

A blueprint for agricultural land use and food production in the UK

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Farmwel is working to generate momentum towards sustainable and accountable mainstream agriculture and aquaculture, focussing on the environment, people's livelihoods, and farm animal welfare. Our work is supported by the expertise of FAI Farms, a globally respected Oxford-based farm consultancy which helps the food-sector overcome key challenges and implement better farming practices, on land and at sea. Our goals for secure and sustainable food are supported by other important groups such as the Food Ethics Council.

This blueprint is written in partnership with the Conservative Animal Welfare Foundation. CAWF was established to raise awareness on the lives of billions of animals reared on intensive farms around the world and how this impacts upon animal welfare, the environment and people's health. Consumers' growing interest in how animals are treated on farms and in livestock facilities has created a strong demand for further information. Animal welfare is an increasing concern amongst the general public, who frequently look to Government to take the lead in both maintaining and improving standards.

Vision

- A prosperous, innovative, and resilient food industry
- Restoring and balancing natural capital, so that our farm land continues to provide good food forever
- High quality sustainable food, standards, and technologies that we can export proudly around the world

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Introduction

The Common Agricultural Policy has arguably provided cheap food for the consumer, but at a high cost to the taxpayer and the citizen. EU policy-makers, in failing to address the real costs associated with both production and production externalities, have built in a structural deficit in food prices and natural capital, which we must now take action to reduce.

Brexit provides the necessary systemic disruption, and therefore the opportunity, to reform land use and food policies. Our challenge is to create a leadership model for the twenty first century, in which farmers thrive, citizens eat well, nature's equilibrium is restored, and a dynamic market supports production and innovation.

For Britain's farmers economic growth and good ethical and environmental outcomes should be considered interdependent. In the short term, we must become more competitive. While greater efficiency will help cut waste, our farmers must also add value to basic food products. Ethical, environmental, and welfare quality have become essential commodities for Britain to trade successfully at home and around the world.

This trade in quality will also protect British food businesses in the medium term. We know that we're approaching high risk thresholds in terms of biodiversity loss, soil quality, and carbon pollution. There is also increasing awareness of farm animal welfare issues amongst consumers. By adapting in a timely manner; investing as we grow, we can ensure that we have rich and robust food systems far into the future.

Our vision is ambitious but realistic, based on the needs of the market, the expectations of British people, and the demands of the natural environment. We seek a new long term settlement for UK food production, which establishes the necessary foundations for a strong trading relationship with the world, insures our farmers against the risk of natural degradation, and provides the rural economy with the long term independence it needs to adapt and thrive.

A. The future of UK farming

1. Brexit provides an opportunity to take back control of agricultural land use and food policy, and to create a new model of farming excellence. In repatriating our ambition we can deliver a fundamental change, transforming farming into a thriving industry that sets the global standard for high quality sustainable food production. Where EU laws are helpful, for example farm animal welfare and environmental standards, they should be fully transposed, but Britain must set its sights higher. An industrial strategy for food production should aim to compete on excellence, improve return on investment, trim waste, and export high quality, intellectual property, and new technology.
2. The CAP should be abolished. In its drive to maintain supply, Europe's farm policy has created a systemic imbalance in the financing of food production, with farmers, taxpayers and consumers bearing the burden. Despite the CAP many farmers, particularly those running small and medium-sized businesses, are struggling

to stay afloat. This is unsustainable. It lowers the morale of producers and has led to an unsympathetic disconnect between farmers and other citizens.

3. Between now and 2030, we anticipate growth in the number of large farms that supply volume products for major retailers. These farms could produce basic food items using precision-agriculture, clean agricultural robots and electric vehicles, and deliver excellent sustainability outcomes. We also expect to see growth in the number of small and medium-size farm businesses and co-operatives that supply branded and artisan products direct to the public and to retailers.

B. Public payments

4. While farm payments remain tied to production neither producers nor citizens are well served. Public funding of agriculture is important, but for decades it has been used to direct the market place, often at the expense of our natural capital. Funding should remain in place, at least in the medium term, as the transition to a more sustainable and market-oriented food production and land use model is established.
5. However, farmers run independent businesses and supply should respond to market forces and be rewarded by consumers. Public funds should not be used to support or distort trade.
6. Public funds should be re-directed to pay for the public goods and environmental services that the market is less able to reward, to arrest land system degradation and finance adaptation. They should help preserve and restore Britain's natural capital in aggregate. Revenue should be collected from the use of non-renewable assets, such as the extraction and use of fossil fuels and irreplaceable ground water, and then put to work preserving renewable assets, such as the soil, biodiversity, water sources, the atmosphere and ancient woodland. Public payments should also underpin improvements in farm animal welfare standards. This form of public support is endorsed by the WTO under its Green Box rules.
7. Incentives should be introduced for farm businesses that generate their own energy, and invest in clean energy robots and farm vehicles.

C. The role of the market

8. Consumers should pay a realistic price for food, and reward high quality and value-added food production. However, research shows that the market is generally distorted against producers working to higher health, environmental, and welfare quality standards, and that action may be required to create a level playing field.
9. Simple interventions such as mandatory origin labelling of meat and dairy products (country, and method of production) help to nudge sustainable choices, and create a level playing field for added-value producers. These labels ensure that consumers can easily compare like-for-like products as they shop. Evidence shows that over half of consumers are motivated to pay more for products from higher welfare and more environmentally sustainable farm systems when these labels are in place. When labels are underpinned by

robust outcome-based assessments consumer confidence is greater still. Additional transparency means that consumers can play their role as citizens and help to drive and support high quality British food.

D. Legal framework

- I0. The laws that govern food production and land use should be clear, consistent and outcome-focussed. All UK agricultural products should be produced to high environmental and farm animal welfare standards in order that the Great British brand is resilient globally and at home. EU Directives that protect farm animal welfare and the environmental should be fully transposed, and should be strengthened.
- I1. Our environmental and welfare standards and our labelling laws should also apply to imported products. WTO case law demonstrates that countries may require imports to meet their own ethical standards provided there is no element of discrimination in favour of domestic products.
- I2. A national policy framework, building on Farmwel's pillars and goals for secure and sustainable agriculture (see Appendix One and Two, below), should be developed and published. This framework should establish conditions for public payments, based on delivery of the public goods associated with the pillars and goals. The framework should establish the context for change, and allow scope for local and regional interpretation and adaptation.

E. Decentralised decision-making

- I3. A regional mechanism should be established to engage countryside stakeholder groups, particularly those with an interest in public goods. These regional bodies should be empowered to work with farmers to identify and deliver regional priorities, such as flood prevention, landscape management, or access.
- I4. Farm businesses wishing to receive public support would need to demonstrate public benefit and become accountable to the public.
- I5. Rolling five year plans should be developed with certifying bodies to demonstrate progress towards the national policy framework's pillars and goals. Not all goals will be relevant to all farms, and regional priorities should be taken into account. Plans should be published on-line, open to public comment, and progress assessed annually.
- I6. Public payments should be administered by Defra or devolved national governments, but assessed at local or regional level by private schemes. It may be possible for existing schemes such as Red Tractor and RSPCA Freedom Food, to adapt and develop their business models and expertise. Equally there should be room for new entrants, including, for example, retailer schemes, or schemes run by national parks.

F. Capital costs

17. It will also be necessary to consider the best way to finance capital expenditure, for example new barns, electric vehicles, or clean energy production. As well as grants, government should investigate innovative options for supporting capital costs, such as match-funding, incentives for community investment schemes, and loans from the Green Investment Bank.
18. A food system built on high ethical and environmental quality will deliver an improved return on investment for both the economy as a whole, and individual farm businesses. Public payments targeted at environmental services will deliver a high value return on investment in renewable natural capital. Individual farm system upgrades that are efficiently communicated to consumers will help increase profit margins, reduce pay-back periods, and provide opportunities for further investment.

G. Good jobs

19. To deliver change at scale the food and farming industry must be encouraged to invest in a workforce committed to excellence. Arguably EU migration contributed to a free market in labour that undermined local wages and employment conditions. Improved standards, stable employment, and a living wage should become normal for farm workers in order that farm labour becomes more attractive to UK citizens.
20. Consideration should be given to establishing a new Agricultural Wages Board, such as exists in Scotland.

H. Improved farm animal welfare

21. Welfare quality is greatly valued by British citizens and consumers. Special Eurobarometer 442, published in 2016, found that 98% of British people believe that protecting the welfare of farmed animals is very important. 76% said that welfare standards should be improved.
22. In fact, well run sustainable farming systems are synonymous with good animal welfare. By contrast, intensive livestock systems rely on inefficient and petrochemical-dependent land use, and drive poor bio-diversity and soil quality outcomes. Selecting livestock breeds and farming systems that are suitable for the local environment, coupled with good animal husbandry, can help to achieve optimal animal health, welfare, and environmental outcomes.
23. Consumer choice plays an important role in supporting and driving standards, but public payments should also be used. Welfare outcome measurements, including behavioural outcomes, should become a required route to market for farms in receipt of public funds. Farm animals should be able to express natural behaviour, meaning that caged systems should not be supported with public money.
24. Routine behavioural mutilations should be quickly phased out to protect both farm animals and the British brand. Good management in extensive indoor and outdoor farm systems eliminate the need for routine behavioural mutilations, such as piglet tail docking and tooth clipping.

25. Animals reared in Britain should be slaughtered in Britain, and abattoirs should develop a more open, market-facing approach to slaughter. This could include CCTV at the slaughter line, as well as non-discriminatory method of slaughter labelling.

I. Food waste, system inefficiencies, and healthy diets

26. Food waste should be defined as both food which is physically thrown away, and as over-consumption. Human consumption in excess of dietary needs is a key factor in driving food system inefficiency. Recent research has shown that 48.4% of harvested crops are wasted when these factors are considered together. Government and the food industry should work together to improve food system efficiency by reducing over-purchasing and over-consumption.

27. Adult obesity in England reached 26% in 2014, and 1 in 3 children are now overweight or obese by the age of 11. Obesity is a major contributor to heart disease, type 2 diabetes, high blood pressure, and osteoarthritis. A McKinsey and Company report in 2014 identified that obesity costs the UK economy £47 billion annually, including a direct cost to the NHS of £6bn – £8bn.

28. Nudging people to eat tasty, balanced, and nutritious meals is the best way ensure that the spiraling costs of the NHS are arrested, and that our health service remains free at the point of delivery and fit for purpose in the 21st Century. A shift in focus from emergency intervention and crisis management, to prevention through smart eating and regular health monitoring, is arguably long overdue.

29. Cooking, domestic science, and dietary planning should become a requirement for all pupils in UK schools. Additional support could also be given to initiatives such as the Eat Well Plate, and Food For Life.

30. Food waste is also systemic and contributes to land use inefficiency. Around 56% of EU cereal production is for animal feed, and yet for every 100 calories of human-edible crops fed to livestock, we receive only around 40 calories from milk, 22 from eggs, 12 from pork, and 3 calories from beef. Protein conversion rates are similarly low. High consumption of meat and dairy products creates inefficient land use, and contributes disproportionately to an imbalance in natural capital. Land use inefficiencies can be addressed by allowing the market to more accurately reflect the costs of production. Additionally, public procurement at all levels should prioritise food produced sustainably, and do more to provide balanced meals.

31. Intensive livestock production has led to a sharp increase in the routine use of antibiotics. In turn this has contributed to a dangerous rise in antimicrobial resistant pathogens affecting people. Government should require an end to the routine use of antibiotics for the prevention of disease, and the phasing out in animal agriculture of the use of 'highest priority critically important antibiotics', defined by the WHO for human medicine. A shift to sustainable farm systems with good outcome-based assessments will naturally help to reduce antibiotics use, and contribute to improved human health outcomes. In addition, a government-

backed coalition between veterinary, medical, environmental and farming professional organisations would provide the multi-disciplinary 'One Health' approach that is needed to improve data collection and promote reduction, replacement and refinement of antimicrobial use in all species, as recommended in the 2016 Review on Antimicrobial Resistance.

32. Further progress should also be taken towards a circular economy for food. From field to fork lean management can improve efficiency at all stages of food production. A circular economy strategy should be developed with food industry stakeholders to help replace conventional linear supply chains and ensure that by-products and waste products are efficiently utilised. A successful strategy will appeal to consumers, nudging them to be more pro-active in their role as citizens. Clear food labelling will be important in developing this approach.

Appendix One

Secure and sustainable food – Strategic pillars

In our view, public policy for agricultural land use should be constructed around three strategic pillars.

Pillar one – Mitigating greenhouse gas pollution

Food systems account for up to 29% of global greenhouse gas emissions, within which agriculture accounts for up to 86%. There is an urgent need for a managed transition to systems and technologies that swiftly reduce the impact of food production on global warming by reducing carbon, methane and nitrogen emissions. We should take action to increase carbon sequestration through effective soil management, to increase renewable energy production from farm land, and to implement new technologies that reduce our reliance on oil-hungry farm machinery.

Pillar two – Integration with biodiversity

Biodiversity boosts productivity. It includes the microbial life forms that improve soil health, as well as the plants, insects, birds, and larger mammals we generally associate with the countryside. Unfortunately, our biodiversity is in dramatic decline. The RSPB's State of Nature report in 2013 showed that 60% of UK species have declined over the last 50 years, and 31% have declined strongly. Good integration between agriculture and biodiversity will require that measures are taken to improve the land's productivity and resilience.

Pillar three – Feeding people well

Good food helps people to work hard and enjoy a happy life. In transforming UK food production to an affordable and sustainable model we will improve people's desire and ability to work, and reduce the burden of ill health on the economy and on the NHS. A McKinsey and Company report in 2014 found that obesity alone cost the UK economy £47bn a year (3% of GDP). In the future, tasty, nutritious food should be produced to high ethical and environmental standards by people who feel proud of what they do and valued in their work. When high standards are communicated effectively to consumers, more citizens will be able play a role in motivating and rewarding producers who take risks and invest in better systems and good quality products.

Appendix Two

Policy goals for secure and sustainable food

The next layer of policy architecture should be tactical. We have developed a number of clear goals, which when delivered together will ensure food produced in the United Kingdom is economically, environmentally, and ethically sustainable.

Goals for Secure and Sustainable Food – All farmed food, on land or at sea

Farming families

- All farms, on land or at sea, are profitable
- A good life for all farm workers
- A vibrant industry provides opportunities for new entrants

Communities

- Diets are healthy and diverse
- Farms contribute to community life and rural development
- Every farm improves the climate resilience of its surrounding landscape

Farm animals and nature

- No routine behavioural mutilations
- Every farm animal has the freedom to express natural behaviour
- Biodiversity is increasing on all farms
- No routine use of antibiotics

Environment

- Farms have healthy soil and clean water
- Farms are net exporters of energy
- Farms are waste and carbon neutral
- Farms have good water management and are weather-resistant

Framework

- Financial support is targeted to deliver sustainable food production
- Legislation protects the welfare of all farm animals
- Farm system labelling on all products
- Outcome-based assessments are required as a route to market