greater understanding of why specific actions are funded and how they contribute to social benefit.

We propose that rather than focusing on the top three environmental outcomes, the whole range should be considered public goods to be supported by government. Indeed, it is one of the key lessons of ecology that environmental systems are in symbiosis, so the ideal policy is one that achieves a whole range of interacting environmental benefits simultaneously. However, depending

²⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646536/hort-report-22sep17.pdf

³⁰ <https://publications.parliament.uk/pa/cm201415/cmselect/cmenvfru/243/243.pdf>

³¹ <https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply>

upon the individual nature of the farm, its products and production methods, some will be more important than others.

It is impossible to select one particular environmental outcome from the six provided as they all operate within an interlinked system. A range of different factors, including geographical location will have different levels of impact upon these. For example, in areas where certain types of crops are regularly grown, soil erosion can be higher leading to poorer water quality as well as soil depletion. Chemical farming combined with a lack of buffer strips alongside watercourses can exacerbate the water quality problems – tackling any one of these issues does not tackle the whole problem.

There is increasing concern for the welfare of the millions of farm animals reared for meat, dairy and eggs. The sentience of farm animals must be considered when developing new regulations. Their capacity to suffer and experience pain, means that animal welfare is one of the most important public goods the government should support. For example, a Eurobarometer survey reported that 62 percent of British public respondents felt animal welfare did not receive enough importance in the UK's food policy³² and 72 percent would be willing to pay more to buy products from animal welfare friendly production systems³³.

The government should also encourage farmers to take a more responsible approach to the way they manage their land so as to mitigate the impact they have on wild animal welfare.

Enhancing our environment

We identify a number of actions that we believe are important to support if we are genuinely aiming to move towards an environment that is in a better state than that in which we currently find it:

Agroecology: ways to farm ecologically that can equal or surpass the yields from current industrial agriculture can and must be identified. Not only is agroecological farming more environmentally friendly, it is typically more labour intensive, and therefore more jobs-rich than current conventional farming thus encouraging a return of people to the land and revitalising rural communities.

The potential increase in food prices that may result from such a policy should be tackled through other policies to tackle oligopoly in food supply systems and enhance the power of producers in the supply chain.

Agroforestry; there should be a national agroforestry strategy so that we can benefit from the increased yields and profitability, and the resilience of the agricultural system. If deployed at scale it would also help mitigate soil erosion (see point below) nitrogen leaching and biodiversity loss while increasing carbon sequestration.

Clear targets for agroforestry should be issued; one suggestion from the Soil Association is to emulate French agroforestry targets and aim for 50 percent of farms to have agroforestry by 2030.

Clear ownership and responsibility for the agroforestry strategy, targets and delivery are required – at the moment it falls between government departments; one Minister is needed to be accountable for its delivery.

³² European Commission, 2005. Eurobarometer – Attitudes of consumers towards the welfare of farmed animals Q12.

³³ European Commission, 2016. Attitudes of Europeans towards animal welfare. Special Eurobarometer 442.

Investment in soils: the growing recognition by Ministers of the importance of soil is welcomed but now needs to be matched with action to protect and restore soils. Increases in soil carbon should be a key aim within farming and soil organic matter monitoring and reporting would enable progress to be tracked.

Upstream river-catchment policies should focus on water retention in areas of low agricultural productivity; and preventing soil erosion through catchment-sensitive farming on more productive farmland.

Expansion of organic farming: The public benefits delivered by organic farming³⁴ have been well documented by independent research over decades^{35, 36}. They include more wildlife and biodiversity³⁷, healthier soils³⁸ with better structure and improved carbon storage^{39,40}, management and cleanliness of water⁴¹, lower pesticide⁴² and antibiotic use⁴³, more jobs⁴⁴ and healthier food⁴⁵. In some other countries such as Austria, Estonia and Sweden, organic farming accounts for nearly a fifth of production⁴⁶, and sets new norms for policy, business and the public. Reaching such a tipping point would be game-changing. We propose an organic strategy for England be developed by government in partnership with the organic sector.

Organic farming should be included as part of the payment system to support the conversion to, and to maintain, improve and expand the organic farming offer.

Water catchment benefits: Grants for the improvement of water management and retention should be applied through the payment system, on a regional and catchment basis, after consultation with relevant stakeholders through the agency of Catchment Partnerships. Levies may be applied to major beneficiaries such as water companies, or to householders via a precept applied through Council Tax or through the creation of specific precepting authorities such as the Somerset Rivers Authority⁴⁷.

Forestry Grants: Woodland planting should be designed so as to provide multiple benefits including: timber, biomass (firewood), carbon sequestration, water retention, biodiversity, shelter, amenity, education and employment.

Soil carbon sequestration; Policies should promote the sort of farming methods that are likely to conserve soil carbon stocks and improve soil carbon sequestration, especially when these harmonise with other objectives.

While no-till and low-till farming methods have been shown to reduce carbon emissions and improve soil structure, they rely heavily on the application of herbicides – especially glyphosate – and so cannot be considered to merit reward as part of a sustainable farming future.

³⁴ <http://www.fao.org/organicag/oa-faq/oa-faq6/en/>

³⁵ http://www.fao.org/fileadmin/user_upload/sustainability/pdf/11_11_28_OA_biodiversity_Rahmann.pdf

³⁶ [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/581922/EPRS_STU\(2016\)581922_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/581922/EPRS_STU(2016)581922_EN.pdf)

³⁷ http://www.fao.org/fileadmin/user_upload/sustainability/pdf/11_11_28_OA_biodiversity_Rahmann.pdf

³⁸ <http://www.ccsenet.org/journal/index.php/sar/article/view/50131>

³⁹ <http://mollymep.org.uk/wp-content/uploads/Simon-Fairlie-FULL.doc.pdf>

⁴⁰ http://www.fao.org/organicag/doc/soil_biodiversity.htm

⁴¹ <http://ofrf.org/sites/ofrf.org/files/docs/pdf/HP-report-web.pdf>

⁴² <https://www.gov.uk/guidance/organic-farming-how-to-get-certification-and-apply-for-funding>

⁴³ https://www.organic-center.org/wp-content/uploads/2016/07/TOC_Report_AntibioticResistance_FINAL.pdf

⁴⁴ http://ec.europa.eu/agriculture/rica/pdf/FEB4_Organic_farming_final_web.pdf

⁴⁵ <https://www.theguardian.com/environment/2014/jul/11/organic-food-more-antioxidants-study>

⁴⁶ http://www.ifoam-eu.org/sites/default/files/ifoameu_organic_in_europe_2016.pdf

⁴⁷ <http://www.somersetiversauthority.org.uk/about-us/funding-the-sra/>

Genetically Modified Organisms: we would like to see a moratorium on GM crops. The introduction of these crops tends to move control of the food production system to a minority of mainly corporate interests and is accompanied by a rise in the usage of pesticides and herbicides.

Species and habitat recovery programmes: Policies should support the recovery of vulnerable species such as the curlew in south Devon and the otter over much of England. Farmers should be incentivised to manage their land in a way that improves the welfare of the wild animals living on it and mitigates hazards that result from their operations, such as plastic litter.

Habitat maintenance, connectivity and expansion are all part of supporting the recovery of species and ecological mapping will allow resources and investment to be targeted appropriately.

Game-bird shooting: shooting estates and grouse moors do not contribute to a healthy environment. For example, grouse moors can suffer from effects such as the drying out of peat bogs, release of stored carbon into the atmosphere⁴⁸ and changes in water flow out of bogs⁴⁹ because of management practices that ensure the landscape is suitable for grouse. Shooting estates and grouse moors should not be eligible for payments under the new system.

Fulfilling our responsibility to animals

Farm animals are sentient beings, yet current practices include confined environments, mutilations, unnaturally fast growth rates and slaughter practices that cause suffering. There is a strong case for government funding schemes that incentivise and deliver improved farm animal welfare.

In the 2007–2013 period of the EU Rural Development funding, €986 million was spent on promoting animal welfare⁵⁰. In 21 out of 90 RDPs, farmers received support for making voluntary animal welfare commitments that went beyond the relevant mandatory EU or national standards. In the 2014–2020 period, 29 RDPs contained these measures, accounting for 1.4 percent of total rural development expenditure. A selection of these could be used in England.

The UK should aspire to be a global leader on animal welfare. This must mean prohibiting some of the cruel practices that are still legal in UK farming. The UK should ban the use of farrowing crates for sows (which are banned in Sweden, Norway and Switzerland), prohibit the use of cages for hens (which are banned in Luxembourg). The UK should also ban zero-grazing in the dairy industry and prohibit the intensive indoor rearing of broiler chickens.

Insisting that all farm animals have a 'life worth living'⁵¹ would go hand in hand with the many other beneficial changes proposed here. Setting ambitions for all animals in the UK to have a 'good life' within 10 years would benefit the animals themselves. For instance, mastitis is cited as the reason for dairy cow culling in 13–14 percent of the herd, a figure that has only marginally decreased in the past five years⁵². Foot rot in sheep is estimated to cost the industry around £24m annually and affects 10 percent of the national flock⁵³, and tail biting in pigs, beak trimming in laying hens, and lameness in broilers continue to be areas of concern that now need addressing adequately and effectively.

⁴⁸ <http://publications.naturalengland.org.uk/file/50072>

⁴⁹ <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014WR016782>

⁵⁰ 14 European Network for Rural Development 2014. https://enrd.ec.europa.eu/sites/enrd/files/mt_rdp_gnt_summary_v1.pdf

⁵¹ The Farm Animal Welfare Committee produced three definitions to classify the quality of an animal's life: A life not worth living, a life worth living and a good life

⁵² <http://beefandlamb.ahdb.org.uk/wp-content/uploads/2016/12/CHAWG-Third-Report-2016-051216.pdf>

⁵³ <http://beefandlamb.ahdb.org.uk/wp-content/uploads/2016/10/SHAWG-report-2016-17-181016.pdf>

Improving animal welfare could also have a positive impact and have knock-on effects on local communities that are no longer threatened by increasing intensification and public health issues⁵⁴.

Domestic live transport of farm animals over longer distances should be discouraged, and exports of live farm animals should be banned and instead carcass-only exports should take place. Fattening and slaughter should take place as close to home as possible so that farm animals are not transported large distances. Tens of thousands of farm animals are being exported from the UK for slaughter. Animals such as calves and sheep are still enduring long journeys only to be slaughtered at the final destination.

In seeking to bring about a ban on live exports on farm animals, the UK should make the case that this is an area of high public interest and has been for many years. If the WTO were minded to challenge such a ban, the UK should seek to justify its measure as an exemption using the concept of 'public morals' as its basis.

The UK should retain the fallen stock scheme as a way of ensuring that farmers continue to achieve high standards of safety and avoid transmission of risks to public and animal health when disposing of fallen stock.

The UK should introduce mandatory labelling which is also called for by the British Veterinary Association⁵⁵. The new farm support system needs to be matched by a strengthened food labelling system which should clearly show the method of production. For animal products this should include the conditions in which the animal was reared. For plant-based products this should include all the chemical inputs used as part of the production process. A 2016 Eurobarometer survey reported that 55 percent of British public respondents would look for an animal welfare label when shopping⁵⁶.

As is likely to be required by EU legislation currently under negotiation, both prophylactic and metaphylactic use of antibiotics in livestock farming should be prohibited, meaning that only sick animals receive these powerful drugs. Excessive antibiotic usage masks unhealthy living conditions and also poses a risk to human health.

A rigorous framework for assessing farms, supply chains and assurance schemes should be developed to allow better monitoring and reporting on animal health and welfare standards.

Continued access to veterinary medicine, licenced by the EU is essential for animal health and welfare in the UK.. The EU's Veterinary Medicinal Products Directive sets out controls on the manufacture, authorisation, marketing, distribution and post-authorisation surveillance of veterinary medicines applicable in all member states and provides the basis for the UK controls on veterinary medicines, which are set out nationally in the Veterinary Medicines Regulations (VMR). Because the UK government has already insisted it will no longer be part of the European Medicines Agency (EMA) and outside the auspices of the EMA and without any kind of associate agreement, the vast majority of medicines used to treat animals up and down the country will suddenly be pushed into regulatory limbo; having never been separately authorised by the UK's own VMD⁵⁷.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/319292/Farm_Animal_Welfare_in_Great_Britain_-_Past_Present_and_Future.pdf

⁵⁵ <https://www.bva.co.uk/news-campaigns-and-policy/newsroom/news-releases/vets-call-for-clear-animal-welfare-labels-for-uk-consumers/>

⁵⁶ <http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/ResultDoc/download/DocumentKy/71348>

⁵⁷ BVA (2017). Brexit & the veterinary profession. https://www.bva.co.uk/uploadedFiles/Content/News,_campaigns_and_policies/Policies/Future_of_the_profession/brexit-andveterinary-profession-v.1.0.pdf

Supporting rural communities and remote farming

Measures should be taken to prevent further concentration of the farming industry into ever fewer hands, and abandonment of family farms. Investment into small family farms at the heart of communities is critical if rural communities are to prosper and retain people.

Schemes that allow young people to experience farming/food production and understand it better as an option for future careers may support people staying in, or moving into, rural communities.

Membership of a farmer's cooperative can be beneficial to small farms by giving farmers greater control over parts of the supply chain, as well as achieving economies of scale in purchasing⁵⁸. By collaborating with other farmers as part of a cooperative there is also more opportunity for sharing best practice and being supported. Cooperatives should be regarded as good ways to strengthen the resilience of members of rural communities; public funding should be available for cooperatives that strengthen rural economic development, and play a role in spreading knowledge and best practice amongst members.

As we increasingly move to an economy that operates online, high speed broadband is becoming more important to take part in everyday life. The UK is one of a number of EU countries where the number of households with broadband speeds of 100Mbps was well below the EU average in mid-2016 demonstrating just how much still needs to be done⁵⁹. Rural communities can be strengthened by access to internet, and for farmers required to apply for funding online, training in the use of online systems and access to highspeed broadband is critical.

Financial support for the uplands should be focussed on creating a more diverse and resilient local economy.

Agricultural policies should help to steer land prices downward in relation to food prices. This will increase land availability to a larger number of people, especially new entrants to farming and boost the resilience of rural communities.

While land continues to be purchased for speculative purposes and power lies with the landowner rather than tenants actively working the land, problems in planning for the longer term and new people entering the sector for work will not go away, so national taxation and land use policies also need to be addressed as a way to support rural communities building resilience. A land value tax would be one obvious remedy to forestall speculative investments in agricultural land.

Policies should not only actively support new entrants into farming but also facilitate their access to land. 57 percent of farmers under the age of 40 surveyed by the EU thought that lack of land available for rent was among the biggest barriers to new entrants to farming, and 61 percent considered lack of availability of land for purchase to be the greatest barrier for new entrants

Start-up funding should be made available for innovative farming structures, including CSAs, farm hamlets and farms linked to settlements.

Farmers have been one of the occupational groups at greatest risk of suicide in the UK^{60,61}. In addition to low pay and job security, easy access to firearms is a risk factor (the suicide of 12.6

⁵⁸ <https://www.uk.coop/agri/uks-agricultural-co-operative-sector>

⁵⁹ http://ec.europa.eu/newsroom/document.cfm?doc_id=47090

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<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/suicidebyoccupation/england2011to2015>

⁶¹ <https://www.cambridge.org/core/journals/the-british-journal-of-psychiatry/article/suicide-in-farmers/4BCEC979648328BD724F05186F8F4DF9>

percent of people in agricultural and related trades were by this means). Depression and loneliness are also prevalent in rural populations due to isolation, and the under-25s can be as vulnerable as the over-65s. Support for campaigns such as the Farm Safety Foundation's 'Mind your Head' campaign are important for building the resilience, skills and strategies of individuals and the rural communities they live within to live well⁶².

Changing regulatory culture

The UK should reassess the ban on feeding food waste to pigs that was introduced as EU legislation following the UK's 2001 Foot and Mouth outbreak which was caused by a UK farmer illegally feeding uncooked food waste to his pigs. At a time when food security is increasingly becoming an issue and awareness is growing of the sheer scale of the damage that foods grown overseas have on the rainforests and carbon emissions from growth, transport and consumption, there are compelling reasons to revisit this ban. However, it should be done within the implementation of a framework of robust health and hygiene conditions, and where it can be ensured that pig welfare is not compromised. UN estimates, that if all the farmers in the world fed their livestock on agricultural by-products enough grain would be liberated to feed 3 billion people, demonstrate why the UK should reconsider this issue in terms of food security. If reverting to this way of feeding is not considered possible, then at the very minimum there should be consideration of feeding slaughterhouse waste to insects which are in turn fed to pigs.

The fuel tax exemption for farmers (red diesel⁶³) encourages excessive use of fossil fuels and should be scrapped. Or, failing that, the exempted vehicle status for those entitled to use red diesel on public roads (eg for agricultural vehicles) should be revisited in light of the use of these vehicles in transporting food crops to biodigesters. Biodigestion receives a number of subsidies and support mechanisms and by using red diesel to transport feedcrops, further distorts the market in favour of the biodigester operator, making it less likely for those feedstocks to be used for purely agricultural purposes.

TB vaccination in cattle and badgers should be included as ways to reduce TB in the UK cattle herd. The ongoing badger cull, and its potential expansion in to new areas puts at risk our ability to assess the role badger vaccination could play as a method to reduce bovine TB incidence. Defra needs to begin assessing the evidence and working with experts to ensure an evidence-based methodology is used. Vaccination of cattle, while not yet a magic bullet, is a possible way forward; research into a cattle vaccine should be prioritised as a contributing method to reduce TB for the future⁶⁴.

As part of the new payment system, we propose that former or retired farmers are used to carry out inspections due to their higher level of on-the-ground knowledge than civil servants. They should work alongside civil servants who are responsible for administering the payments system and bring a depth of understanding to the process.

Drone and satellite monitoring of farm layouts and areas laid to trees/hedges and other methods of increasing biodiversity are increasingly used to map farms and payments are based on this information. However, the technology does not seem to recognise that, for example, trees grow and hide some of the land around them if viewed from above, but at the same time the land area does

⁶² <https://www.yellowwellies.org/mind-your-head/>

⁶³ <https://www.gov.uk/government/publications/excise-notice-75-fuel-for-road-vehicles/excise-notice-75-fuel-for-road-vehicles>

⁶⁴ <https://www.zsl.org/sites/default/files/media/2018-04/Bovine%20TB%20Consultation%20on%20revised%20guidance%20for%20licensing%20badger%20control%20areas.pdf>

not change or reduce. The software for doing this kind of mapping and payment estimation should be revisited for accuracy.

Better and more accurate labelling of grain and feedstocks for animals is needed to allow improved traceability and understanding by consumers on what they are purchasing. Point of origin labelling will allow farmers to better label the end products so consumers have the option to purchase, for example grass-fed beef rather than beef fed on soya grown in Brazil which has contributed to global deforestation.

Regular monitoring of soil organic matter, and subsequent reporting, should be required to build up a national picture of soil health. Soil health research will need to be carried out alongside this to inform and update policy and better understand the results arising from the monitoring.

To ensure that soil health does not continue to decline, tenancy agreements for land/farms should include requirements that degradation does not take place during the tenancy.

A Nitrogen Budget for England – following Scotland’s lead - should be introduced alongside an exploration of measures, such as fiscal ones, to lower nitrogen

The National Planning Policy Framework and the General Permitted Development Order should be revised so as to protect the availability and affordability of farm infrastructure, and promote the establishment of small farms and farming hamlets providing local produce.

Customs union and movement across borders: we strongly advocated for the UK to remain in the EU and continue to believe EU membership is in the best interests of Britain. We advocate the closest possible relationship between the UK and the EU, which should involve the UK staying in the Customs Union and Single Market. The UK should continue to meet and keep pace with EU standards, retain existing levels of trade with the EU, thereby avoiding cumbersome and costly trading and customs barriers and increased ‘red-tape’.

Risk management and resilience

UK food insecurity must be addressed as part of the move to a new food system. The UK’s heavy reliance on imported food – about half of all food and feed consumed in the UK is imported⁶⁵ and a quarter comes from EU countries – means the UK is at real risk of food shortages. The UK’s food system holds only about 3-5 days’ worth of stock⁶⁶. As a large percentage of our ‘just in time’ fruit and vegetable supply⁶⁷ comes through channel ports we are highly dependent upon a solution to borders and customs that doesn’t create delays at the borders. In the longer term, some of the ports we rely upon may be impacted by rising sea levels making a clear case for more self-reliance in our food system.

In addition, with an estimated 40% of the UK’s grain crop fed to animals⁶⁸, 85% of the UK’s total land footprint associated with meat and dairy production but only 48% of total protein derived from livestock products⁶⁹, a transition to a more sustainable and ecologically efficient food system is clearly required as part of this more self-reliant food system.

⁶⁵ <http://www.arc2020.eu/wp-content/uploads/2016/01/outsourcing.pdf>

⁶⁶ <https://www.independent.co.uk/news/business/news/brexit-latest-news-uk-food-insecurity-rising-prices-production-migrant-labour-agriculture-fisheries-a7844946.html>

⁶⁷ <https://www.theguardian.com/commentisfree/2017/feb/20/supermarket-food-gamble-brexit-climate-migrant>

⁶⁸ <https://www.sussex.ac.uk/webteam/gateway/file.php?name=foodbrexitreport-langmillstonemarsden-july2017pdf.pdf&site=25>

⁶⁹ <https://www.sciencedirect.com/science/article/pii/S0959378017301176>

Environmental and capital investment subsidies supplied through a Whole Farm Management System are not sufficient in themselves to guarantee the stability of UK agriculture in the face of global market forces or exceptional weather and disease events. Measures should be taken to guarantee the viability of farms and farming under such circumstances. Consideration should be given to the following options: (i) reinstating marketing boards; (ii) introducing a government-operated farm and crop insurance scheme; and (iii) providing exceptional or emergency payments to farming sectors which are weak or experiencing difficulties.

The length of land tenancies can prevent farmers planning for longer than just the next few years and implementing plans they may have developed⁷⁰. For those managing dairy farms a 20-year planning window is needed to build herds and plan and pay back the costs of buildings. To move to an agroforestry set-up with the upfront investment, long lead times and a long time until production means this is an unattractive proposition if tenancies are not for more than a certain length of time. New measures to support longer farm tenancies should be investigated as a way to support new entrants to the sector who don't own land and to support longer term planning.

Different taxation measures could be used to increase the length of tenancies and so enable farmers to plan and operate longer term changes. The Tenant Farmers Association have presented a range of taxation options that are worth considering⁷¹. However, consideration should be given to any changes to taxation regimes to provide more secure and longer-term tenancies, that they don't have unintended or knock-on effects on land values and push it ever higher and out of the reach of the majority of people.

Better regional planning of where biodigesters are situated is needed so they don't distort the food production and land value prices in an area. The presence of biodigesters can influence the crops grown in an area⁷² if there is a guaranteed and secure income that is underpinned by renewable energy grants/subsidies. No crops should be grown for biodigestion as their first use.

On-farm energy production and usage reduction should be incentivised; use of renewable technologies such as solar PV on building roofs, use of manure produced on-farm in anaerobic digesters to produce methane and digestate can provide additional income per unit of land, can make farms more energy efficient and energy resilient and contribute to carbon reduction targets⁷³.

Water capture and usage to reduce water costs for farms should be supported; deployment of systems to capture water from all available roofs and treatment of water to use for cleaning or watering livestock can save money, energy and increase the resilience of the farm.

Public procurement could provide a game-changing effect on local communities. Millions of meals are served by the public sector every day, if much of the food was sourced locally from sustainable farms it would provide them both with a stable market but also have beneficial knock-on effects to the local community⁷⁴.

Policies should promote the use of Green Belt and other periurban land for local food production. Not only will this bring some neglected areas of greenbelt land back in to useful production, but the proximity to markets will reduce transport and refrigeration costs and fossil fuel usage.

⁷⁰ <http://www.fwi.co.uk/business/short-tenancies-are-damaging-farming.htm>

⁷¹ <http://www.tfa.org.uk/wp-content/uploads/2013/03/TFA2002VisionforAgricultureV7LoRes.pdf>

⁷² <https://www.theguardian.com/environment/georgemonbiot/2014/mar/14/uk-ban-maize-biogas>

⁷³ <https://www.nfuonline.com/cross-sector/farm-business/energy-and-renewables/energy-and-renewables-news/another-year-of-farm-renewables-growth/>

⁷⁴ <http://mollymep.org.uk/wp-content/uploads/Soil-Association-FULL-Feb17.docx.pdf>

We do not want to see public funding for insurance schemes ‘risk-management schemes’ and income stabilisation systems. ‘Risk management schemes’ or public funding for insurance schemes for farmers’ have been increasingly discredited as an effective use of public money, and divert funds away from rural development and into that of the financial sector.

Price volatility in food production must however be tackled through regulating the markets and controlling land ownership to avoid food speculation. Where food supply-chains become dominated by a small pool of investors and multinationals, small/medium farmers, smaller retailers and consumers are vulnerable to financial speculation on important foodstuffs. In other words, regulation must put restriction on the betting on foodstuffs. Food is not a commodity and should not be treated as such, but instead should be seen as a vital life source.

This is also linked with fostering short supply-chains and creating less export-dependency giving the power to consumers and to farmers, not to financial markets and large investors.

Protecting crop, tree, plant and bee health

Overall, the best form of disease prevention and mitigation is by fostering biodiversity i.e. through maintain a diverse landscape with a wide variety of tree, plant and animal life. For instance, crop diversification has proven to be a very effective way of controlling disease spread, and biodiversity in forests has been proven to be a major factor in forest resistance and recovery⁷⁵. Therefore, publically funded environmental schemes aimed at fostering diversity in forests, farms and landscapes should be central to any disease prevention or mitigation planning.

It should be noted that genetically modified crops or a heavy reliance on pesticides are not a solution in this regard. Instead, non-genetically modified plant breeding has proven to be successful in many cases⁷⁶.

As well as support for biodiversity through public funding, regulation must support such a system. Regulation which ensures that we have bio-secure supply chains across the forestry, horticulture and beekeeping sectors are vital for fending off invasive species and maintaining biodiversity within the UK.

The figures about the value of pollinators to the UK economy are well known by now⁷⁷. The focus on the importance of bees should reference bumblebees and other wild bees, but also the full range of insect pollinators. In this context, a strong commitment prohibiting neonicotinoids needs to be maintained. But with the recent reports on the dramatic and swift decline of insect numbers here in the UK – and the knock-on effects on other parts of the ecosystem such as farmland birds – it is clear protection of insects, and in particular pollinators should be much higher up the agenda to maintain a healthy and functioning landscape within which our food is grown.

Conservation agriculture, using no-till/min-till, organic soil cover and a diversified crop sequence can rely heavily on glyphosate application, as can conventional agriculture. However, the issues around glyphosate resistance, and in particular recent research showing that the evolution of resistance is primarily driven by intensity of exposure to herbicides suggests a new approach is needed⁷⁸. The economic costs of this resistance are very high and weed management costs have increased as a

⁷⁵ p.7 <https://www.cbd.int/doc/publications/cbd-ts-43-en.pdf>

⁷⁶ <https://www.gmwatch.org/en/disease-resistance>

⁷⁷ <https://www.gov.uk/government/news/hidden-value-of-nature-revealed-in-groundbreaking-study>

⁷⁸ <https://www.nature.com/articles/s41559-018-0470-1>

consequence of evolved resistance. The UK should prohibit glyphosate, or failing that, heavily restrict and reduce its use with exceptions made only for controlling invasive species and for use by those with licences.

Integrated Pest Management (IPM) should be supported more strongly, as an alternative to the large amounts of pesticides used. A range of methods to increase farmer understanding of techniques and considerations should be supported, such as formal training on IPM as part of agricultural training and farmer-to farmer learning.

Ensuring fairness in the supply chain

The supply chain should favour producers and consumers over big business as a rule. Fair purchasing practices must be ensured throughout the whole supply chain, not just in those parts currently under the regulation of the Groceries Code Adjudicator. The current Groceries Supply Code of Practice (GSCOP) should be reformed by broadening its reach and scope, which should be done by reducing the turnover threshold for retailers that fall under GSCOP rules. The government should develop a clear code of conduct that covers purchasing practices across the supply chain.

Farmers must also have access to publically funded and well-supported fair-trade cooperatives to give them greater bargaining power within the supply chain. There must also be greater transparency in the supply chain (i.e. through labelling) so that supply chains are democratised and so that producers are given more accountability to consumers. Encouraging farmer diversification and moving up in the supply chain can also ensure that farmers have more of a stage in various parts of the supply chain, but also leaves them less vulnerable to financial shocks or to climate disaster as the supplier/producer dependency is weakened.

More informative food labelling is needed to allow consumers to be more informed when purchasing. The cost of informing consumers about the use of chemicals, precautionary antibiotics and GM processes in the production of food items should be borne by the farmers and food producers using these inputs. Foods should be labelled 'produced with pesticides/artificial fertilisers/antibiotics'

Companies (particularly large retailers) must pay taxes in the UK if they operate there. This revenue can be reintroduced into supply-chain management, and into food and farming policy more broadly.

The framework for our new agricultural policy

Devolution: maintaining cohesion and flexibility

International trade

As the UK exits the EU, it is important that it negotiated trade deals that are fair for producers and have the minimum impact on climate and environment possible. The concept of trade subsidiarity means that we should keep supply chains as short as possible, in order to minimise the impact of the supply chain on the environment, as well as cutting out the middle men and ensuring greater security for the producer, who would have more immediate interaction with the market demand.

On the global market, the industrialised world is a net importer of the biosphere of the other regions, as its ecological footprint impacts upon their ecosystems, land and water use. Further, the industrialised world continues to export its carbon emissions through a dependency on less industrialised economy's for heavy industry and ecologically damaging goods. It is important that

future trade deals are founded on solidarity and sustainability, so that they do not perpetuate the exploitation of the resources or of labour within any part of the supply chain.

The importing of agricultural goods with a heavy environmental impact should be explicitly avoided in trade deals (e.g. soya from Latin America or palm oil from South East Asia). Under WTO rules, GATT Article XX stipulates that trade restrictions/conditionalities can be imposed when it “necessary to protect human, animal or plant life or health”⁷⁹.

The UK should uphold its commitments under Paris Agreement and closely monitor the environmental impact of imports and exports in future trade agreements.

It will be important to ensure that higher welfare products and products of high quality (sustainably produced goods) are not undermined by imported products reared or produced to lower standards. This would lead to the industry becoming uncompetitive in the UK.

This would best be implemented with a Free Trade Agreement (FTA) with the EU that allows as free a trade as possible, with low tariffs and clear equivalency on veterinary issues and Rules of Origin products and to ensure there is language giving mutual agreement in the FTA to drive up animal welfare and environmental protection standards.

As regards any FTA with other non-EU countries, this must not allow in imports of products produced at lower standards. Any future Free Trade Agreements must include language on animal welfare to ensure our animal welfare standards are protected. This would help ensure that farmers in England, and the rest of the UK, can be given incentives under the new farm support system to improve animal welfare and animal health.

Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO) equivalents or a negotiated buy-in to the EU’s system is needed to protect certain foods and enable them to attract a premium price. The value added to the UK economy on an annual basis from the 85 designated products comes from PGI products attracting upwards of 2 percent to double the value of equivalent non-PGI products⁸⁰.

Agricultural policies should protect food sovereignty in the UK and respect it in other countries; meeting home demand for indigenous food should take precedence over establishing export markets.

Food labelling demonstrating high welfare and quality standards could support international trade. For example, milk that is certified antibiotic-free is in great demand by the USA.

Legislation: the Agriculture Bill

⁷⁹ https://www.wto.org/english/docs_e/legal_e/gatt47_02_e.htm

⁸⁰ https://ec.europa.eu/agriculture/sites/agriculture/files/external-studies/2013/added-value-pdo-pgi/exec-sum_en.pdf