Food, Farming & Countryside Commission

Our Future in the Land

RSA
21st century enlightenment

Our Future in the Land

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Preface

Supporting a major Commission and seeking to produce a credible and impactful final report inevitably has its ups and downs. There are times when the sheer range of opinions and ideas can feel overwhelming; others when balancing the desire to be brave and original with being realistic and building a consensus feels almost impossible. Having watched this journey by the RSA Food, Farming and Countryside Commission, and even occasionally offered advice from the sidelines, I am impressed, indeed proud, of its outcome.

Our Future in the Land offers a compelling, urgent but ultimately optimistic account of how we make our systems of food and farming and rural governance fit for the immense challenges and opportunities of the 21st century. Its companion *Field Guide for the Future* takes this analysis and furnishes it with the kinds of innovative actions and initiatives that can both prefigure and build a better future.

At the RSA we describe our method as 'thinking like a system and acting like an entrepreneur'. This report and the field guide exemplify that combination of systemic analysis and experimental action. Sue Pritchard and her team of researchers and Ian Cheshire and his team of Commissioners have done a great job. Already we are thinking about next steps; how we apply the ideas and mobilise the networks developed by the Commission to build the food, farming and countryside system our nation, and the planet, needs.

Matthew Taylor

Chief Executive, The RSA

Foreword

When we launched the RSA Food, Farming and Countryside Commission, an independent inquiry generously funded by Esmée Fairbairn Foundation, in November 2017, we knew we had important questions to deal with and uncertain times ahead. The UK had voted to leave the European Union, triggering intense discussions about the future of the country, our relationship with our neighbours and our place in the world.

Beyond Brexit, the scale of the challenges in front of us became ever clearer. For the planet, climate breakdown, wildlife collapse, soil, air and water degradation. For our people, reversals in the hard-won gains in public health and wellbeing, rises in diet-related illnesses and mental ill-health; in our communities, feelings of disconnection and being left behind; and the impact on our economy, our national confidence and any sense of shared prosperity severely dented.

In some ways little has changed; at the time of publication the UK has not yet left the European Union and we have not yet been able to decide the manner of our leaving.

But in other critical ways, we have noticed encouraging changes. The public mood is shifting. We have been inspired, throughout our inquiry, by the passion and energy people across the country are bringing to respond to these crises and take action. From farmers in the countryside to food projects in cities, from shareholders in boardrooms, to schoolchildren on the streets, people are coming together in collective endeavour to stop climate and ecosystem breakdown and invest in the health and wellbeing of their communities.

The scale of the challenges in front of us are enormous and we know we need to do so much more. Our mandate has been to look afresh at the food and farming system, the countryside and rural economies, and to help shape a vision of a more sustainable future. We have heard how so many of the issues are interconnected and we have seen what people are doing already to respond. Transformation of the whole food system is now essential.

We are publishing two documents. In this report, we identify three critical and interlocking areas where a radical rethink and practical actions are required. The headlines of these are:

- Healthy food is every body's business
- Farming is a force for change
- A Countryside that works for all

We also propose a framework for change, using all the tools we have at our disposal, strengthened by a sense of the new leadership needed, to work together with pace and purpose to deal with the challenges facing us. In our companion publication, *Field Guide for the Future*, we paint a more optimistic picture of a future that works for all of us. In it we share the many stories and insights from our inquiries around the country, where people have already taken up the challenge and are bringing that future to life.

Commissioners remain committed to play our part and to do the work needed in our businesses, our sectors and our communities. We invite you to join us on this mission. Our future is in our hands.

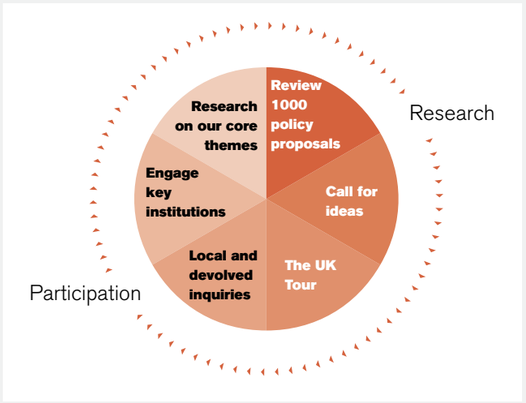
Sir Ian Cheshire

Chair, RSA Food, Farming and Countryside Commission

How we conducted our inquiry

Reflecting today's climate of uncertainty and change, the Commission designed a dynamic process to integrate research and participation, and convene different kinds of conversations, to generate radical and practical recommendations. The Commission:

- Reviewed the broadest policy landscape, looking at food, farming, health, rural affairs, trade and economics: we looked at over 1000 policy proposals, categorised them and made these available in interactive form
- Invited a call for ideas, particularly the novel ideas which hadn't shown up in the policy review. We heard from many advocates who sent us hundreds of proposals which, they felt, were not adequately reflected in the current policy landscape
- Travelled the whole UK, on a bike, so that we could meet people in their homes, in businesses, schools and community groups. We wanted to hear from people who would not ordinarily get a chance to contribute to a Commission's work, and talk with them about their experiences
- Established six 12-month inquiries in all four nations, shaped, convened and led by local leadership groups, on the things that mattered to them. The breadth and depth of work, and the different ways that these groups went about the task, provided profound learning
- Engaged with keystone institutions across government, business and civic society through meetings, workshops, discussions and public events
- Drew on the RSA's convening authority, its global Fellowship, and research and innovative practices
- Built on authoritative national and global research – including the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Intergovernmental Panel on Climate Change (IPCC), Committee on Climate Change (CCC), Institute for Sustainable Development and International Relations (IDDRI), Eat Lancet Commission, National Audit Office (NAO), relevant House of Commons and Lords committees and the RSA's Future of Work Centre – and took account of numerous business, civil society and parliamentary initiatives that have reported during the time that the Commission has undertaken its inquiry
- Reviewed our work in the light of rapidly growing and vocal public concern about the climate and nature emergency now facing us
- Focussed on both the radical ideas and practical actions, made policy recommendations and amplified and supported practical actions around the UK



Chapter 1 The time is now

In the life of this Commission, we have seen a step change in the way people think about the ecosystem crisis facing humanity. The consensus between scientific evidence and civic society is strengthening. Through direct action – the school strikes led by Swedish schoolgirl Greta Thunberg and the Extinction Rebellion demonstrations – and similar calls to actions from trusted figures like wildlife broadcaster David Attenborough, public concern for urgent and fundamental change has mushroomed.[1] But the climate and ecosystem emergency are not the only crises we face. The scale of the public health challenge is also dawning on us, from poor diets and mental health, to the effects of pollution and antibiotic resistance. What we eat, and how we produce it, is damaging people and the planet.

Economic growth has lifted billions out of poverty. Life for many has become richer, healthier and safer. Yet these benefits are not always shared equally and the way growth has been achieved has often come at unsustainable cost to the planet. The modern food and farming system has contributed significantly to climate breakdown, changing the conditions in which people live around the world. Wildlife is already dramatically depleted and the natural resources on which all life depends are damaged, and in places, beyond repair. In the UK, the Chair of the Environment Agency proposes that we make plans to retreat from coastal areas.[2] Extreme weather events have become more common, disrupting food production. The cost of flooding in the UK is approaching £2bn annually, with £200bn of assets at risk around the UK.[3]

In the richest countries, many of the gains made in the last century are stalling as a result of the food we eat and the air we breathe. The spiralling cost of diet-related ill-health is compromising health services and harming lives. The UK-wide NHS costs attributable to obesity are projected to reach £9.7bn by 2050, with wider costs to society estimated to reach £49.9bn per year.[4] Disparities between the rich and the poor threaten to disrupt hard-won political stability and economic security. Climate change and global inequality is driving migration.

This is not some dystopian future; this is happening here and now, on our watch. The case for serious, urgent and systemic change is clear. In response, the government has set net zero greenhouse gas (GHG) emission targets for 2050. The Welsh, Scottish and then UK governments declared a climate emergency. National Farmers' Union (NFU) has committed its sector to a target of net zero GHG emissions by 2040.

Now all our efforts must be directed towards the sustained, systematic actions needed to shift the current trajectory. The activist movements, from schools, streets and shareholders, strengthen the calls for action. If we act now and act together, we still have time to implement a transition plan for climate, for nature and for people's health and wellbeing. We must be bold and ambitious, creative, courageous and comprehensive.

1.1 Food, farming and countryside – the case for change

The World Health Organisation (WHO) says that one of the greatest risks to planetary and human health is a globalised and poorly regulated agri-food system.

Whilst people in the UK pay some of the lowest prices for their food in Europe,[5] the cost of that cheap food has been paid for elsewhere in society, now and for generations to come.

Global farming and food businesses argue that they have improved global health and prosperity by making more food available, more cheaply, in more places than ever before. They argue that integrated vertical supply chains bring consistency and control into a highly dispersed sector; that processing and packaging makes food more safe and secure especially in poor and isolated communities; that trusted brands help people choose food they can rely on and that many people can afford to buy the widest variety of foods ever available. They claim there is no alternative to these methods if we want to ensure that nine billion people can be fed, safely and affordably.

But the evidence is now clear that this strategy has come at too high a price. The food system has become geared towards selling cheap, ultra-processed convenience food at the lowest prices, with serious implications for people's health and wellbeing. The costs of diet-related illnesses are not just borne by patients and their families; they are borne throughout society, from the cost to the NHS, (Type 2 diabetes alone costs £12bn) and working days lost (£15bn) through to the cost of removing the drugs that treat them from the water supply (currently incalculable).[6] The lion's share of the profits in the current food system are going to the ever-smaller number of global agri-food businesses, where power has concentrated, who exercise increasing influence over what we eat and how we eat, from seed to fork. While some of this economic return is shared through jobs and pension investments, the price is being paid by all of us in society.

The way we practise agriculture is now under an intense spotlight. In the last 70 years, farmers have responded to market signals and government and EU policies, applying the 20th century industrial mindsets in ways that have changed farming dramatically. Liberalised markets on the one hand and unbalanced subsidy regimes on the other have led to an agriculture which is detrimental to the environment and public health, as well as placing undue stress on farmers and rural communities. In the UK, farming accounts for 83 percent of ammonia emissions that contribute to air pollution[7] and 11 percent of GHG emissions.[8] Farming affects water quality through fertiliser, pesticide and slurry runoff. Soil depletion affects not just its fertility and ability to feed us in the future, but soil biodiversity too. Loss of habitats and functional wildlife corridors disrupt or destroy ecosystems and the wildlife that depends on them.

Meanwhile, farmers pay high prices for inputs – seeds, fertiliser, pesticides, herbicides, medicines and machinery – whilst getting paid less for their produce at the farm gate. More intensive farming practices are not necessarily more productive or more profitable. UK farm productivity is falling behind international competitors, at 0.9 percent growth compared to the Netherlands 3.5 percent or the US 3.2 percent.[9] With the further uncertainties caused by Brexit, farmer confidence in the future is shaky. Many small-scale and family farmers have been pushed out of business; local supply chains are struggling, with the loss of small abattoirs, processing facilities, and routes to market.

Meanwhile, in communities across the UK, the way we occupy our land has become a source of contention and polarisation. Debates are rife about land use and ownership, and whether we use land for many benefits, or whether land is spared for nature. In towns and villages, communities are being hollowed out and public services have been slashed. The traditional high street has been decimated, with the trend first shifting towards large out of town superstores, and now disrupted by online ordering, which can cut out the costs of shop staff and premises. Public spaces for connection and community are shrinking. Up to a third of people now eat most of their meals alone.[10] Loneliness, isolation, social fragmentation, and mental ill-health are rising.

While there is a resurgence of interest from farmers in nature and climate-friendly agriculture, many are locked into farming practices in which they have invested in good faith. There are structural as well as cultural reasons why they will find it hard to change. The incentives and resources they need to transition cannot come from shifts in customer demand alone.

Retailers and processors have been able to externalise many of their costs and impacts. As a result, they too are locked into a system that has, by and large, favoured quantity over quality, convenience over craft, and price over provenance.

1.2 What is to be done and where do we start?

This is a global emergency. Governments around the world are seeking agreements for action through international accords, such as the Sustainable Development Goals (SDGs). These are the best consensus the world has for interdependent thinking and connected evidence-based actions. But progress is patchy or simply too slow on the critical issues.

In the UK, the political context is volatile and uncertain. At a time when we need to develop and mobilise consensus for game-changing actions, the country's political leaders are caught up in a different debate.

For too long, food and farming policies have been peripheral to the big policy interests. They have not been seen as areas where major and integrated system change was either necessary or possible. This is no longer the case. Government policy intentions, especially on climate and public health, means far-reaching system change in food, farming and the countryside is absolutely vital.

Instead of being a marginal or niche interest, food, farming and rural policies can now be exemplars at the heart of the wider changes we know we need. Some of our recommendations, for example on strengthening and implementing government's Public Value Framework, have much wider implications. Policy in these sectors can lead the way in heralding a broader shift of priorities and action.

1.3 Radical and practical actions

In the weeks following the Brexit vote, industry and civil society leaders met to reflect on the implications for their sectors and the complexity and scale of the challenge ahead. With the support of the Esmée Fairbairn Foundation they brokered the establishment of the RSA Food, Farming and Countryside Commission, with a remit to involve more people in shaping a new mandate for food, farming and the countryside, and to contribute urgently needed solutions across the whole system.

As a Commission we have recognised, from our different standpoints in farming, food processing and retail, public health, rural and urban communities, environment and land management, economics and economic development, that the way we see and understand the world has become fragmented and incomplete, leading to disconnected policy-making, under-regulated markets and unintended, unappreciated, and unsustainable consequences.

Our work confirms that food, farming and countryside polices are currently too fragmented to progress fast enough and far enough. In every country, agriculture policies are disconnected from health policy; environment policy is disconnected from trade policy; social policies are disconnected from industrial strategy.

We have also recognised that business as usual is no longer an option and that bringing people together across sectors and with governments, business and citizens, is essential. With so much at stake it is time for renewed commitment and leadership that combines a radical rethink and practical actions for far-reaching and rapid change, including a shared global commitment to regulate activities that damage people and planet.

Our inquiries and research have convinced us there is a mandate for **radical and practical** change, and the leadership capacity to make it happen. The size of the prize and the risks can seem daunting. But government, businesses and civil society groups today are used to planning strategic change and putting it into practice.

The three central chapters of this report describe our recommendations under three interconnected themes, and with three degrees of confidence (see Box 1). While we are sure of the mandate for action in some cases, others warrant further investigation, testing or debate. We have sought to describe their key features in enough detail to steer their further development, while not pretending to be comprehensive. We have published outputs from our inquiries as we went, and present highlights in the accompanying *Field Guide for the Future*.

1.4 Collective action

Governments – national and local – and international institutions must set a progressive legislative and regulatory framework and use their power to drive rapid positive change. But acting alone, they cannot do enough, quickly enough, to shift corporate agendas or to nudge citizens behaviours.

Businesses, large and small, tell us they need a level playing field and clear, consistent signals from governments, shareholders and citizens about the kinds of businesses they need to be, and the farming systems they must proactively support. They need to focus on how to absorb their negative impacts and make net positive contributions throughout their whole value chain – or pay the true cost of their enterprise.

Citizens need better information and easier options to do the right things. And it needs to become progressively harder – more difficult, more expensive, more socially unacceptable, and on some of the most urgent issues not legally permissible – to do things that damage health, animal welfare, community or the planet.

Whilst the enormity of the challenge can seem daunting, even overwhelming, the good news is that governments, business and citizens have many of the tools they need for change in their hands. As researchers for the Commission travelled the country, we met people already taking action on farms, in boardrooms, in towns and cities and on the streets.

The three themes and our recommendations are:

1. Healthy food is every body's business

1. Levelling the playing field for a fair food system – good food must become good business
2. Committing to grow the UK supply of fruit, vegetables, nuts and pulses, and products from UK sustainable agriculture, and to using them more in everyday foods
3. Implementing world-leading public procurement, using this powerful tool to transform the market
4. Establishing collaborative community food plans help inform and implement national food strategies and meet the different needs of communities around the UK
5. Reconnecting people and nature to boost health and wellbeing

2. Farming is a force for change, unleashing a fourth agricultural revolution driven by public values

1. Designing a ten-year transition plan for sustainable, agroecological farming by 2030
2. Backing innovation by farmers to unleash a fourth agricultural revolution
3. Making sure every farmer can get trusted, independent advice by training a cadre of peer mentors and farmer support networks
4. Boosting cooperation and collaboration by extending support for Producer Organisations to all sectors
5. Establishing a National Agroecology Development Bank to accelerate a fair and sustainable transition

3. A countryside that works for all, and rural communities are a powerhouse for a fair and green economy

1. Establishing a national land use framework in England inspires cooperation based on the public value of land, mediating and encouraging multipurpose uses
2. Investing in the skills and rural infrastructure to underpin the rural economy
3. Creating more good work in the regenerative economy
4. Developing sustainable solutions to meet rural housing need
5. Establishing a National Nature Service that employs the energy of young people to kickstart the regenerative economy

We saw many inspiring demonstrations of what is possible and achievable. However, we observed that people were often having to work too hard despite the system, rather than being actively helped to succeed. These prototypes currently add up to bright stars in an otherwise dark sky.

We need change, and a framework that can guide and accelerate the incremental, the transformational and the disruptive changes, helping distributed leadership and local action to thrive. We recommend the key elements of such a framework in the final chapter of this report.

1.5 The practical tools at hand

While the UK's relationship with the EU and our subsequent trade arrangements are still to be determined, government already has the tools at its disposal to act now.

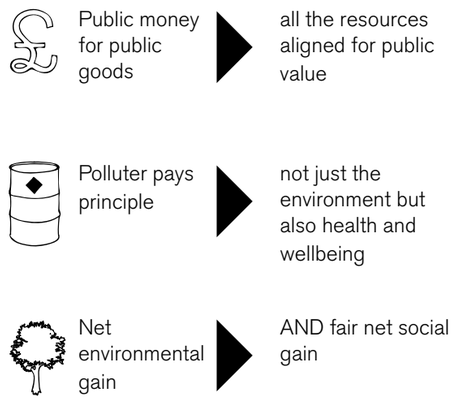
The substantial work of the **Natural Capital Committee** and others have moved the dial on debates about how public money should be spent for environmental and public benefits.

The government's **Public Value Framework** can be imaginatively and practically extended to provide for stronger cross departmental actions across government, local and regional bodies.

We also describe a basket of **new economic measures** – incentives and levers – many of which are by now well-rehearsed. Those we have highlighted in this report are underpinned by one key principle: fairly sharing the planet's resources. The just stewardship of the earth for all humanity is now the overriding economic imperative and we propose ways to do this, sharing wealth and prosperity more fairly with all.

As Box 1 shows, three important **natural capital principles** already have significant policy traction. But these can go further still, demonstrating that the interests of citizens and ecosystems are inextricably intertwined.

BOX 1: BUILDING ON NATURAL CAPITAL PRINCIPLES



The **Public Value Framework** was introduced across government in 2018 and strengthened in the Chancellor's Spring Statement of 2019. Developed through the Barber Review,[11] it is intended to improve many of the long-standing and well-rehearsed deficiencies in government policy and project delivery; what Sir David Normington summed up as the twin disconnects between policy development and real world experience, and between policy intention and delivery capability.

An important framework, we think that it can be further developed to respond to the overarching, inter-departmental and systemic issues, by strengthening its four pillars with some further questions taking a whole systems perspective and applying it at a local as well as national level. We explain more in Chapter 5.

DEVELOPING THE PUBLIC VALUE FRAMEWORK

- Is the goal ambitious, clear - and delivering our global commitments?
- Does it have the information needed - including the creative, the counterfactual, the contradictory and the contested, from other sectors, to be able to deliver in new ways?
- Are citizens engaged - including those often unheard, or in other parts of the world, or future generations who will live with the impacts, and who understand the parts of the living world which doesn't have a voice?
- Is the 'whole system' - government, business and civic society - sufficiently aligned to achieve the goal - without government having to clean up business 'externalities'?

But our prime reason for advocating an enhanced Public Value Framework is because this already exists and it is available to be mobilised right now to make rapid and practical progress on the really important issues – whatever the political climate.

One immediate and exciting opportunity for testing this approach could be the recently launched consultation on a Food Strategy for England. The ambitions for this long overdue work concern several departments and require a whole system view. Using a new Public Value Framework to establish this as a cross-department goal could help with shared focus, commitment and accountabilities.

Achieving better connection and alignment on critical food, farming and countryside investments will go some way to improve the current disconnects. We know how apparently logical incentives in one part of the system can drive perverse actions and unforeseen consequences elsewhere, with huge costs to the public purse, people and planet. Businesses require the right enabling environment to change, with meaningful incentives to acknowledge and reward their innovation and enhance public value. To back these up, we call for a strong and escalating regulatory baseline, and a level playing field, so that **business activities which deplete public value are curtailed.** We must make it easy to do the right things and increasingly difficult (or expensive) to do the wrong things.

1.6 The leadership we need

We also know that the scale of change required is different. Some of our recommendations are straightforward. These might be called 'no regrets' actions, where any risk or downside is minimal. We've labelled these 'do it'. Some require the widespread adoption of novel and innovative practices, knowing we have the information and a good enough consensus to act. These are labelled 'test it'.

And some of these require fundamental paradigm shifts in how we think and behave. Citizens, businesses and communities will need to reflect on these important questions and deliberate together to answer them. This will inevitably involve complex choices and sustained, multi-stakeholder, skilfully facilitated discussions. There are the 'debate it' recommendations.

For this to happen, we need a system-wide change programme, integrated into governments' and businesses delivery mechanisms, and 'coached' into being through shared and aligned leadership.

The Commission recognises that **a new approach to leadership** is now essential, which:

- Acknowledges with humility that leaders in the past have not had all the answers – or else we would not be facing the challenges we do
- Is genuinely curious, inquiring and open about where possible solutions might come from – not advocating more of the same
- Collaborates with other leaders wherever they are – from the grassroots to established positions, young people and elders
- Appreciates the importance of diversity, inviting people with different perspectives into respectful dialogue, keeping the concerns of the whole system in view
- Focusses squarely on the actions needed, sticking with the challenge of working through real tensions and dilemmas, and
- Learns fast, in cycles of action, reflection, learning and adaption

SYSTEMS THINKING, AND SYSTEMS CHANGE

Peter Senge defines systems thinking as "a context for seeing wholes… a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots." In other words, we inhabit a living and adapting ecosystem and we must understand the way its various elements interact with one another to avoid our efforts to reform one part of the system causing disruption elsewhere.

Too often policy works in siloes, concentrating on one small part of the system at a time and in doing so producing unintended results in other parts of the system. Or else, as with pollution for example, it works on cleaning up the mess made by the system rather than dealing with the problem at root. Systems change, by contrast, focusses on reforming the system as a whole, rather than one particular piece of it.

Our report sets out actions for everyone. In taking this whole systems approach, our responses are both radical and practical, engaging all those who need to act to do so together.

BOX 2: HOW WE HAVE GROUPED OUR RECOMMENDATIONS

DO IT

Do it - The quick wins, where we already have the practices available to us but we need new impetus to use them effectively. For example, a world-leading drive to normalise sustainable and healthy procurement for public value across the public estate.

TEST IT

Test it - Where there is now good enough consensus and where policy enablers need to catch up with public appetite. For example, training farmer mentors and strengthening existing support networks.

DEBATE IT

Debate it - The deeply contested issues, where important choices need to be exposed and which can only be resolved by inclusive and balanced debate and courageous collective leadership. For example, how the public can consider eating less, and better, meat; and how companies can change their businesses for net positive effect.

We all pay the cost for unhealthy food, just not at the till. From the food we grow to where we buy and eat it, we need to make healthy and sustainable food the default option.

There is currently a huge imbalance in the resources we use to promote the right foods to the public. In 2017 the UK government spent

£5m

on its flagship Healthy Eating Campaign.

THE HIDDEN RECEIPT

TYPE 2 DIABETES ANNUAL HEALTH COSTS — £12 BN

UK FOOD INDUSTRY ADVERTISING SPEND ON UNHEALTHY FOODS (2014) — £256 M

MALNUTRITION - ANNUAL COST TO THE HEALTH SERVICE — £19.6 BN

ANNUAL VALUE OF FOOD WASTED (2015) — £13 BN

GLOBAL HEALTH COST - UNDERNUTRITION AND MICRONUTRIENT DEFICIENCIES — £1.7 TN

NOT EVERYTHING IMPORTANT CAN BE COSTED

90% OF CROP VARIETIES HAVE DISAPPEARED FROM FARMERS' FIELDS OVER THE LAST 100 YEARS

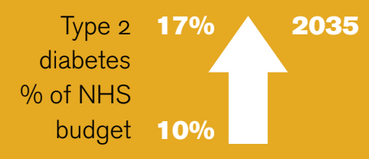
FOOD INSECURITY IN THE UK IS INCREASING

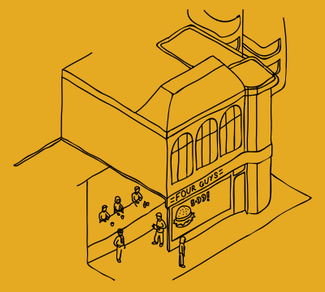
One third of all food produced is wasted.

Food waste is putting a huge strain on our planet's health while more than 815 million people suffer from undernourishment. Agriculture is the major driver of deforestation globally with around 15 billion trees cut down each year.

Our diets play a huge part in determining our health.

If you're obese you are five times more like to develop Type 2 diabetes which currently accounts for around 10% of the NHS's budget. On current trends this figure is expected to rise to 17% by 2035.





One in four people in the UK are obese with rates quadrupling over the last 25 years. The Office of National Statistics counted up all the chippies, kebab vans and greasy spoons in the UK and found that there's 34% more of them than there were in 2010. People who have lots of takeaway shops near them are almost twice as likely to be obese and Public Health England found that deprived areas have five times more fast food outlets than more affluent areas.

The World Health Organisation estimates that more than 2 billion people suffer from micronutrient deficiency. Globally we are producing 22% less of the fruit and vegetables needed to meet nutritional recommendations. Land degradation together with climate breakdown is predicted to reduce crop yields by an average of 10% by 2050 and up to 50% in some regions, increasing levels of malnutrition and starvation and driving increased conflict and displacement.

Micronutrient deficiency affects more than

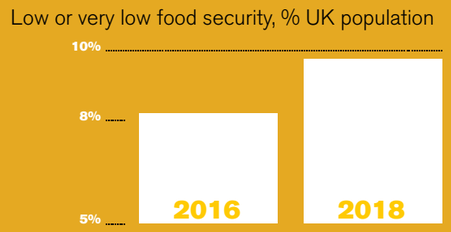
2bn

people worldwide

Despite the number of products on the shelves, globally we are reliant on just 5 breeds of animal and 12 crops for more than 75% of the food we eat.

There are increasingly strong links being made between the importance of diversity in our diets and our health. More than 50% of the worlds plant-based calories come from just three crops – rice, maize and wheat.

Over the last year alone we've seen a 19% percent increase in food bank use, with over 4 million children in the UK living in households that can't afford to meet official nutritional guidelines.



Chapter 2 Healthy food is every body's business

Imagine a future where healthy, nourishing, delicious food is plentiful and affordable for everyone. Where we can choose from more local and UK produce grown sustainably, and where all the food we buy is grown with care for the planet. Where we have reversed the trend on diet-related illnesses. Where eating food together, at home or in our high streets, is convivial and healthy and strengthens our communities. Where all food is valued, and food waste is eliminated.

"I'm a farmer and I can't afford to buy the food I produce. How ridiculous is that?"

James, Peak District sheep farmer

Our food system does so much more than feed us. It is about what we grow, and how we grow it; what we eat and how we eat it.

Healthier and life-enhancing diets mean more and better fresh fruit, vegetables, nuts and wholegrain food, less and better meat and dairy, with livestock products coming from climate and nature-friendly production, and zero food waste. It also means re-establishing food as central to convivial human relationships, in the process rebuilding our connections with food producers, nature and each other.

This will be good for our health and wellbeing, and for climate change and biodiversity. And if policy, business practices and incentives were designed to treat the health and wellbeing of people and planet as the top priority, it will provide greater opportunities and decent livelihoods for the farmers and food producers we depend on.

Yet our current food system is failing on the basics.

Much attention is directed towards the apparent challenge of feeding nine billion people by 2030. But we already produce more than enough for everyone in the world to eat well. Today, it is inefficiently and unsustainably produced, profligately wasted and unfairly distributed. And we make too much of what is not good for us. A WHO report looked at 23,000 of the most popular and widespread food products on the market and found that 68 percent of them were categorically unhealthy.[12]

The food system continues to change rapidly, with little public appreciation or discussion of the impacts on health, wellbeing and society.

The growth of online grocery shopping, new global players entering the market and the rise in home delivery, means the days of the big bricks and mortar superstore may already be numbered.[13] In future, big food retail seems likely to focus on 'making every moment shoppable', harvesting data from online shoppers to optimise the sale of ever more goods, with the risk that there will be fewer opportunities for independent public health agencies to influence healthy and sustainable options.[14] Ideally, data and analytics could be

used to prioritise healthy, climate, nature and farmer-friendly food choices by individuals and institutions, but this will only happen if we choose to direct it in this way.

How we consume food is also changing. In towns and cities, we are eating more food cooked outside the home and delivered via online sites. A third of meals are eaten alone.[15] This atomisation of the social routines and rituals that used to bring people together regularly over food, coincides with the rise in loneliness and mental ill-health.

But the biggest blow is this. In the UK, while decades of policy have been designed to produce ever cheaper food, household food insecurity – where many people have too little money to be able to buy enough healthy food – is rising.[16] It is the poorest and most vulnerable in society who have the worst diet-related health outcomes (Box 3). While food in the supermarkets is generally quite cheap, the true cost is picked up elsewhere in society – with many farmers struggling to make a living, low job security in wages in much of the food sector, a degraded natural environment, vast quantities of food waste, spiralling ill-health and impoverished high streets.

The market will never be perfect. But for it to work well enough, we need regulation, standards and fiscal measures that level the playing field for health, and a concerted effort to reshape supply chains through public procurement and other innovative measures. As Adam Smith concluded, paraphrased by one of our Commissioners, "the bigger the interests, the greater the power needed by government, to protect society against corruption, and capture".[17]

There is both the need and the chance for a historic drive to put health at the heart of our food system. Government holds many of the key levers and must take the initiative yet will rely on businesses and civil society sharing leadership. All effort, policy, legislation, money and resources need to be directed towards implementing and accelerating a transition plan for climate, nature and public health with these recommendations:

Healthy food is every body's business

1. Levelling the playing field for a fair food system – good food must become good business

2. Committing to grow the UK supply of fruit, vegetables, nuts and pulses, and products from UK sustainable agriculture, and to using them more in everyday foods

3. Implementing world-leading public procurement, fully using this powerful tool to transform the market

4. Expanding collaborative community food plans help inform and implement national food strategies and design them to meet the different needs of communities around the UK

5. Reconnecting people with nature to boost health and wellbeing

2.1 Levelling the playing field for a fair food system – good food must become good business

Few of the businesses we met were against regulation. In fact, many responsible and forward-looking businesses are all for it, as it levels the playing field, helps them raise their game and helps with planning.

What is clear, however, is that the playing field is international. It is vital, therefore, that government reflects UK standards in trade deals and champions the multilateral approaches and institutions best placed to achieve a consistent approach worldwide. We argue that it is more secure, and more resilient for UK government to support and invest in environmentally, socially and economically sustainable UK agriculture than seek trade deals to secure imports which do not meet our own standards. In short, this means supporting the production and consumption of healthy food that can be grown in the UK in a sustainable way. This approach is outlined in greater detail in Chapter 3.

The WHO says governments have the "responsibility to ensure their citizens can live a healthy life".[18] Those countries that are investing most to develop sustainable food systems,[19] reverse diet-related ill-health and promote wellbeing are those where government intervention is seen as a positive good – either through their culture of communitarianism (as in the Nordics) or top-down paternalism (for example Japan, France and South Korea).[20] Although citizens in the UK in general say they dislike the idea of government interference, when asked what they think their governments already do on their behalf, their expectations are high.[21]

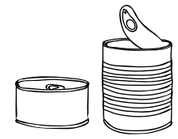
WHO sets out five key instruments[22] available to governments:

- Regulating marketing
- Labelling
- Fiscal policies – tax and regulation
- Public procurement
- Reformulation – particularly limiting foods high in fat, sugar and/or salt

BOX 3: FOOD INSECURITY IN THE UK

According to a report from the House of Commons Environmental Audit Committee in January 2019: "A 2018 report by the Food and Agriculture Organization (FAO), averaging data from 2015 to 2017, estimated that 2.2 million people in the UK were severely food insecure. This is the highest reported level in Europe and means that the UK is responsible for one in five of all severely food insecure people in Europe. In June 2017, UNICEF found that in the UK approximately 19 percent of children under age 15 live with an adult who is moderately or severely food insecure, of whom half are severely food insecure. The Food Foundation suggest that this makes the UK "one of, if not the, worst performing nations in the European Union".[96]

However, this is not an argument for pursuing an ever cheaper food policy, which it is now evident will simply create serious problems elsewhere. Civil society alliances such as End Hunger UK are clear that the priority for people at risk of household food insecurity must be to improve household income and resilience to the crises and income shocks that richer households can more easily weather.[97]



It is essential that government maintains and strengthens current protections and standards. Yet more radical interventions across this spectrum will be required to address the challenges and opportunities we set out in Chapter 1. Alongside encouraging positive developments, we must also ensure that there are proportionate and effective penalties for those who fail to meet their obligations. This requires measures that are novel, substantial and potentially controversial. Through our inquiries and call for ideas, we encountered a range of such proposals that warrant debate, investigation, testing.[23] We summarise some of these in Box 5.

Do it **Test it** **Debate it**

BOX 4: A NET POSITIVE COMPANY STRATEGY

Multinational agri-business Olam has launched a new sustainability strategy which supports a 'net positive' approach to supply chain and landscape management. Their Living Landscapes policy states that land use activities should deliver products while maintaining critical habitats, also regenerating the natural capital of soil, water and natural ecosystems. "Agriculture is at a tipping point," Olam's co-founder and chief executive Sunny Verghese said: "Unless we address the multiple environmental and social issues affecting our supply chains, our future volumes are at risk. We already have many policies and codes in place but we must now go beyond simply doing less harm, and instead aim for a 'net-positive' impact towards the creation and restoration of natural and social capital."[102]

BOX 5: RADICAL INTERVENTIONS FOR INVESTIGATION, TESTING OR DEBATE

Together, the costs to society of diet-related ill-health, obesity and hunger, poverty and social exclusion, plastics, pollutions and waste, climate and ecosystem breakdown add up to a chilling picture of a future where we simply cannot afford to service the costs of the damage we do today. If we wish to protect our children from that inheritance, we need ideas that are truly transformational, bold and disruptive. The challenge is great and the timing urgent.

Carbon pricing

Carbon pricing has the potential to decrease use of nitrate fertilizer and peat, and reward farmers for sequestering carbon, warranting investigation as a priority.[98] It would have knock-on effects on the cost of producing carbon-intensive foods. The impact on UK producers of imports that are not subject to the carbon pricing scheme could be offset with tariffs.

Mineral accounts

Mineral accounts for individual farms would allocate each a 'fair share' of nitrogen, potassium and phosphate in the form of tradeable exchange quotas. Buying inputs containing these minerals would require a valid quota to debit against. Initial quotas would reflect current use, and be tapered in line with science-based targets.

International antitrust regulation

A recent report by the International Panel of Experts on Sustainable Food Systems (IPES) notes that, "the wide-ranging impacts of global mega-mergers often evade the scrutiny of regulators" and proposes "a new anti-trust environment… accompanied by measures to fundamentally realign incentives in food systems and address the root causes of consolidation."[99]

An enhanced supply chain adjudicator

As we go to press, the future of the UK Grocery Code Adjudicator (GCA) is under discussion with proposals that retailers self-regulate up for consideration. A rapid review could identify priorities to ensure the whole supply chain is fair, learning from the GCA's successes, to make what is otherwise a fragmented, part voluntary and part regulatory system more integrated and coherent.[100]

Clear signposts for citizens

Shoppers have to navigate a jungle of labels when they look for sustainable and healthy food. Some countries have taken steps to rationalise standards and regulate claims, making it easier for citizens to take the action that companies and governments say they expect of them and citizens tell us they want to take.

Radical restrictions on marketing high sugar, salt, trans fats and ultra-processed foods

Learning from the successes of curbs to tobacco advertising, advertising ultra-processed foods high in sugar, salt and trans fats could be restricted in all public spaces in the physical and digital world. Such foods could be required to use plain and factual packaging. Advertising should not be directed at children, and it should be subjected to the 9pm watershed, regulated in public spaces and on social media, to ensure that restrictions are not circumvented. The financial disparities between advertising spend on unhealthy foods and public health campaigns for healthy eating is a huge problem. We should apply an advertising levy on unhealthy foods, with proceeds hypothecated to public health campaigns for fruit, veg and healthy foods, to redress this.

Net positive companies

Companies that embed 'net positive' strategies take responsibility for finding ways of designing a circular economy that adds to the planet's capacity to sustain life, not merely reducing how much we extract (Box 4).[101] Shareholders of agri-food businesses should focus on encouraging the adoption of net positive policy.

Citizens assemblies on healthy and sustainable diets

Discussions on what makes a good diet have become confusing for many citizens, and sometimes highly divisive. Citizens assemblies could help navigate difficult issues, such as interventions that improve sustainability but increase food prices, and develop the mandate for policy and public action.

Universal community food bond

A universal bond could drive mass participation and transformative investment in local food systems, develop sustainable short supply chains and contribute to tackling food insecurity and food 'deserts' (Box 6).

Box 6: Worked example of a universal community food bond

A universal community bond proposes a bold approach to tackling the problems we face in the food system, giving everyone a real and practical incentive to participate in and shape a sustainable food system in their communities, and grow sustainable UK agriculture. It is an idea as radical and transformational – and in the same vein – as universal basic income.

The Beetroot Bond

Every person in the UK, adult and child, would receive a Beetroot Bond with a monthly dividend to spend on fresh food. The purpose is to nudge people to buy healthy food and to empower communities to shape and drive their local food systems.

The money would only be available to spend on healthy produce purchased directly from local farmers and traders. It would ultimately be the decision for the local community, through a community food plan within a national framework (Section 2.4), to determine which businesses and initiatives are eligible. They could include, for example, local and seasonal, organic or other high welfare accreditations, plastic-free, fairly traded or affordable.

This would enable everyone to access good food, and recognise that this is fundamental to our personal health and wellbeing as well as that of our communities. The card would be usable at local stores, farm shops, markets and box schemes so providing farmers with better prices for their produce.

A people's food system

The Beetroot Bonds would also be shares in your local food system. Each person would be able to use their Beetroot 'shares' (and the shares of their dependents) to vote on local food policy. Through a digital democracy platform all 'shareholders' would be able to vote on how (within the nationally defined framework) Beetroot Pounds can be spent in their community. They would define what goods and retailers are licenced to accept Beetroot Pounds, so steering the food system to meet the preferences of individual communities.

This would give everyone direct control over their local food system and a real stake in their community that is likely to produce benefits beyond its immediate intentions, such as increased knowledge about food and health, social cohesion and civic pride.

The same process would allow communities to select local projects in line with their community food plan which can be financed through unclaimed, elapsed and donated Beetroot Pounds. The scheme is available to all, so removing any stigma too often associated with means-testing or food benefits. Wealthier households would be encouraged to donate their Beetroot Pounds to the projects pot within their community.

The Beetroot Bond would create a food system driven by local people, to strengthen their communities, support sustainable farming, and promote healthy eating.

A data smart food system

The anonymised shopping data created would be made freely available via a web-based dashboard. This would give farmers, intermediaries and retailers of all sizes equal access to powerful real-time intelligence, to inform business planning, from planting through to marketing.

People would be able to opt in to receive messages which may support them to make healthier choices, and prepare exciting meals. This would give small-scale food and farming businesses affordable access to the high-quality data and targeted communications currently only accessible to supermarket loyalty schemes and large companies.

Value and cost

Pilots in three communities could test the potential of such a bond to deliver public value and gauge the appropriate value of the monthly dividend.

By way of illustration, a bond of £10 a month would cost £8bn per year across the UK. It could deliver public value on multiple fronts including savings in public health and social care, reduced waste and environmental costs, and returns through local economies. Four million children nationally live in households that struggle to afford enough healthy foods to meet the nutrition guidelines. The poorest 10 percent of households need to spend 74 percent of their disposable household income on food to meet the Eatwell Guide.[103] The bond could potentially be funded through taxes on unhealthy food, or on a similar basis to proposals for universal basic income.

In a small city such as Peterborough (population 196,000) a bond of £10 a month would put £25m of spending power into the hands of the local people. They might wish to support the twice monthly farmers market to be open daily and to promote seasonal produce from Cambridgeshire farmers. They might decide to direct their projects pot to build a community kitchen, provide free milk in primary schools from local dairies or set up a supermarket for local producers. It would boost not only the health of the population but also the health of the city and community, and the bonds between the city and countryside.

At first glance this seems like a costly initiative, but it is modest compared to the costs already incurred by the choices we and our predecessors made on food, farming and public health. The only question now is how we would like to pay. Would we rather pay this cost now to lessen the damage and revitalise our food system or pay the much larger costs of climate change damage and a crisis in public health? The big difference is the collateral effect. To do little now and pay later will further erode trust and cohesion in our society, destroy our rural communities, forever blight our beautiful landscape and disproportionally impact the most poor and vulnerable. If we act now we could revitalise our local communities, energise our rural economy, rebuild our high streets, create connections between urban and rural communities and herald in a new era of healthier people, sustainable food systems and a fairer society.

2.2 Committing to grow the UK supply of fruit, vegetables, nuts, whole grains and developing and supporting UK sustainable agriculture

Incentivise the shift towards growing more fruit, vegetables, nuts and pulses, along with other products from UK sustainable agriculture and use them more in everyday foods through:

- A clear ambition shared by government and industry to increase the share of UK-grown fruit, vegetables and nuts and whole grains and sustainable UK livestock
- A conversion grant scheme for horticulture, including growing and support for primary processing and market development such as part funding capital costs
- Horticulture should be eligible for all payments and support like other parts of agriculture
- Extending and upscaling initiatives to promote the availability, affordability, accessibility, quality and appeal of fruit, vegetables, pulses and nuts, such as the Food Foundation's Peas Please project and the VegPower marketing campaign[24]
- Mobilising the power of public procurement in ways we set out in Section 2.3

Eating more fruit, vegetables, nuts, pulses and whole grains has big benefits for public health. Promoting this and growing more in the UK to rebalance our heavy reliance on imports, was the key recommendation from the work we did with farmers and other stakeholders in developing a UK response to the recommendations in the EAT-Lancet Commission.[25]

EAT-Lancet is a three-year, international academic study on the relationship between climate friendly agriculture and healthy diets. With expert contributors from 16 countries, it has focussed debate on what is produced: what mix of cropping and livestock production could fit with feeding everyone healthily, fairly and within the limits of what the planet can sustain. But its calls for a shift to 'plant-based diets' were met with concern by many UK livestock farmers.[26] We brought farmers together with scientists involved to explore those concerns and identify 'no regret' priorities for action.

We invited a group of livestock farmers and others with a stake in the debate, including outspoken critics of the EAT-Lancet study, to set out their vision of a sustainable and healthy food and farming system which would be appropriate to the climate and conditions found throughout the UK. They wanted to make the most of the UK's pasture to produce low-input milk and meat; produce enough fruit, vegetables, nuts and legumes to meet domestic demand; and to rebalance arable land away from crops for animal feeds, towards crops for humans. We asked the scientist behind EAT-Lancet's analysis to model these new scenarios.

This work highlighted that eating more of the good stuff – unprocessed and fresh fruit, vegetables and fibres – and fewer calories overall, had a bigger effect on health than simply eating less meat or dairy. We therefore endorse government's commitment to extend the current EU match funding for producer organisations under the Fruit and Vegetables Aid Scheme.[27]

Although farmers were concerned that the EAT-Lancet study was 'anti-meat',[28] the pasture-based scenario defined by the group we convened had about the same amount of meat in the diet as EAT-Lancet's flexitarian scenario. The big switch was from poultry to beef and lamb. The pasture-based scenario also saw more production and consumption of dairy than EAT-Lancet's recommended approach, resulting in higher GHG emissions in the modelling results.

This adds weight to moves to promote 'less and better' meat and dairy,[29] and EAT-Lancet's overall recommendation for flexitarian diets. While farming and environmental groups sometimes clash over this issue, our findings suggest that their priorities could converge. However, they also call into question suggestions from the EAT-Lancet Commission and the UK Committee on Climate Change that poultry is the 'better' – most sustainable – meat.[30]

Our process brought in wider factors than the climate impacts, including antibiotic use and animal welfare considerations, and the impacts of imported feedstuffs on which grain-fed animals like pigs and chickens depend. Animal welfare must be included in a definition of sustainable agriculture consistent with agriculture's social licence to operate. As the Farm Animal Welfare Committee (FAWC) sets out, this includes ensuring animals' needs are met and as well as being free from pain and discomfort, they are free to express their natural behaviours and live a 'good life'.[31] While livestock systems in the UK would normally meet FAWC's criteria for a 'life worth living', a significant proportion of poultry production systems, such as laying hen cages, are incapable of delivering the behavioural opportunities associated with a 'good life'.[32] Extensive and pasture-based livestock systems can meet animals' needs more sympathetically, while also offering the potential for well-managed pasture to sequester carbon and benefit wildlife. While the pasture-based scenario had higher GHG emissions in EAT-Lancet's model, newer and more accurate ways of accounting for the warming effect of methane emissions, and promising research to reduce emissions, could close that gap.[33]

Rather than promoting intensive poultry, we recommend that government and the farming industry focus their efforts to tackle GHG emissions in agriculture on reducing fossil fuel use and grain feeding of livestock, and by increasing carbon sequestration in soils and above ground vegetation. Low-input pasture and mixed rotations can play a part in this.

TEST IT

2.3 Implementing world-leading public procurement, fully using this powerful tool to transform the market

Use the buying power of public procurement across the whole public estate to provide the impetus needed to shift the whole food system, through buying UK produce with progressively higher standards, to support the transition that farming needs to make with secure and stable contracts. Public bodies should source 40 percent of their food from their local sources by 2021 and escalate the target to 80 percent local and sustainable sources in seven years.

Unleashing the transformative power of public procurement depends on a change in culture. This starts from the top, making it a national strategic priority. The Food Strategy is an opportunity to achieve this in England.[34] It should set an expectation for all schools and hospitals to meet at least the Bronze 'Food for Life Served Here' standard run by the Soil Association, and to work progressively towards Silver and Gold.[35] Lessons learned from these initiatives tell us that this works best with investment to develop public entrepreneurs in local institutions. Government should add a Public Value Test to the Social Value Act.[36] The public sector already spends £2.4bn a

year on catering.[37] While a small share of the total market, this is the most direct way government can drive demand and reshape supply chains in the public interest.

This is a practical proposal with radical potential. Over more than 20 years, successive UK reports and initiatives have made the case for better public procurement. There has been progress, including in setting enabling legislation. Across England and Wales, the Public Services (Social Value) Act 2012 states that "all public bodies in England and Wales are required to consider how the services they commission and procure might improve the economic, social and environmental well-being of the area".[38] Government Buying Standards for Food and Catering (GBSF) provide further guidelines, principally focussed on healthier foods, but including requirements on equality and diversity, animal welfare, fish sustainability and the environment, and ambitions for organic and higher welfare food.[39]

Yet the impact so far has been limited. One study showed that 43 percent of Clinical Commissioning Groups had incomplete policies on the Social Value Act or none at all.[40] GBSF are only mandatory for central government (Whitehall, HMP and some parts of the armed forces) and set as a minimum expectation in NHS Standard Contracts for NHS hospitals, but poorly monitored and enforced. Separate standards apply to state-maintained schools and newer academy schools, but require action only on healthy eating, not explicitly sustainability, climate or food provenance; GBSF are only 'encouraged'.

Experience from other countries shows the power of a committed strategy for healthy and sustainable procurement. Copenhagen has transformed its public procurement and its local supply chains by setting targets for organic purchasing and now 72 percent of all food on Copenhagen's public plates comes from organic producers.[41]

Promising progress in the UK has been achieved with the Food for Life Served Here scheme improving two million meals in thousands of schools and hospitals across the UK. In Scotland, 75 percent of local authorities are engaged, with research showing that every £1 invested by local authorities in Food for Life brings a social return on investment of £4.41.[42]

Local success stories in Nottingham, Preston, East Ayrshire and elsewhere show how entrepreneurial individuals and local political leadership can deliver great public value, through better food quality and health, revitalising a community's economy, improving sustainability and saving costs. Local innovation has also chipped away at the barriers, particularly to sourcing from SMEs and aggregating buying power. Bath and North East Somerset local council has applied an innovative Dynamic Food Procurement system, working with Fresh range, which brokers the relationship between smaller scale and sustainable food producers that are sometimes deemed impractical or costly by other public sector institutions.[43] Procurement Across London (PAL) combines the buying power of several boroughs to achieve high food standards cost-effectively, saving 10-20 percent against competitors and meeting at least Bronze standards for Food for Life Served Here.[44]

Despite the success of these initiatives they are still not the norm. In Wales, our inquiry explored why, in spite of having the enabling legislation in place, existing tools are underused. It was led by Professor Jane Davidson, who was a Welsh Government Assembly Member for over a decade and helped introduce the legislation. The account of this journey is in our accompanying field guide, and as well as practical guidance it also talks about persistent and collective leadership between public institutions and farmers and producer groups. The Welsh group worked with the leaders of the 'anchor' institutions in South West Wales – health, local government, universities and police – and with groups of Welsh farmers from different sectors to think systematically about the changes needed, especially since Brexit is likely to have damaging impacts on traditional Welsh farming.

DO IT

2.4 Establishing collaborative community food plans to help implement national food strategies

Require co-created community food plans to help implement and inform national strategies, rolling out existing exemplary practice across the countries, and design them to meet the different needs of communities around the UK.

We welcome government's proposal to develop a Food Strategy for England, with a broad and system-wide remit, led by Defra non-executive director Henry Dimbleby.[45] Northern Ireland also does not yet have a food strategy, whereas Scotland has led the way in developing its Good Food Nation Bill, and Wales is developing its Food Manifesto.[46] But all around the UK, we heard from people in communities that top down approaches will not be enough to support and sustain vibrant and nourishing regional food economies. From the Highlands in Scotland to the gardens of Kent, people talked about the critical importance of both setting high national standards and working with local food systems sensitive to their particular ecological and social strengths and needs.

Any national strategy is only as good as the capacity for delivery. For many aspects of that delivery, the important actors are in communities and in local food systems. In Chapter 4 we recommend measures to revitalise rural democracy. As we have already rehearsed, food is affected by cross-cutting policies at local and national levels. Even where cross-cutting local arrangements exist, there is no guarantee that food is considered 'as a system'.

In Wales in 2018, in the landmark moment of the publication of 19 Public Service Board Wellbeing plans, not one of them had a food plan.[47] In contrast, in 2015 Scotland required every local authority to produce a Local Food Growing Strategy. Brighton and Hove pioneered this approach back in 2006, and is still going strong;[48] Leicester City published its food plan in 2014;[49] Bristol's Food Policy Council's imaginative and far-reaching Good Food Plan sets out ambitious targets for the city's institutions.[50] The Sustainable Food Cities network, funded by the Esmée Fairbairn Foundation, has played an important role in enabling other cities and districts around the UK to adopt similar approaches.[51] Such an approach could be extended, and further engage rural communities.

In Section 2.3, we talked about place-based exemplary public procurement in the UK and internationally. Community Food Plans would also be able to shape and influence the whole food environment, considering issues such as: the range and type of food outlets in a high street; what and where advertising and marketing is located; beneficial rates schemes for local food businesses; and community growing and eating spaces. All of these are actions known to improve health and wellbeing. Creating a community food plan and applying the Public Value Framework for more connected

and transparent decision-making would enable local communities to take more proactive and democratic control over their local food system and design it to meet their needs.

TEST IT

2.5 Reconnecting people with nature to boost health and wellbeing

We recommend systematically designing for and incorporating opportunities to reconnect people and nature across the built environment, education, health and social care, such as:

- Bringing or reinstating nature tables, walks and outside play into the school curriculum, especially for primary schools
- Incorporating green spaces, play space and nature into all housing developments (also see also Section 4.4)
- Green prescribing (walks, contact with nature, skills and group activities) becoming the norm for GPs
- In towns and cities, allocating growing spaces for community gardens, to produce food and beautiful places
- Developing 'habitat corridors for humans' across cities, and out of cities into the countryside, ensuring that people can get to the countryside with public transport

Crucially, we recommend that farmers and land managers are actively engaged in such initiatives, and access to nature becomes integral to diversified and productive rural businesses, rather than becoming a separate specialist activity.

In our research on farming, food and health, we found farmers around the country were motivated by health but struggled to make it a priority in the face of competing pressures.

Curious to understand more, our partners at the City University Centre for Food Policy interviewed 20 farmers who had nonetheless incorporated health within their business. You can read some of their stories in the accompanying *Field Guide for the Future*.

For them, health is about much more than growing and selling the right mix of crops and livestock. They described connections between animal health and welfare, tackling the overuse of antibiotics and other inputs, social care, countryside access, farmers' own mental health, and the health of soils and wildlife.

The evidence for the physiological, psychological, emotional and spiritual benefits of being in nature, particularly for children, is now extensive.[52] Momentum is building behind social prescribing, which recognises the healing benefits of community activities.[53] Currently, farmers are small players in this growing area of health provision, as 'green care' and access to nature are just one aspect of social prescribing, and conservation bodies have led the way in meeting this demand.[54] Yet initiatives such as Let Nature Feed Your Senses, care farming and LEAF's Open Farm Sunday show the potential for farmers to play a much greater role.[55]

As well as providing wider public benefits, this would also benefit farmers' health and wellbeing. Our locally-led inquiry in Devon and research by the University of Exeter highlights the mental health needs of farmers and others living in the countryside, often in relative isolation. This is an issue we return to in Section 3.3.

DO IT

In 2015, the UK committed to meeting the 17 Sustainable Development Goals by 2030. To reach them, fundamental change across the whole food and farming system is necessary. The UK has made progress on some of the goals, but on other ecological and health indicators connected to food and farming, progress is too slow, weakening the social, economic and environmental foundations of life.

Major challenges ■ Significant challenges ■ Challenges remain ■

Partnership for the Goals

France currently tops The Economist Intelligence Unit's Food Sustainability Index which accounts for sustainable agriculture, nutrition and food waste. In 2014 France put the transition to agroecology at the heart of its agricultural policy. The French agricultural system trains over 450,000 people, it now promotes crop diversity, biodiversity, ecological pest management and integrated mixed farming as the basis of successful food production.

Responsible production and consumption

Denmark has pushed up the quality of its food system by setting ambitious targets for organic produce. It set and has now surpassed its 90% public procurement target for organics at no extra cost. This drive led by public institutions created new reliable markets for agroecological farming.

Proportion of land used for organic agriculture

Less than **3%** (UK)

More than **57%** (Denmark)

Climate Action

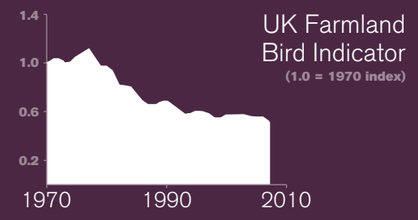
Last year the UN's Intergovernmental Panel on Climate Change report stated we only have 12 years to avoid the worst consequences of climate change. Despite progress in some areas, agricultural emissions are currently projected to continue rising beyond 2030.

Life below water

What we do on the land often ends up in the sea. Farming is estimated to account for 50-60% of nitrate pollution impacting groundwater sources, which supply a third of the UK's drinking water. It may take over 60 years for historical applications of artificial fertilisers to peak causing what many people are calling a 'Nitrogen timebomb'.

Life on land

The main use of UK land is for farming, with around 72% of it dedicated to agriculture. Current health indicators for our countryside are alarming. In the UK we have 44 million farmland birds than in 1970. The UK has lost 84% of its fertile topsoil since 1850, with the erosion continuing at a rate of 1cm to 3cm a year. The State of Nature report stated that intensive agriculture was the biggest driver of the great loss of wildlife, with over 13% of UK wildlife now at risk of extinction.



Chapter 3 Farming is a force for change

Imagine a landscape where farming is working in harmony with its physical and social geography. Soils, trees and grasslands soak up carbon, and provide the habitats for wildlife. Grazing livestock recycle nutrients and maintain biodiverse pastures, while pigs and poultry live mostly on waste streams, competing less with humans for food. A far greater range of crops are grown and eaten, and we produce the fruits, nuts, timber, pulses and vegetables in which we need and are suited to our climate. Pesticide, herbicide, antibiotic and soluble fertiliser use is minimised, with new knowledge flowing rapidly between farmers on how to utilise natural processes to generate fertility and manage weeds, pests and diseases. Regional processing, marketing and distribution infrastructure allows sufficient fresh, delicious, wholesome food to be delivered efficiently to customers, at prices that are fair to them and to producers. Farmers benefit from the technologies, and the investments, to make the successful transition to an agroecological system which feeds society well, without offshoring our responsibilities or undermining the opportunities for future generations.

"Tell you what lads, you'd want a thick skin to be a farmer right now. Only a matter of time until someone blames us for the disappearance of Shergar & Jimmy Hoffa..."

@willpenrievans

Farming is braced for change, facing a new trading environment and the impending transition away from Common Agricultural Policy rules and farm payments. But there is an even more significant transition coming, which is the change needed to mitigate and adapt to climate change, and to restore biodiversity and natural resources.

The growing demand to eat healthily and sustainably is already being felt in farming, as we discussed in Chapter 2. This will grow. Meanwhile, the combination of rising costs, public concern and evolving science is expected to restrict access to inputs many farmers rely on, including fertilisers, pesticides, antibiotics and animal feed from recently deforested land.

We know from travelling the country that some farmers are at the forefront of this transition. From Cambridge to Cumbria and from Armagh to Aberdeen, we met farmers adapting their businesses to face this future with confidence. We described in Chapter 2 how some farmers are making health a priority; so too for wider issues of sustainability and resilience. These farmers show us a possible future. It is a future where farmers produce high-quality food sustainably, sequester carbon, enhance the environment and their communities, and play a part in meeting the global Sustainable Development Goals, and where they are rewarded enough to live well and reinvest. The **fourth agricultural revolution** plays its part in shaping a society that goes beyond 20th century definitions of productivity and efficiency, to help meet broader social, environmental and economic goals. In the last 70 years, agriculture has been about increasing specialisation, chemistry, consolidation and control over

nature, with many farmers simply raw material suppliers to a processing industry. We imagine instead a future which is about valuing diversity, working with nature, with farmers able to secure their own prosperity and that of future generations.

But such a positive future is far from guaranteed. We met many who were concerned that farmers will struggle through a time of turbulence which will hasten insolvencies and land abandonment, leading to the UK importing more food and offshoring the environmental costs of our food production to other countries.

What would it take to help more farmers, and the industry as a whole, transition sustainably? We asked farmers around the country to tell us how they are planning for the future – where they felt locked in to the current system, where they have flexibility, and what practical support they felt they needed. The priorities that came through from our research and conversations were:

- A predictable policy environment – a clear and reliable framework to unlock investment and allow strategic planning
- Relevant innovation – public research investment that better matches what farmers will need
- Peer-to-peer support – technical, business and social support go hand in hand in a sector under pressure
- Fair prices and stable markets – a decent income from their produce so farmers can save, plan and reinvest
- Access to innovative finance – farmers are being asked to adapt to an uncertain future, and need investors and lenders ready to share the risk

Our recommendations in this chapter respond to these priorities:

WHAT IS THE FOURTH AGRICULTURAL REVOLUTION?

The first agricultural revolution transformed hunter gatherer societies to farming societies. The second, between the 17th and 19th centuries, radically increased levels of productivity to supply a growing population and improve global competitiveness. The third used modern technologies to increase outputs and productivity and combat global hunger. The other effects of this third revolution are now seen in soil erosion, loss of wildlife and genetic diversity.

When we talk of a fourth agricultural revolution we mean transforming farming again, so that it goes with the grain of the land, producing food without depleting the finite natural resources that productive farming depends upon. In short, the fourth agricultural revolution will be based on agroecological principles, regenerating natural resources and sustaining the communities which depend on agriculture.

Farming is a force for change, unleashing a fourth agricultural revolution driven by public values

1. Designing a ten-year transition plan for sustainable, agroecological farming by 2030

2. Backing innovation by farmers to unleash a fourth agricultural revolution

3. Making sure every farmer can get trusted advice by training an army of peer mentors and farmer support networks

4. Boosting cooperation by extending support for Producer Organisations to all sectors

5. Establishing a National Agroecology Development Bank to accelerate a fair and sustainable transition

3.1 Designing a ten-year transition plan for sustainable, agroecological farming by 2030

Government should urgently set an economic and regulatory framework that allows farmers to plan confidently for a sustainable future. It should focus on a bold and honest ambition, recognising that farmers would rather plan for change than react to a moving target.

We are persuaded that the principles of **agroecology** best sum up how farming will need to change globally to address the challenges and opportunities described in Chapter 1. **Agroecology** means farming in ways that learn from, work with and enhance natural systems.

Integrated pest management, organic farming, conservation and regenerative agriculture, and agroforestry are all examples. Among their many shared features, these movements each recognise that technical changes and cultural change go hand in hand. This is one of the 10 elements of agroecology set out by UN Food and Agriculture Organisation (FAO) (see Box 8). These principles steer a path to sustainable farming that priorities systems solutions over incremental increases in resource efficiency, aims to build resilience, and respects values such as animal welfare. The Economist Intelligence Unit Food Sustainability Index 2019 suggests that those countries prioritising agroecological and sustainable farming systems are performing well against their indicators; France is number one, the Nordics in the top 10 with the UK at number 24.[56]

WHAT IS AGROECOLOGY?

We have followed the Food and Agricultural Organisation of the UN's definition of agroecology as "an integrated approach that applies ecological and social principles to the design and management of food and agricultural systems. It seeks to optimise the interactions between plants, animals, humans and the environment and the social aspects that need to be addressed for a sustainable and fair food system." It applies the principles of the regenerative economy to agriculture.

As well as being clear about the features of farming systems best equipped to square the social, economic, health, animal welfare and environmental demands on agriculture, government should also be clear about how much food we aim to produce in the UK and how this can be achieved following agroecological principles.[57] We propose that the aim should be to improve our balance of trade across all commodity types, and to set stretching targets to increase the share of UK-grown fruit, vegetable and nuts (Section 2.2). This reduces the risk that we offshore our environmental footprint and gives farmers confidence to invest in producing to the high standards that UK consumers and our trading partners expect.

To support this ambition, the plan should set out the essentials that farmers need to make strategic decisions. These should include:

- Universally accessible baseline payments that engage the whole sector in gathering data, building skills and strengthening assurance
- Clear priorities for public investment and future payments, which incentivise farmers to follow agroecological principles while accepting that payment and investment schemes will evolve
- Realigning fiscal incentives to help deliver net zero carbon emissions from agriculture
- A timetable for more stringent controls on the use of pesticides and antibiotics, anticipating that the scientific case for this will continue to grow

We outline the proposed elements of this ten-year plan in Box 7.

Why ten years? Our research found farmers typically planning their business over one to five years, with most able to make big changes on a five to ten-year timescale. 2030 is also the target for the UN SDGs.

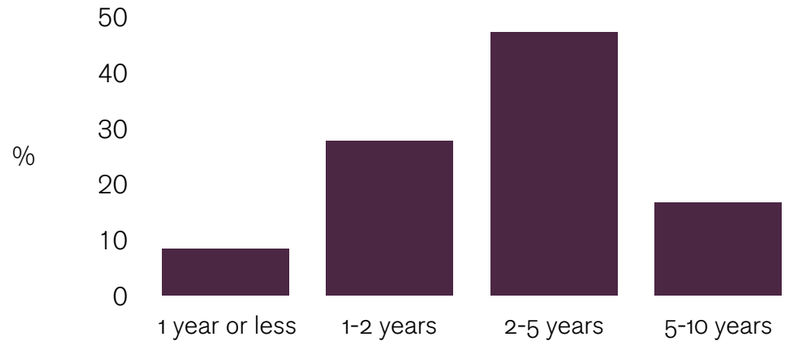
Farmers we met are struggling with the current uncertainty around farming and there is considerable anxiety about the numbers of farmers that may simply exit. They want enough clarity about the future to plan their business. Many want to farm more sustainably, as long as they can afford to do so.[58] When we asked a panel of farmers about the most important factors in developing their business plans, they listed economic viability and soil health top.

A number of solutions are already being tested in the current Environmental Land Management Scheme (ELMS) trials. But progress is slowing, there is no money available to support the research and proposals so far seem fragmented. The NAO found that Defra "has not provided the necessary guidance to enable farmers to plan how to adapt their businesses or how to work collaboratively with other farmers".[59]

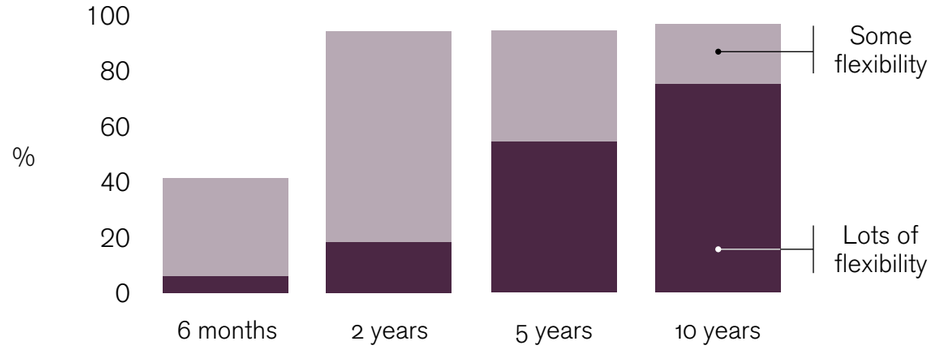
While global markets, climate and other factors all play a part in the uncertainty farmers face, government holds some of the cards. Politicians face a dilemma. The longer they delay in the hope of making better decisions, for example with greater clarity on future international trade, more research or evidence from policy pilot projects, the more it saps farmers' capacity to adapt. That is why we urge government to commit to a future-proof ambition and the essential elements of a transition plan by January 2020.

DO IT

The majority of farmers surveyed (83%) plan between 1-5 years ahead

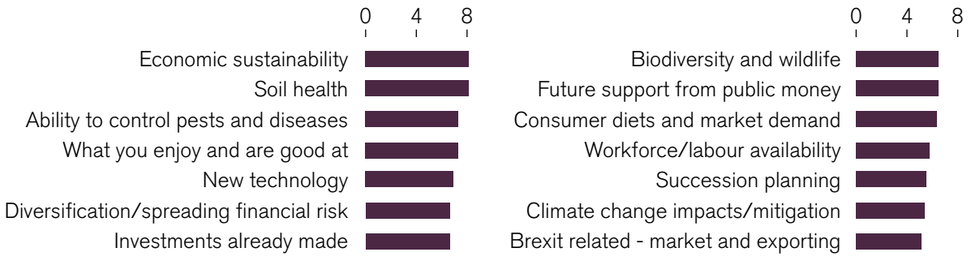


How much flexibility do farmers have to make changes to their business plan?



What factors rank highest in surveyed farmers' business planning?

Respondents' mean score out of 10



Proagrica/Farmers Weekly Farmers Research Panel, April 2019, n=36

Box 7: components of a ten-year transition plan for farming

1. Universal baseline payments involve everyone in gathering data, building skills and strengthening assurance

- Farmers receive a baseline payment that covers the cost of gathering and submitting data, incentivises their participation in continuous professional development and assurance schemes, to improve standards and competence across the sector.
- Priorities for data collection include soil health, wildlife, landscape features, emissions, carbon sequestration and community engagement. In time, the data submitted could be converted to provide farms with basic natural and social capital accounting balance sheets. We commissioned eftec (an environmental economics consultancy), to set out how farm data can be used to create such balance sheets.[104]
- If all farmers received £500 per hectare for their first five hectares, and £20 per hectare thereafter, the estimated cost across the UK would be £840m per year, about a third of the current CAP budget.

2. Targeted payments align public and private investment for public value

- The plan should be clear about the scale of ambition and the minimum public investment that will be needed and available to meet that ambition. While accepting that payment and investment schemes will evolve, the aim should be to incentivise early action and strategic planning by farmers and other land managers in line with agroecological principles. Priorities include:

1. Planting trees, including woodland creation and agroforestry
2. Carbon sequestration in peat and other soils
3. Creating and managing wetlands and waterways
4. Natural grassland restoration
5. Hedges and traditional boundary features
6. Nature improvement at scale, prioritising schemes that integrate agriculture (eg. conservation grazing)
7. Creating and restoring habitat corridors
8. Creating and managing public access
9. High animal welfare systems that also build natural resilience to disease and minimise use of farm antibiotics
10. Developing horticultural production and supply chains (see Section 2.2)

- Targeted incentives should also support farmers to change to agroecological systems that the evidence shows deliver multiple outcomes – thus giving enhanced value – yet face significant cash flow or other transitional barriers. These should extend the current approach to organic conversion and maintenance payments. As the most clearly defined, regulated agroecological system, with a strong market demand, the UK should aim to increase both supply and demand of organic produce to match our far more ambitious European neighbours, and to reduce imports, especially of grains and protein. Other systems that can demonstrate comparable evidence for delivering public value should also be incentivised.
- Where logic dictates, payments and investment should be available to non-farming land managers. For example, creating habitat corridors and managing known risks to biodiversity such as overgrazing and spraying can be as important on golf courses and pony paddocks as on agricultural land in some parts of the country.

3. Fiscal incentives align to help deliver net zero carbon emissions from agriculture

- This should phase out subsidy on red diesel which currently costs the treasury £940m,[105] and redirect incentives on the same scale towards renewable energy generation and nature-based carbon sequestration, including woodland creation and agroforestry.

4. A timetable for more stringent controls on the use of pesticides and antibiotics, anticipating that the scientific case for this will continue to grow

- The pesticide registration process needs re-evaluation, as too many are approved which, years later, are shown to be harmful. This should include the 'chemical cocktail' effect.[106] Much more stringent regulation is needed of spraying near water courses and residential areas, and prophylactic use of antibiotics. Set a trajectory towards farming with minimal use of potentially harmful chemicals by 2030. Finally, government should commit to ensuring that UK producers will not be undercut by trade deals with countries operating to lower standards.

BOX 8: FAO'S TEN ELEMENTS OF AGROECOLOGY[107]

Diversity
including economic, social, genetic (crop varieties and breeds) and environmental

Co-creation and sharing of knowledge
using participatory approaches to tailor solutions to local needs

Synergies
for example between crops, trees and livestock

Efficiency
making better use of resources to produce more with less input from off the farm

Recycling
reducing waste and minimising dependence on outside resources

Resilience
capacity to recover from environmental, economic or other shocks

Human and social values
protecting and improving rural livelihoods, equity and wellbeing

Culture and food traditions
learning from traditional knowledge and recognising that culturally appropriate diets matter to food security

Responsible governance
transparent and inclusive, locally, nationally and globally

Circular, solidarity economy
reconnects producers and consumers and provides innovative solutions for living within our planetary boundaries while ensuring the social foundation for inclusive and sustainable development

3.2 Backing innovation by farmers to unleash a fourth agricultural revolution

While research and experience show that practical innovation by farmers has driven many of the biggest technical changes that have shaped the industry, most formal support and funding for agricultural innovation is directed upstream, to agri-tech businesses or research institutes. We recommend a concerted drive to recognise and reward innovation by farmers, expanding farmers' access to innovation support. Alongside this, stronger farmer and stakeholder engagement in setting priorities and reviewing funding proposals for research intended to enhance agricultural performance would help to ensure it is relevant and future-proof.

Billions of pounds invested in agricultural research over recent decades has failed to transform the profitability, productivity or environmental impact of farming in the UK.[60] Farmers say they have little influence in the research funded in their name, and that the results are often too general or too late. Current funding for agricultural innovation prioritises commercial returns over public value, so favours technology with export potential; current Defra funding focusses on projects that inform policy, particularly with respect to animal health and environmental management; and little current Research Council funding is near enough to the market to feel relevant to many farmers. Public and private investment in practical innovation, research and development in farming practices and systems is in short supply.

To transform the productivity, profitability and sustainability of farming and food production we need to shift the focus of investment. Transformative change relies on changing farming systems, not just on using inputs more efficiently or substituting one for another.[61]

Big, centralised research projects struggle to support innovation in farming systems, because environmental and market conditions are highly diverse.[62] Supporting research and innovation in farming systems requires a different approach, working on real farms, understanding how they vary, and recognising and supporting innovation by farmers in partnership with scientists and other stakeholders such as environmental groups, animal welfare campaigners, processors and retailers.

Among industrial nations, the UK has led a new wave of farmer-led research and innovation. Pioneering initiatives include Innovative Farmers (part of the Duchy Future Farming Programme), ADAS' Yield Enhancement Network, Rothamsted's FarmInn programme and Scotland's Rural Innovation Support Service. Pilot funding from charitable foundations, UK Research and Innovation (UKRI), the levy boards and government has helped to make these possible.

To date these have been small and supported in spite of government funding priorities not because of them. Crucial opportunities to turn this around include Defra's planned 'innovation accelerator' fund, UKRI's Transforming Food Production programme, and the Research Council's facilities to fund Network+ and Longer and Larger (LoLa) grants.

Dedicated national and local funding streams should target grants at research and innovation projects that are collaborative, pre-competitive and led by farmers, foresters or other land-based businesses. Projects should aim to deliver both commercial and public value. They should include innovative investment to develop processing, distribution and marketing

infrastructure, particularly to increase the efficiency and viability of short supply chains. Funding proposals should be reviewed by farmers and lay people as well as scientists.

Funders should build the research and support capacity that these projects need to thrive, including: training for researchers to work effectively with farmers; larger scale investment in innovative data collection and analytics to support farmer-led projects and farmer and advisor facilitation skills and project development support. Project findings should be disseminated through a well-curated knowledge base (Section 3.3).

These are building blocks for a fourth agricultural revolution. We are not the first to suggest another agricultural revolution is needed, but we mean it differently. Usually people mean that better data analysis, robotics and other technology will boost the productivity and sustainability of farming. Examples include using smaller machines to reduce soil compaction, applying chemicals more precisely, and using sensors to detect animal health problems early and nip them in the bud.[63]

We agree such technologies have exciting potential. Yet the revolution needs to be social and economic as well as technical. Giving farmers and other citizens a greater say in the development and use of technology recognises that there are ethical and social considerations, as well as a technical and professional matters.[64] This would help to turn around the long-term trend, in which previous technologies have played a part, for farming to become ever more marginal and more isolated. The fourth agricultural revolution we need would revitalise farming livelihoods, build a sustainable and resilient food supply, and deliver greater public value.

DO IT

3.3 Making sure every farmer can get trusted advice by training a cadre of peer mentors and farmer support networks

Governments should work with farmer networks to boost the availability and uptake of peer-to-peer support, including by training and supporting farmer mentors. This promises a trusted and cost-effective way to meet farmers' linked needs for technical, business and social support. It also presents a development and diversification opportunity for farmers who become involved in delivering this support.

Farmers need trusted, practical advice to adapt their systems and business models to the changing economic, policy and physical environment that lies ahead. Key advice and professional development needs to include: technical best practice and performance benchmarking; diversification and farm planning; IT, farm accounts and business planning; learning about the environment and engaging with new environmental schemes; new entrants and succession planning; health and safety, sales and marketing, and relationship management with tourists, landlords, environmental organisations and others.

That farmers were undersupplied with such advice, particularly with the independent and credible knowledge to make substantial changes to their systems or business models, was a recurring theme across our inquiries.

Peer-to-peer knowledge sharing is increasingly recognised, in the UK and internationally, as an effective way to support learning by farmers.[65] Our locally-led inquiry in Lincolnshire found peer-to-peer learning the most effective for both advice on sustainable transition and for farmers' wellbeing. Bringing farmers together over a hot lunch to discuss and reinforce each other's work on soil health, for example, provided a convivial environment which built trust and relationships.

A second recurring theme was that many farmers need social support, or to build social capital, as a foundation for technical or business changes. Farming is often isolated, with business decisions interwoven with other aspects of family or community life. This places severe pressures on farmers' mental health.[66] Rates of suicide in farming are consistently among the highest of any sector and farm support organisations such as the Royal Agricultural Benevolent Institution (RABI) express concern that current uncertainties risk exacerbating this (Section 2.5).

Our inquiry in Devon, led by local clinicians and farmers, identified that farmers are most at risk when they become isolated. Support is available, sometimes through bodies like The Farming Community Network and the Rural Chaplaincy, but this is often patchy and poorly distributed. Social prescribing is a valued tool in the clinical kit bag, but it has tended to provide green schemes for urban clients. Rural communities need social prescriptions to suit rural needs and circumstances.

Among the existing advice provided by UK governments or levy bodies, the Farming Connect service in Wales has gone furthest in addressing this social dimension, with the Farm Advisory Service in Scotland sharing some features. Farming Connect provides a suite of support and advisory options to suit different needs, including mentoring by farmers who have received appropriate training. It is an approach built on an understanding that for many farmers what they do, who they are and their place in their community are all inextricably interlinked. The approach works. Their evaluation has found that their Agrisgop 'action learning' programme adds on average £424 at farm level for every interaction with Farming Connect.[67]

There are significant opportunities to support existing local initiatives to extend peer-to-peer support. For our locally-led inquiry, the University of Cumbria reviewed 33 independent initiatives providing support to upland farmers and did a gap analysis. Advice was heavily weighted towards government-funded priorities on environmental management and productivity, with provision magnitudes lower for human, social and cultural capital, including training.

We recommend piloting a 'train the trainer' scheme that allows national and regional farmer support initiatives to deliver low-cost, practical one-to-one advice, mentoring and support to a consistent and credible standard, particularly to farmers who currently make limited use of advisors such vets and agronomists. Universities can help to deliver and potentially accredit this training, helping to bridge research with farming practice and ensure farmers are a conduit for academic excellence as well as trusted peer advice. The farmers involved in providing advice and support would need access to simple and reliable resources, including a well-curated knowledge base of best practice advice, and range of benchmarking tools and schemes to suit different farmers' needs. Alongside the potential to link initial free access to support for 'hard to reach' farmers to the baseline scheme, provision could also be funded through social prescribing. This recommendation is primarily to Defra, as current provision is especially limited in England.

TEST IT

3.4 Boosting cooperation by extending support for Producer Organisations to all sectors

In Section 2.2 we welcomed Defra's commitment to extend the EU Fruit and Vegetables Aid Scheme, which has incentivised British growers to form collaborative Producer Organisations (POs) which have been vital to their productivity, profitability, sustainability and resilience.[68] We propose that a version of this scheme – crucially with match-funding, unlike the extensions through other sectors that have been tried to date – should be extended to all farming sectors.

Collaborating in POs helps farmers share cost and risk, develop new facilities and routes to market, and strengthens their bargaining power. The benefits of cooperation exist independently of public support, and the case for encouraging greater cooperation has been made many times. However, British farmers have proved less inclined to do business through cooperatives than their European neighbours,[69] with engagement especially low in England. This is despite dedicated initiatives to develop cooperatives, notably following the Curry Commission report in 2002. The experience from horticulture – where POs are the exception to this rule – shows how making match funding available through formal cooperatives can kick-start collaboration and transform the sector.

The current fruit and vegetable scheme is UK-wide, and the devolved governments may wish to consider an aligned approach to this issue, to encourage collaboration among producers across the four nations.

While Defra has already mooted a £10m collaboration fund, the experience from horticulture, where government match-funds £35m of PO investment in a sector accounting for around one tenth of agriculture output, suggests that an industry-wide scheme could grow to co-invest nearer £350m per year.

Initially, we recommend a short project to develop and test the approach, gauge potential uptake, and assess how far match-funding for POs could deliver against the wider outcomes set out in Box 7, and Local Industrial Strategies (see Section 4.2), in addition to delivering value for producers and consumers. This approach would complement moves to encourage farmers and land managers to collaborate to provide ecosystem services and develop natural capital at a landscape scale, while recognising that formally constituted POs present specific opportunities and can deliver significant public value through dedicated match-funding.

Government should ensure that groups of farmers are able to rely on the market credentials they invest to develop. Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) schemes are crucial to this, and currently promote around £1bn of UK regional, artisan and speciality foods. In Cumbria, for example, upland farmers came together to create a unique brand for their produce under the Lakeland Herdwick meat brand, gaining PDO status and raising the returns they can get for their produce.[70] The PDO and PGI schemes need to be robustly maintained after Brexit, and defended in future international trade negotiations.

TEST IT

3.5 Establishing a National Agroecology Development Bank (NADB) to accelerate a fair and sustainable transition

The UK should establish a National Agroecology Development Bank. The bank would finance land use and food production projects that benefit ecology, health and communities.

The NADB would be a publicly owned bank, with government providing the initial capital and operating as a not-for-profit business. It would need a diverse mix of local banking partners with a close connection and knowledge of local markets and conditions.

The NADB must have the full powers of a bank: it would require a full license so that it could create new money in the form of loans, in the normal way that banks are legally empowered to do, as well as borrow and leverage capital. The NADB could raise money from long-term investors and, potentially, through the Bank of England Quantitative Easing (QE) programme. Though no new QE is taking place, the programme could include such investments, for example as current assets mature and their value is reinvested.[71]

While banks say finance is available and lend so farms can buy new machinery or housing, farmers told us they struggle to finance changes to their systems or business models.

Financing a transition in food and farming businesses requires specialist knowledge. Large banks have sector expertise, but the sector vies for board and senior management attention with significantly larger financial exposures to all the other economic sectors that a large generalist retail bank must finance. A development bank is needed with clear mission to support the transition in land use and food production by developing appropriate financial products and risk assessment methodologies.

Large banks are under pressure globally and in the UK to play their part in delivering social justice and a safe climate.[72] However, this will take a large-scale change in culture, strategy, risk frameworks, incentives and expertise, and the changes needed in farming and food production cannot wait.

We could follow the successful example of the British Business Bank, now in its fifth year, which has delivered the public goal of improving access to finance for small and medium-sized enterprises in a commercially rigorous way. By being able to borrow and leverage capital, it would avoid limitations that have dogged the UK Green Investment Bank and existing Scottish Government structures like the small Scottish Investment Bank.

The NADB would complement a growing movement in the UK to establish regional banks with place-based limited mandates. The UK has been almost unique among industrial countries in lacking regional banks. The RSA is working with the Community Savings Bank Association to redress this. Such banks are often mission-led, pursuing social or public goals alongside long-term financial profitability. From community banks and credit unions in North America to public savings banks in Europe, and cooperative banks around the world, these regional stakeholder banks outperform their large shareholder-owned counterparts on SME lending and financial inclusion and contribute to regional economic resilience and prosperity.

The government's fiscal rules, which count any debt attributed to any publicly owned financial institution as public sector debt, contributed to the decision to privatise the Green Investment Bank.[73] This approach warrants review, as most other countries exclude public banks from their balance sheets.

DEBATE IT

The picture postcard image of a rural idyll obscures as much as it reveals. We can make so much more of our countryside, with the land delivering multiple benefits for people and planet.

Net hill farming income after EU support is currently just £10,000. Lower intensity farming can improve profitability while improving biodiversity, reducing greenhouse gas emissions and preserving the traditional skills and beauty of the countryside.

Between 2016 and 2021 London will receive more than half of England's transport spend. Rural infrastructure is needed to connect town and country, enabling young people to stay in the countryside, connecting isolated older people and opening routes for city dwellers to escape to the country for a weekend.

Just 10% of land in England is open access. Opening up more of the land to the public would connect people to nature and increase footfall for local business.

Just ten homes in each village would solve the rural housing crisis. New homes, built beautifully and with local materials, would provide affordable housing for local people.

Since 1947, we have lost around 200,000 miles of hedgerow. Carefully managed hedgerows stitch together our countryside, providing wildlife corridors and preventing topsoil erosion and water run-off.

Agroforestry reduces soil erosion by up to 65 percent and increases productivity by 40 percent. Young people in a National Nature Service would lead the way in regenerating the land.

Chapter 4 A countryside that works for all

Imagine a countryside where farming and nature, wildlife and people live in harmony, and where rich and varied opportunities to live, work and play abound. Where the beauty of landscapes are cherished and the communities that support and care for them are valued and supported in turn. Where people living in rural towns and villages can shape and invest in the services they need to adapt and flourish; and where the work for the new regenerative economy enables those communities to thrive, as well as mitigating climate change and reversing the ecosystem crisis. Where the excitement of travel and adventure in the outdoors enriches our lives; and where we can find peace and tranquillity to replenish our health and wellbeing.

"People come here for the lifestyle. Their idea of supporting the village is to bring their mates to the pub on Saturday night. That's great, don't get me wrong. But will they stand for the council? Will they coach the kids football team? Because at the same time the local bloke driving a tractor for a £14,000 salary hasn't got a hope of living in that village."

Mike, Nottinghamshire, UK Tour

The UK has a paradoxical relationship with the countryside. On the one hand our landscapes help us define ourselves as nations. On the other hand, the diversity, complexity and richness of the countryside is poorly understood. From glorified theme parks to the gap on the map urban dwellers cut through between cities, these versions of the countryside bear little relationship to people's everyday experiences in most rural communities; nor do they capture the foundational contribution rural activity must make to a regenerative economy.

During our inquiry we heard vivid stories of the challenges of living and working in the countryside – how hard it is to find affordable places to live, fairly paid work; how public services have been sliced and diced so that – in some communities – it is impossible to find a local school, surgery or police station, a bus or train, phone signals or broadband – or any of the other services that people in towns and cities take for granted.

Too often, secretaries of state for Defra have focussed solely on the environmental and farming parts of their brief, while the rural affairs part of the portfolio, lacking an organised advocate, has been largely ignored. Defra stands for the Department for Environment, Food and Rural Affairs. Yet today, as former chair of the Countryside Agency Lord Cameron has said, Defra can seem 'Def'.

Rural issues are profound and speak to the cultural, geographical and economic shocks reverberating through the Western world. Over the last 40 years, manufacturing and agriculture have declined as the service and financial sectors have grown. The growth of a graduate economy oriented towards a few global cities has contributed to growing inequalities between urban areas and the towns and countryside.

The problems are serious and their remedies complex. The Rural Services Network has called for a comprehensive rural strategy covering housing, digital and material infrastructure, health and social care, SME development and rural crime.[74] At the time of writing it has been endorsed by nearly 300 organisations, including Action for Communities in Rural England (ACRE) and dozens of parish councils, local Campaign to Protect Rural England (CPRE) groups and small businesses. In May 2019, the House of Lords Rural Economy Select Committee reiterated the need for a rural strategy and fleshed out its details.[75] We add our voice to these calls.

In addition to commending their work, we recommend:

A countryside that works for all

And rural communities are a powerhouse for a fair and green economy

1. Establishing a national land use framework in England that inspires cooperation based on the public value of land, mediating and encouraging multipurpose uses

2. Investing in rural infrastructure to underpin the regenerative economy

3. Creating more good work in the regenerative economy

4. Developing sustainable solutions to meet rural housing need

5. Establishing a National Nature Service that employs the energy of young people to kickstart the regenerative economy

4.1 Establishing a national land use framework in England that inspires cooperation based on the public value of land, mediating and encouraging multipurpose uses

Government should establish a land use framework for England, with UK-wide cooperation on cross-border matters. The framework should be governed by an independent Land Use Commission which would operate as a non-departmental public body.

Land is too often seen as doing one thing or another. Debate has tended to follow these polarised lines, with farmers defending their livelihoods against those who want to rewild land currently in agricultural production, and local communities defending green fields against housing developers.

Yet land can and should deliver multiple benefits. Low input farming can improve profit margins, productivity and provide environmental benefits at the same time.[76] Forestry and agroforestry can support sustainable food and timber production, nature restoration and carbon sequestration, but in a siloed system we have failed to capitalise on these benefits. Affordable housing and infrastructure can, with democratic involvement and wise planning, win local support and deliver environmental gains at the same time.[77]

At present, however, governance of land use is fragmented, and we have failed to capitalise on these synergies. An academic debate pitting 'land sparing' against 'land sharing' has focussed on comparing theoretical scenarios, rather than fuelling imaginative and innovative approaches to governing land use to maximise public value.

A framework for land use in England would manage competing pressures on land and encourage multifunctionality. It would develop a common vision for land between often estranged interests – farmers and environmentalists, local residents and developers – and, where disputes do arise, provide a framework for mediation. It would also support different government departments to work together to get the best out of our unique landscape, meeting present needs and preserving it in good shape for generations to come.

In doing so it would support government to deliver initiatives such as affordable homes as outlined in *Fixing Our Broken Housing Market*; delivering key infrastructure as outlined in the National Infrastructure Assessment; and environmental protection and improvement as outlined in the Environment Plan and elsewhere.

A framework for land use in England would learn from the experience of land use strategies in Scotland and Wales, as well as the work of the Land Matters Task Force in Northern Ireland. It must begin by comprehensively mapping England's natural assets and housing and infrastructure needs, with the Agricultural Land Classification, data from compulsory land registration, natural capital data, landscape character assessments and the Landscape Typology Tool providing rich resources. The Countryside Quality Counts survey, administered by the now-defunct Countryside Agency, used to map how the countryside was both enhanced and deteriorated over time. This should be restored by the Land Use Commission.

A framework for land use in England would:

- Compile a comprehensive evidence base: Scotland has produced a Natural Capital Asset Index that maps land capability for agriculture and forestry, as well as projections for the future of land in different climate change scenarios. England can build on the Agricultural Land Classification
- Promote land uses that deliver public value, both through proactive facilitation among government departments and other partners, and when mediating conflict
- Advocate going with the natural geography, recognising and anticipating how it is changing with climate breakdown and biodiversity loss. In short, doing things in places where it makes sense to do it and not, for example, planting crops on a steep slope or building houses on vulnerable coastline
- Advocate going with the social geography – such as investing in infrastructure and housing where people want to live and work
- Protect the value and beauty of landscape
- Encourage Areas of Outstanding Natural Beauty (AONBs), National Parks (NPs) and other protected area designation sites to lead the way
- Help to map a connected-up countryside building on public access networks, and natural capital, to encourage UK leisure and tourism, as well as activities that promote wellbeing
- Act at pace to ensure that land use is central to addressing environmental challenges

Questions over operationalising the framework would be resolved by a future Land Use Commission. We recommend local and regional land use partnerships with the freedom to negotiate solutions that fit local particularities sit within a more general, national framework for land use.[78]

DO IT

4.2 Investing in rural infrastructure to underpin the regenerative economy

Government should ensure local industrial strategies and the UK Shared Prosperity Fund (UKSPF) – the successor to the EU's structural funds – work for rural communities. This would involve rural proofing all investment from local enterprise partnerships and combined authorities; targeting resources at investment in skills and infrastructure for the regenerative economy; aiming funding at maximising public value, not just productivity or growth; and local democratic involvement in disbursement.

Towns and rural areas have seen systematic underinvestment and are struggling with the loss of industry, while a few globally oriented cities dominate the economy, hoovering up jobs, investment and workers. Local government has been hollowed out by successive reductions in allocations forcing cuts to staff and services. Yet government has suggested local industrial strategies and the UKSPF will be administered by LEPs and combined authorities, which have largely failed to adequately consider the needs of rural communities or the environment. They are also set to have raising productivity as their goal, despite the decoupling of productivity and growth from earnings and public value.[79]

Analysis from Locality shows that if the UKSPF maintains the same budget as EU structural funds and allocates resources on the same proportional basis as the rest of UK economic affairs public expenditure, London, Scotland and the east of England are set to be big winners while the rest of England, Wales and Northern Ireland will lose out. Over the next six years London would gain £1.9bn in funding while Wales would lose £2.3bn.[80] This would be a radical redistribution from among the UK's poorest and most rural areas to its wealthiest and most urban.

We propose instead that:

- Resources should be focussed on the economic periphery, much of which is rural, rather than already thriving cities. LEPs and combined authorities should have a statutory duty to rural proof all investment – including that needed for the agroecological transition.
- Government should invest in skills and infrastructure rather than specific projects. Whereas project-based funding tends to overpromise, underdeliver and overspend, investment in skills and infrastructure builds long-term capacity and can help kick-start the regenerative economy.[81]
- Funding should improve public value, not just productivity or growth. There should be a duty (not just encouragement) to cooperate between Local Nature Partnerships (LNPs) and LEPs or combined authorities to ensure environmental concerns are at the forefront of decision-making about disbursement.
- There should be local democratic involvement in the allocation of funding. Locality, Cooperatives UK and the Plunkett Foundation have called for 75 percent of the UKSPF to be distributed by LEPs or combined authorities where they exist, 23 percent by new community-led partnerships between residents, local business, local authorities and community groups, and the final 2 percent going to a new fund to which local communities can bid for small neighbourhood-level projects.[82] We endorse this approach.

DO IT

4.3 Creating more good work in the regenerative economy

The world of work is in flux and debates rage about its future direction. We have a responsibility to create the conditions for new decent jobs that provide meaning, fulfilment and security while also tackling climate change and building the ***regenerative economy****.*

Within agriculture, it remains a challenge for new entrants to make a start and progress. Government should therefore stop further sales of the County Farms Estate, which has halved in the last 40 years, reappraise the Estate, and explore imaginative ways to bring productive land into social ownership for public value.

When thinking about the future of work, policymakers tend to imagine a rise in casual work, self-employment, automation and artificial intelligence (AI). An urban backdrop is often implicit in this vision.

Yet in the countryside these debates are not new, and nor are they simply theoretical. Increased automation is already transforming agriculture while seasonal, casual and gang labour – 98 percent of which is currently done by EU migrants – constitute around 15 percent of all jobs. Self-employment and small businesses are similarly prominent in the rural economy, pre-empting predictions for their growth in the economy at large.

However, the mix and quality of work across the economy is not simply determined by unstoppable global trends. Policy can shape the world of work and it must, both to provide working people dignity and to create the regenerative economy.

To this end, the Commission polled 16-24-year-olds across the UK to find out young people's expectations of and preferences for work. We found that most young people in the countryside want to work there (a preference that increases with age). And whilst most young people living in cities say that is where they prefer to work, over a quarter of young city-dwellers say that they would like to work in the countryside. If these preferences were acted upon we would see a significant rise in young people earning their living in the countryside.

WHAT IS THE REGENERATIVE ECONOMY?

The regenerative economy refers to the integration of social and economic processes that restore and replenish natural and human ecosystems, in contrast to the 'extractive economy' which exploits, uses up and wastes precious limited resources. It expands on the term restoration economy because it encourages integrating regeneration, enhancing ecosystems, and tackling climate change in all aspects of social and economic thinking.

When we asked what kind of business young people would be proud to work for, the top three choices were businesses that protect nature, help to tackle climate change, and help people live healthy lives. Similarly, around 70 percent of young people want to make a positive difference to society with their work. But they also want work that meets more traditional standards. Job security, wages and conditions, and a vocational approach in which people develop specialist technical or professional skills, remain highly important. The jobs of the future must meet the standards people have come to expect while enabling people to improve the world in which we live.

We propose to host a Regenerative Economy Skills Summit to bring together industry, the skills councils, schools, colleges and universities to develop an integrated approach to describing, creating and investing in the world of work the future demands. In the meantime, we invite the Food and Drink Sector Council to consider our findings in their plans.

While employment is an increasingly crucial route into agriculture, farm business ownership remains an important aspiration for new entrants. Government should place a lock on further sales of the County Farms Estate, to ensure that land governed by public values can continue to be available to new farm entrants and innovative food and farming enterprises. This move should also include support for local councils or community trusts with grants to acquire land, and collaboration with estates and institutional land owners, to rebuild a diverse and tiered range of opportunities for entry and progression. A National Agroecology Development Bank (Section 3.5) could play a part in financing this.

TEST IT

4.4 Developing sustainable solutions to meet rural housing need

Government delivers beautiful, affordable and sustainable housing to tackle the rural housing crisis by launching a national initiative for parishes to locate small plots of land suitable for small-scale development, providing meaningful powers for local people over aesthetics and practical support to developers.

All four nations should promote integrated forms of sustainable development, like the One Planet Development scheme and agrivillages.

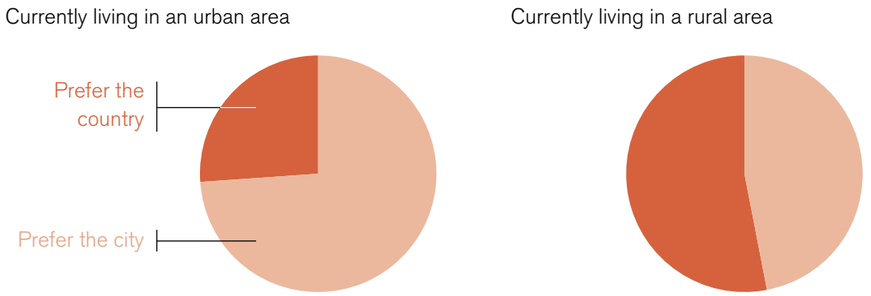
Government and local councils should consider bans, quotas or other restrictions on homes in new developments being built and bought up for reasons other than permanent residence.

The scale of the housing challenge can seem daunting. As we toured the country, we heard many stories of increasing second-home ownership and people retiring to the countryside contributing to rising house prices, reducing community engagement and the viability of local shops and services, and making it harder for young people to find an affordable place to live. Rural communities across the country are being emptied out economically.

Many plans for new development, meanwhile, are resisted by local communities who see the threat of identikit developments paving over the countryside. As the executive director of Green Alliance, Shaun Spiers has written, "the past few decades have seen us pull off the difficult trick of building too few homes while losing too much countryside."[83]

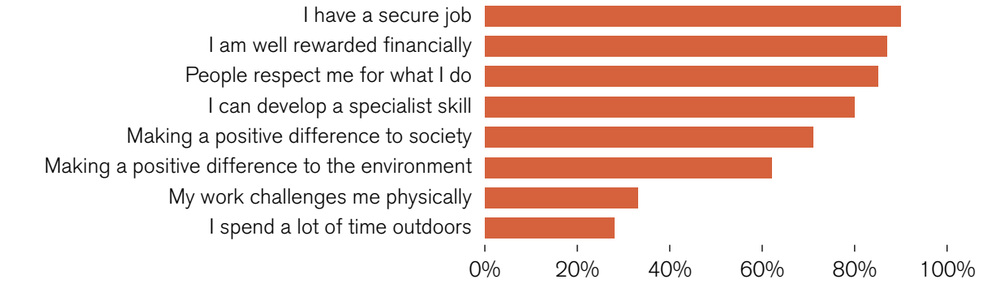
There are around 30,000 villages in the UK. If each village could find enough land for 10 homes it would go a significant way towards addressing the crisis.[84] Recent proposals have called for a community participation agency with citizen juries to ensure a local say over planning.[85] But the Town and Country Planning Act (1990) already gives local people powers over local planning decisions. Town and parish

Where would you prefer to work? (16-24 year olds)



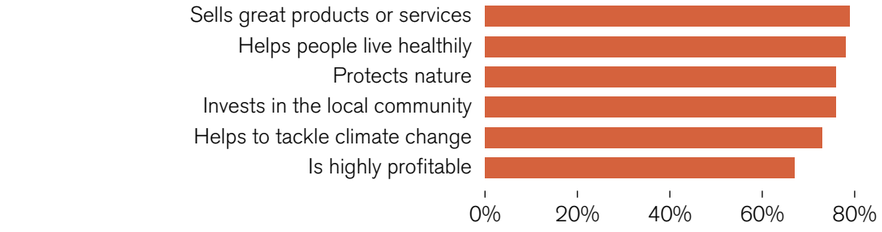
In an ideal working situation, how important are the following?

NET: Important



I would be proud to work for a business that...

NET: Agree



Representative Populus poll of UK 16-24 year olds, May 2019, n=1,006

councils – and local groups in unparished areas – can request from the local planning authority the devolution of planning decisions to neighbourhood fora. Rather than create yet another layer of local democracy, we believe it would be better to lead a campaign that publicised and made the most of these existing powers. Government should then fund housing associations to work with local authorities, including town and parish councils, to deliver the homes that are needed.

Where entirely new developments need to be built, they should be done so in environmentally sustainable ways. Local materials should be used where available, and development should be proportionate in scale and with an aesthetic that blends in to its surroundings. Wales adopted the One Planet Development scheme in 2011, which provides a genuinely affordable and sustainable way for people to live and work on their own land, bringing social, economic and environmental benefits. The nascent concept of agrivillages offers a route for developers and communities who are willing to invest in to a comprehensively sustainable way of life.

Local government can also work to ensure new developments go to those that need them most and have a connection to the area. St Ives in Cornwall and Bamburgh, Beadnell and Seahouses in Northumberland, voted to ensure that new developments are for people's primary residence, not bought as second homes, nor to be rented out as holiday homes. The legality of these decisions has been confirmed in court.[86] This measure will not work for every place and there will need to be exemptions, for example for farmers diversifying by converting old barns. But in places facing acute housing shortages and big disparities between wages and house prices it can go some way towards addressing the balance and strengthening community attachment.

DO IT

4.5 Establishing a National Nature Service employs the energy of young people to kickstart the regenerative economy

Government and partners should establish and fund a voluntary National Nature Service, employing the energy of young people to kickstart the regenerative economy.

Grants could go to farmers, institutions and community groups who come up with projects and provide bed and board, with special support for those who provide work and experience to young people from disadvantaged urban and rural communities.

Aspects of the service could form part of an accredited learning scheme or apprenticeship, providing a route to a vocation in sustainable land work for those who wish to follow this path. It could potentially be extended to the retiring baby boomer generation who have the time and resources to do the work, encouraging them to stay active, engage with their community, bring their skills and experience, and improve the environment.

As our polling work outlined in Section 4.3 shows, there is a real appetite among young people for work that is purposeful and helps heal the environment. A National Nature Service would harness this burgeoning sense of mission to tackle climate change and restore ecosystems. It would be a scheme for 18-25-year-olds, looking to recruit from both disadvantaged rural communities where young people struggle to find work close to home, and from young people looking for an opportunity to experience meaningful work in a natural environment, perhaps between school or college and university.

Additional impetus for this proposal comes from the country's polarisation. There is a growing sense that our country is coming apart along geographical, economic and cultural lines, and the two sides are unable or unwilling to understand the other. A National Nature Service would bring the city to the country in a respectful fashion, enabling cross-cultural dialogue and greater understanding.

In making this recommendation we've drawn on insights from many sources.

- The National Citizenship Service
- The RSA's Cities of Learning project
- The gap year experience where some young people get to express their curiosity, adventure and desire for more connection with nature
- The 60-year-old WWOOF ('Worldwide Working Opportunities On Organic Farms') movement where people exchange their labour for bed, board and skills development, in organic farms in countries all round the world
- The resurgence of the Duke of Edinburgh scheme, and the Scouts and Guides movements
- The United World College (UWC) movement, where testing oneself in service of others has been an integral part of the curriculum for nearly 60 years, and which now extends to 18 UWC colleges around the world and all International Baccalaureate programmes.

This scheme would be co-designed and developed with the young people who are already taking actions in the school climate movements and elsewhere.

DEBATE IT

Chapter 5 A framework for change

From the start, this Commission has sought to blend the radical and the practical, building on the good work already done by others and the tools at hand, to find solutions to the big challenges in front of us.

In this final chapter we set out three tasks to deliver a change programme fit for the challenge:

1. Taking the Public Value Framework to the next level

2. Convening the leadership needed to 'coach the transition'

3. Supporting and sharing practical actions on the ground

5.1 Taking the Public Value Framework to the next level

We know that it takes time to change policy, especially when complex primary legislation is needed. And we don't have much time. We wanted to know what tools are available to us right now to make rapid progress on the pressing issues. So we asked ourselves – in the spirit of reuse and upcycling – what are the creative and practical solutions from the materials we have available?

We were also inspired by the work done in other nations to think more systemically about the foundational principles on which society can prosper. In Bhutan, the Gross National Happiness Index, in Wales, the Wellbeing of Future Generations Act, in Northern Ireland, where wellbeing is embedded in the Programme for Government, and in New Zealand, the Treasury's new Living Standards Framework to improve wellbeing. These are all milestones in a global movement towards more inclusive and sustainable views of social and economic prosperity.

Aligning with the natural capital approach, we built on these three simple principles:

Public money for public goods	▶	all the resources aligned for public value
Polluter pays principle	▶	not just the environment but also health and wellbeing
Net environmental gain	▶	AND fair net social gain

Continuing our search for practical tools, we were pleased to see the Treasury accept the Barber Review introducing a Public Value Framework. This assesses the public value of spending programmes through judging four 'pillars':

- The clarity and ambitiousness of a given goal, as well as the progress that has been made towards it
- How effective the programme is at managing inputs (forecasting, benchmarking, etc)
- The level of citizen engagement (how legitimate it is seen to be as a use of taxpayer money, the level of user participation, and engagement from key stakeholders); and
- The extent to which it develops system capacity as a whole (increasing levels of innovation, workforce capacity, work across organisational boundaries, etc).[87]

Though an important step forward, it has been disappointing to note that it has been slow in its introduction and limited in its scope. NAO found that, "HM Treasury has not yet decided how best to implement the findings of the [Barber] review… Without such a framework, there is a real risk that the system is vulnerable to short-term thinking, which often leads to poor outcomes for those relying on public services and jeopardises value for money."[88] It has been confined to assessing national government decision-making and its overwhelming focus is on improving a narrow and increasingly unhelpful definition of productivity, at the expense of wider and now urgent social and environmental goals.

We have been attracted to the Public Value Framework for another reason too. The discourse around what the public values, what's important to us and where we want to direct our public investment, has become increasingly animated. When business as usual will no longer suffice for critical areas of the economy, collaborative and thoughtful consideration of what we really value, as a society and in our communities, is now imperative.

New initiatives take time to design, agree and embed. The Commission therefore proposes using and extending the Public Value Framework in three important ways.[89]

Strengthened citizen involvement across all pillars

As our bike tour demonstrated, people across the countryside feel disconnected from the decisions which affect their lives. Citizen engagement is one of the four pillars of the Barber Review. It has three components: public/taxpayer legitimacy – an awareness of public opinion and a strategy to improve public support; user experience and participation – understanding how engaged citizens will be in the service; and engagement with influential stakeholders.[90]

A more radical framework could extend citizen involvement and engagement, which allow local people to shape processes from inception and goal setting to completion and implementation. Further, the concerns of future generations must also be considered, as well as the impact on citizens in other parts of the world. Finally, the interests of those without a voice – the natural world and future human generations – also need to be included, from biodiversity to animal welfare to a liveable planet.

Our Northern Ireland inquiry, described in the *Field Guide for the Future*, embodied these principles of strengthened citizen participation from early design and throughout their work. As they explain in their account, this was felt to be particularly important in the Northern Irish social and political context.

Forecasting for public value – whose data counts?

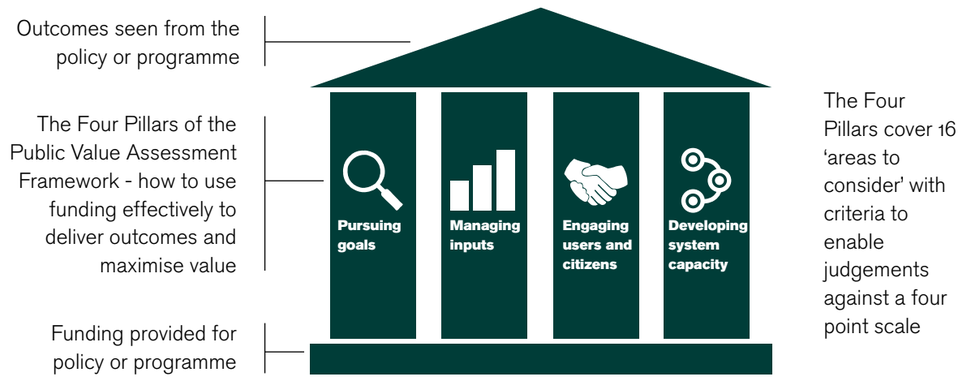
The Public Value Framework is used to determine how best to coordinate resources to maximise public value. Some of this work will inevitably involve government, public bodies and the private sector weighing up the public value benefits of competing policies, deciding which to invest in. Any future framework, therefore, will have to take care to avoid basing its decisions on what will provide public value on faulty forecasts or incomplete data.

Oxford University economic geographer Professor Bent Flyvbjerg is an expert in major projects leadership – the high cost, national-critical, politically sensitive and technically challenging projects that take up so much public money and attention. He shows that too often the evidence for decision-making comes from narrow technical, professional or academic knowledge systems, advocating for their own interests and policy siloes in the guise of neutrality.

As we set out in this report, if we bring health and wellbeing data together with agricultural policy data, rural policy data and climate data, our perspective on the whole system changes substantially. This is not just theoretical. Flyvbjerg's work has recently been cited in relation to HS2 and the Oxford-Milton Keynes-Cambridge Arc, both of which have significantly exceeded their initial projected costs.[91]

To accurately calculate public value, therefore, the Public Value Framework will have to be sceptical of the claims made by lobbyists for their specific proposals and instead seek out a whole systems perspective. Therefore, we propose extending the Public Value Framework to bring a systematic and whole systems approach to those cross-cutting themes between departments.

Box 9: The Public Value Framework



An expanded scope – aligning the whole resource for public value

The Public Value Framework emerged out of discussions about public body decision-making. It has hitherto remained confined in scope to the functioning of government departments. It has had little to say about the many other ways in which public value is created and lost, and what meaningful public engagement might be beyond citizen consultations.

An expanded framework would consider all the ways in which resources flow through food, farming and the countryside to give an accurate picture of what generates and what depletes public value. We think four are particularly important.

Value in supply chains

The shift towards consolidated and vertically integrated value chains in the whole food system has had far-reaching impacts.

On the one hand, integrated vertical supply chains bring consistency and control into a highly dispersed sector; processing and packaging makes food more safe and secure especially in poor and isolated communities; and people can buy the widest variety of foods ever available.

On the other hand, the evidence suggests that this globalised and monopolistic food system has huge impacts on local and national economies in ways that are hard to measure and even harder to constrain. In consolidating their power and influence, both horizontally, in their share of the market, and vertically, through controlling the whole value chain, those companies go so far as to exert control over national policy choices. This extends right across the whole food system and associated sectors – from seeds and chemicals, machinery, livestock production and food processing, to food retail and service. This has brought great benefits to company balance sheets and shareholder value, it has had enormous impacts on people, communities and the planet. What used to be a broadly sustainable **circular economy** on farms and local food systems has become a global, linear value chain with negative consequences to soil, water, climate, animal welfare and human health. A whole system view of public value needs a clear assessment of all the ways in which value is enhanced or depleted in the food system, so that the cost of these myriad externalities is no longer paid by citizens.

Value in place

At a local or regional level, public money is currently directed through multiple budgets and augmented by local taxes. As earlier whole place initiatives have demonstrated, it is enormously difficult to assess the spending of even the main statutory organisations – health, local government, justice, welfare and so on.[92] With different boundaries, and different accounting frameworks, the task becomes quickly unmanageable. Wales and Scotland have made their own moves to improve place-based and horizontal local connections, but in England it is different. We discussed in Chapter 4 how important it is to align and democratise public investments to revitalise rural communities. But as well as public money there are significant sums of private and NGO money that make material differences in the communities. For example, the National Trust is a major landowner and landlord; RSPB makes major ecosystem investments; Cargill invests in intensive poultry production in parts of the country (Herefordshire and Shropshire, for example). All these have significant impacts on public life.

Currently our way of identifying and accounting for the private and NGO money is fragmented and opaque, especially for citizens.

Value in social processes – the hidden resource

From the value of unpaid care in the UK – estimated by the NAO to be worth £57bn to £100bn per year – to the everyday services provided by farmers – snow and flood support, landscape and beauty – often the things that the public values the most are derived from the work that is least rewarded.[93] This is important because when we don't 'see' and identify these things, they are rendered invisible and it becomes much more difficult to manage, support or protect them. Conversely, in naming and measuring them, we can have better, more productive and inclusive conversations about what matters to people in their communities and what they want to invest in.

As a Commission, we have found it hard to do what we are advocating here. Information is hard to find, hard to access, collected and codified in different ways – and it all ends up in the 'too hard' box. But we are convinced that it is an essential task in bringing new transparency and openness to our public discourse. In the country with the fifth largest economy in the world, when we are having to make hard choices about how and where to generate public funds and how to invest that public money, we need to know: where is the value in the system now, who is taking the risks and who is reaping the rewards?

With better information, we would all be able to contribute through transparent public processes nationally and locally to debates about how best to align these resources for public value, to work towards our objective: a safe, secure, inclusive food and farming system for the UK, a flourishing rural economy and a sustainable and accessible countryside. Our proposal for extending community food plans is a practical example of this.

Protecting public value against extractive activities

The final reason that we favour a Public Value Framework is that it invites discussion of the other side of the coin, addressing more directly and explicitly those actions which deplete public value. In other papers we have drawn attention to the ways in which strategic interventions in one department have added costs in another department. BEIS' industrial strategy, for example, pushes intensive, productive agriculture leaving Defra - and the public purse - to pick up the cost of mitigating the environmental consequences of the strategy. And we have underlined how the absence of a food policy focussed on health and wellbeing enables

WHAT IS THE CIRCULAR ECONOMY?

The Commission follows the Ellen MacArthur Foundation in defining the circular economy as an approach that "redefines growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles: designing out waste and pollution; keeping products and materials in use; regenerating natural systems."

food businesses to profit from selling unhealthy food, with those costs borne in the NHS, social care and in lost years of fitness to work for households and families.

At a time when all resources should be directed towards the most important challenges that society faces, it is no longer acceptable for businesses to avoid paying the true cost of their enterprise.

Throughout the report we have set out measures to stop value depletion, extending the Polluter Pays principle across the whole food system, extending and hypothecating taxes on high sugar, salt and trans fat foods, restricting marketing and introducing an advertising levy on unhealthy foods to subsidise campaigns for healthy eating.

5.2 Convening the leadership needed to coach the transition

As we set out in Chapter 1, the Commission argues that a new approach to leadership is now needed.

We live in an age of increasing polarisation and populism – an unsettling situation for the UK. Identity politics, or tribalism, makes it much more difficult to break through echo chambers and entrenched positions, to explore evidence-based analysis and come to considered consensus to decide on the best way forward.

The complexity and magnitude of the changes we need to make, across governments, businesses and civic society, mean that policy proposals, or a conventional change programme alone, will simply not suffice.

Commissioners are drawn from a variety of backgrounds, sectors which have not often, in the past, been brought together to consider the whole food, farming and countryside sectors, as a system. Many have served on other Commissions and taskforces, past and present, and have pondered long and hard about what it takes to turn radical proposals into practical actions, at the scale and pace necessary to respond to the huge issues we face. Our approach has been shaped by these experiences. We conclude:

- A different kind of distributed systems leadership is needed
- Better ideas and solutions tend to come when different perspectives are heard, understood and tested, and especially by the people who have real 'skin in the game'
- Serious and robust change takes time, akin to 'coaching' the system into a new way of working

We considered the Change Equation, which has underpinned countless change programmes in the 50 years it has been in use.

D x V x M > P(c)

It is a simple device that explains that the product of D, dissatisfaction with the current situation, V, a better, more compelling version of the future, M, the means to get there, must be greater than P, the pain or the cost of the change.[94] And if there is a low value in any of those components, then the capacity for change is not likely to overcome the pain associated with that change.

We noted that in relation to our work:

1. Not everyone is that dissatisfied with their present situation. In fact, some people are well served by how things are

2. Not everyone shares the same vision of a better future, especially if they perceive they will have to give up things they like

3. Many people don't know what they will need to do to get from where we are now to where we need to be

4. Change will require some difficult and paradigm-changing political and public conversations, to be able to make the necessary decisions, as well as considerable investment in the transition programme.

In practical terms, what we conclude from this is that we need more sensitive and nuanced leadership much closer to communities – from parishes, to towns, to regions. These will be able to respond more effectively to different dissatisfactions, co-creating versions of a better future and designing more responsive, radical and practical means of getting there.

BOX 10: HOW WE HAVE GROUPED OUR PRACTICAL ACTIONS

DO IT

Do it - The quick wins, where we already have the practices available to us but we need new impetus to use them effectively. For example, a world-leading drive to normalise sustainable and healthy procurement for public value across the public estate.

- Targets delivered by good project management

TEST IT

Test it - Where there is now good enough consensus and where policy needs to catch up with public appetite. For example, rebalancing agricultural research investment putting farmers in the driving seat, and focussed on producing food while restoring nature.

- Strategic leadership, backed by policy levers

DEBATE IT

Debate it - The deeply contested issues, where important choices need to be exposed and which can only be resolved by inclusive and balanced debate and courageous collective leadership. For example, how the public can be won round to eating less, and better, meat; and how companies can change their businesses for net positive effect.

- Deliberative and collaborative processes involving 'the whole system'

Balancing rapid progress and difficult choices

There is no easy route through to the big changes needed. Rather we need an adaptable and nuanced process, which appreciates and works with very different interests, building consensus and focussing on cultivating common ground. To that end, we have used the framework in Box 10, noting that similar ones have been adopted in other countries, such as by the Nordics Food Lab.

Commissioners are committed to continuing to bring their leadership, from their sectors and their networks, together across the whole system, to help coach the system through the unpredictable, volatile and uncertain times ahead.

In tackling the challenges in front of us, we can learn from countries around the world who have already had to respond to incredibly tough challenges – post-apartheid South Africa, the Northern Ireland peace process, the Republic of Ireland abortion legislation, reconciliation in Rwanda – about what it takes to make system wide and practical progress on the really difficult issues. We have picked out five key practices in the box below, which we aimed to enact in our inquiry process.[95]

The Commission therefore recognises the importance of a much more decentralised and devolved pattern of governance than currently exists in the UK – and especially in England. Central government needs to model these five key practices, of course, but it must also place much higher levels of trust in local leaders, business leaders and communities and grant them the powers and resources to unleash the changes set out in this report. The Commission shares the view with others that we need to work across the whole system turning current crises into real opportunities, building on proven small-scale examples of what is working. This helps to align and focus the increasing sense of urgency and intention to act across all parts of society.

An early action has been to convene more farming and food system leaders to continue to work on the farming transition.

Leading whole systems

1. We have talked already about a **new public leadership** which is less about the strong hero leaders and more about collaborative and distributive leadership, which focusses on creating the right conditions for progress to be made.

2. We need more ways for **meeting differently** – to create better conditions for collaboration, inquiry, experimentation and learning. New meeting settings and formats are needed, different to the usual set pieces. In practical terms, this means things like meeting people where they are in the places where they are most comfortable.

3. Keeping the whole system in the room and **valuing difference**, so that we can keep sighted on all perspectives, be forewarned about potential unintended consequences, and bring in fresh information we might not have otherwise considered.

4. In times of rapid change and when we're seeking to do things we have never done before, the key skill is **learning together** in well-designed public forums, outside of our usual echo chambers, with curiosity, respect and gracefulness.

5. **Sticking with it**. Far-reaching change on difficult issues can be hard, painstaking work. It is often tough to stay engaged in difficult discussions when they touch on deeply held beliefs. Tim Jackson talks about the seduction of the new; others call it initiative-itis. Making and keeping commitments to keep going and follow through, staying in the conversation, are possibly the most important skills we can develop as we come together to focus relentlessly on the action we need.

5.3 Supporting and sharing practical actions

Our method of inquiry took us right round the country, seeking out the voices that are not always heard and the different kinds of evidence that are not always brought together. We told some of the stories in our *Fork in the Road* book.

In setting up our locally led and devolved nation inquiries, we started with a little humility, not assuming too much or shaping the inquiry too tightly, giving space to those groups to bring the issues that really mattered to them to the fore, to share their experience and their lived expertise, and to test out the practical answers. We sought out trusted local leaders to help us with our inquiry and to tell us how our process of inquiry could also help them with their concerns.

In the *Field Guide for the Future*, we show how leadership is already taken up by people in civic society, nationally and in communities around the UK. People are getting on with the things that are important. When we call for a new leadership we mean one that is distributed throughout communities, crafting solutions that work for the citizens that need them.

We are convinced it is essential to work at many levels to be able to make the rapid progress we need, with both national policy and strategy, and regional and local practices.

We found so often that people are getting on and doing things despite sometimes difficult circumstances. A prime role of leadership is creating and upholding the conditions to support people taking actions for change – providing the resources (technical, financial, knowledge, skills, mentoring, connecting) for those groups and places who are already innovating, experimenting and persisting.

This has two important effects. First, more resilient communities will be able to adapt to and withstand the shocks that may arise in years to come – especially those communities on the frontline, such as coastal communities and those that have relied on carbon-demanding industries. Second, politics responds to people. Politicians find it much easier to exercise their leadership when they know they are reflecting what their communities want from them, and in turn, they can make sure that the national policies create the right conditions for people to flourish. Between top-down and bottom-up there is a dynamic relationship, there to be harnessed for positive change.

We also heard how much people value seeing and hearing stories which inspire them, especially from people with whom they have something common. We have described how this can be enhanced and spread in the recommendations and we tell stories of learning and change in the field guide.

Join us for more in the *Field Guide for the Future*. The future is in our hands.

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