



Financing nature-positive transition in the agriculture sector

June 2022



NatWest
Group

In this paper, **Maria Carvalho, NatWest Group's Head of Climate Economics and Data**, outlines the requirements and challenges of UK food system change and how private finance can profitably support net-zero, regenerative agriculture.



Dr Maria Carvalho has over 13 years of research and advisory experience for international institutions, governments and the private sector, setting policies and plans to decarbonise the economy, with a strong focus on achieving net-zero goals. Maria previously worked as the Head of Public Affairs at South Pole. Prior to that she worked as an analyst for the Grantham Research Institute on Climate Change and the Environment, and at New Energy Finance.

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Executive summary

- A more sustainable UK food system will bring economic and environmental resilience to farmers, consumers, the economy, and the planet.
- Near-term infrastructure investments are needed for sustainable transition plans.
- Policy incentives have to be ambitious enough in size and scope to reward sustainable farming practices towards reaching net-zero targets.
- Bridging the investment gap requires scaling the information and access to green finance.
- Financing also needs to help provide innovative solutions for managing the industrial food system.
- A common set of metrics adopted across the food system (from farms, food retailers, policy incentives and financial solutions) are essential to measure sustainable outcomes in farming practices.

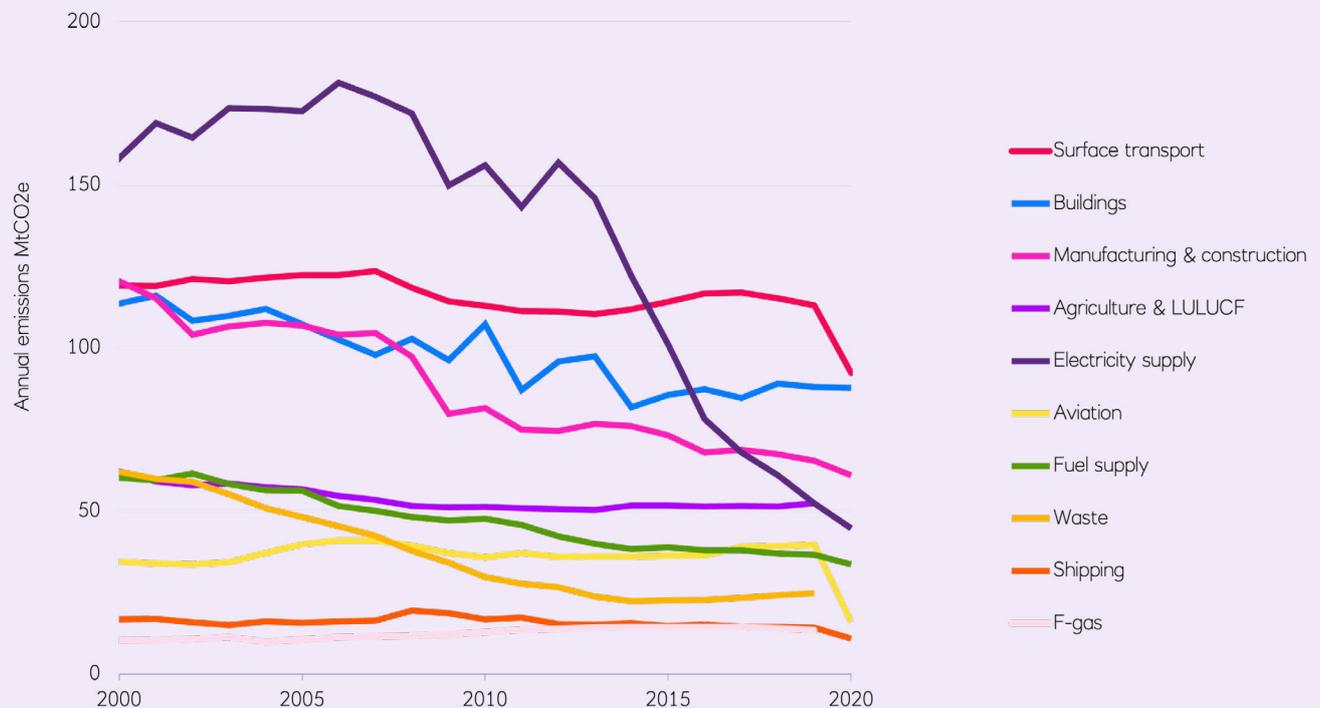


The reckoning of the modern industrial food system

A more sustainable solution is required for the UK's food system, ensuring longer-term benefits and security to farmers, consumers, the economy, and the planet. As such, significant change is needed across the entire food system to address the multiple environmental, societal and economic issues embedded in our current agricultural systems. Foremost among these are the twin crises of climate change and biodiversity loss, alongside the economic pressures of increasing input prices for farmers.

It's estimated that the UK agriculture sector currently contributes a large proportion of the country's territorial greenhouse gases (GHG), with over 10% of the UK's emissions being attributed to farming and land management¹. Critically, though, unlike other sectors, these emissions aren't reducing at the rates needed to meet the UK net zero-target².

Figure 1: GHG sector emissions in the UK



Source: BEIS (2021) 2020 UK Greenhouse Gas Emissions, Provisional Figures

1 Source: BEIS (2021) 2020 UK Greenhouse Gas Emissions, Provisional Figures
 2 Source: BEIS (2021) 2020 UK Greenhouse Gas Emissions, Provisional Figures (data for agricultural sector available to 2019)

The UK is also ranked in the lowest 10% of countries globally when it comes to biodiversity³, impacted by centuries of agricultural intensification which have taken a large ecological toll on our natural systems – depleting soils of nutrients, polluting rivers and degrading habitats. Indeed, the very methods that made agricultural areas productive – such as field amalgamation, and a move away from mixed farming with the use of artificial

fertilisers – now face serious challenges in terms of their long-term economic and environmental viability.

However, as 70% of the UK’s landmass is used for agriculture⁴, there is a real opportunity for the farming sector to make a significant environmental difference, leading on reversing the declines of nature by adopting more sustainable practices.



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Source: <https://doi.org/10.5519/qd.25nvr66k>.
Source: WWF – Land of Plenty, February 2022

A time of change

Modern UK agriculture is also under increased pressure from other factors. Farmers are already feeling the effects of a changing climate, with extreme weather events now becoming more frequent and more impactful from a production and a cost perspective.

Meanwhile, consumer sentiment is also shifting, with greater demand for sustainable produce and reductions in red meat and dairy consumption just a couple of examples of how dietary change is affecting upstream food production. Encouragingly, consumers are also looking to buy locally as a way of reducing emissions associated with food transport.

A more sustainable approach to food is not just coming directly from consumers, but also investors. Specifically, food retailers are now increasingly challenged by their shareholders to be transparent and accountable for the carbon and environmental footprint of their supply

chains. And with an acceleration towards healthier, seasonal diets also a big part of enabling wider food system change, farmers need to be supported with financial and logistical assistance in how they deliver more high-quality, low-impact food.

Most recently, some of the endemic problems of the modern industrial food system have been exposed as a result of the Russian invasion of Ukraine. Increased prices for fuel, feed and fertilisers have meant that the input costs of existing farm production methods have become cripplingly expensive for farmers who are then often unable to pass on the full increase to food retailers looking to minimise price rises for consumers. Moving to more sustainable alternatives, such as reducing artificial fertiliser use and managing organic nutrients through regenerative soil practices, not only makes environmental sense but also increasingly represents sound commercial logic.

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The need for private financing

In response to these crises in ecology, climate and food security, the Department of Food and Rural Affairs introduced new policy reforms to agricultural subsidies in 2021 that will be phased in over several years to 2027.

Rather than pay farmers to use the land, both farmers and landowners will be financially rewarded for demonstrating that they have taken more sustainable forms of agriculture and land management, such as improving soil health, increased planting of hedgerows, trees, and the restoration of peatland.

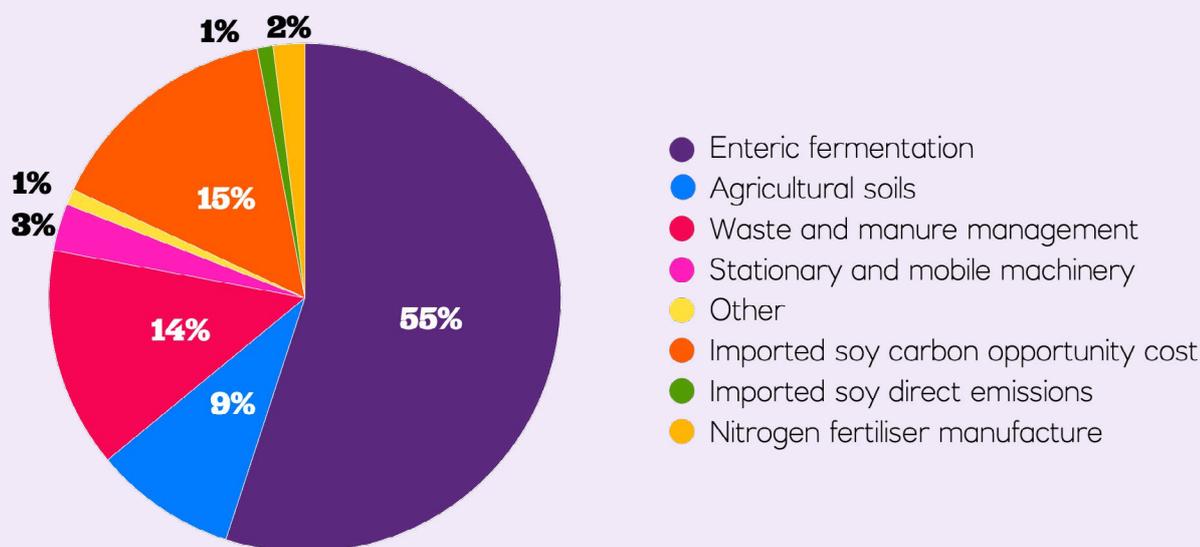
However, although these subsidies are welcome in rewarding farmers for

undertaking more sustainable practices, they do not provide the upfront capital financing needed to adopt the practices that these policies will eventually pay for. And while farmers and landowners often recognise the long-term cost benefits of taking climate action, they may not be in a position to make the sometimes significant, near-term infrastructure investments needed for sustainable transition plans.

For instance, more energy efficient mobile and stationary capital equipment, and renewable energy systems, such as solar or anaerobic biodigesters for biogas production, all come at a substantial initial outlay for farmers.

Figure 2: Sources of agricultural emissions

(including Scope 3 at GWP20 (2018)
Total = 132.3 MtCO₂e)



Source: WWF – Land of Plenty, February 2022: CCC's Sixth Carbon Budget and Report for WWF by Eunomia/Innovation for Agriculture (IFA)

Bridging the investment gap

Private finance therefore has a powerful role to play in accelerating the transition to regenerative agriculture by actively scaling the information and access to green finance specifically tailored to farmers and food producers. To do this in the right way, private finance must align on what these financial levers could be and how they will support the transition.

Possible solutions could include farmers and food supply chain businesses working together to reduce emissions and store carbon. By using accurate measurements for on-farm reduction and sequestration schemes, food businesses can verifiably reduce their own scope 3 (supply-chain) emissions through direct financial support to farmers. In this way, the emissions reduction benefit is shared between the farmer and the buyer.

This requires government, farmers and the food supply chain to agree on a common set of metrics that comprehensively measures the sustainable outcomes from the change in farming practices. In doing so, farmers can be rewarded for achieving targets by the government, their supply chain customers, and even other private sector players who would like to support nature-based solutions in the UK.

The financial sector can also be part of validating this mechanism, bringing a creditworthiness perspective to these dynamics. By recognising that emission reduction efforts by farmers will make their businesses more attractive to their retail customers as well as helping to reduce risk, banks can subsequently reflect this in the cost of lending. Banks can also partner with food retailers to provide transition finance to their farmers to reduce emissions in a way that is comprehensive and scalable.

More broadly, financing is also needed to provide innovative solutions in managing farms and the industrial food system. For instance, satellite data can support farmers in sustainably managing their farms within a broader ecological system, while also preparing for extreme weather shocks and adapting to long-term weather effects.

There is increasing interest in how digital solutions can make the entire food system more efficient through data analytics, balancing supply and demand to reduce the amount of food that is wasted. Blockchain solutions can also enable traceability and transparency on the carbon footprint and sustainable outcomes

achieved through the farming and processing of food – an issue increasingly important to food retailers and consumers.

But meeting the estimated £56 billion investment gap⁵ to fund the UK’s ambitions to recover nature over the next ten years is just one part of the challenge.

Financial firms also have a vital role to play in developing new and diverse forms of green agricultural finance expertise, guiding on requirements of decision-useful climate data and ensuring that the delivery of net-zero financing is carried out in a fair, transparent and sustainable way for farmers, landowners and agricultural communities.



Blockchain solutions can also enable traceability and transparency on the carbon footprint

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Source: WWF – Land of Plenty, February 2022 and Green Finance Institute: The-Finance-Gap-for-UK-Nature-13102021.pdf (greenfinanceinstitute.co.uk)

Providing practical solutions for farmers

As one of the largest bankers to the UK's farming sector and a dedicated partner to UK food retailers, NatWest Group is committed to supporting farmers in the transition to net-zero, regenerative food systems.

With agriculture representing 1.2% of NatWest Group's gross lending but the largest sectoral contributor to the bank's total financed emissions⁶, helping our farming customers reduce their collective carbon footprint is also a vital part of our own ambition to halve our financed emissions by 2030.

A key tenet of our proposition is to provide practical solutions for many of the challenges that food producers face. For example, NatWest Group has offered a package of relief measures for existing farming customers to help with rocketing fuel, feed and fertiliser costs. This includes capital loan repayment holidays, overdraft extensions and loans to help farmers pay for resources that have spiked in price.

Our green loans are available with no arrangement fees to provide more affordable lending for sustainably focused capital investments including renewables,

emissions reduction and methane capture and utilisation. We also offer direct support for agricultural customers via access to our national partner network of industry bodies, foundations, valuers, land agents and technical experts.

We want to help farmers to measure their sustainability impacts. This information is useful for their customers as well as providing data to improve farm operations. NatWest Group and the Sustainable Food Trust have been collaborating to support the development of the 'Global Farm Metric' (GFM), a standardised framework to help farmers measure the sustainability of farming and food production.

After a test pilot in 2021, this is now being expanded to create a digital solution that will help farmers measure, plan and track the impact of their interventions to improve the sustainability of their farms. Bringing expert insight from the financial sector, NatWest Group is helping to further develop the GFM as a single platform through which farmers in the UK and beyond can meet multiple sustainability data requests such as audits or requests from retailers, banks or governments.

6 Source: NatWest Group, Emissions (MtCO₂e/ year) by SIC07 Code for FY 201

Green Loans with no arrangement fee are open to applications from eligible UK businesses with an annual turnover of less than £25m (other than for eligible UK Real Estate Finance businesses for whom alternative eligibility criteria may apply) who are seeking to take out a loan to acquire assets that fall within the eligible list developed by the bank and subject to review and change on an ongoing basis. Security may be required. Fees (other than arrangement fees) may apply. Over 18s only. Subject to status, eligibility and approval. Business use only. Any property or asset used as security may be repossessed or forfeited if you do not keep up repayments on any debt secured on it. Failure to comply with the terms of the loan agreement could lead to an event of default under the loan and (depending on their terms) may also impact other facilities of the borrower. Terms apply.

Finally, we're aware that the UK's landmass and agricultural sector can be a valuable means of capturing carbon – and it doesn't need to be at the expense of food production. Our Carbonplace platform for trading carbon credits is a powerful enabler of the market for high-quality carbon credits. We want to make

this available for UK farmers if they wish to create an additional source of income using a platform that is easy to interact with and also fully transparent. In this way, we can help accelerate the flow of private-sector capital to complement public finance towards turning habitats from carbon sources to carbon sinks.



Conclusion

NatWest Group has been helping the UK Agriculture sector for over 200 years. Our team of expert relationship managers are dedicated to supporting the farming industry in an ever evolving and challenging sector. We believe the support that we offer towards regenerative farming is not only good for the UK's natural habitats, but good for business too.

We believe there are huge commercial opportunities in farmers transitioning to lower-carbon, nature positive methods of food production – from a reduction of input costs, to unlocking price premiums from food retailers and accessing the benefits of green finance. For the industry as a whole, we also believe there is the chance for UK companies to take a leading role in developing technologies, such as precision-application robotics and digital solutions

(such as blockchain and satellite data analysis), which will dramatically improve energy and resource efficiencies.

However, finance alone cannot solve the challenges of making the food system more sustainable. The policy landscape needs to be ambitious in its size and scope to reward a sustainable farming approach that helps achieve the UK's net zero target by 2050, and halt the decline in species abundance by 2030. This approach should be recognised across the food system - from the farmer to the food retailer.

So, while it's true that current crises have forced a necessary reckoning of the UK food system, the ambition must be to convert this crisis into an opportunity for a new and sustainable revolution of the food system in balance with the planet and the wellbeing of society.

To discuss any of the topics mentioned in this paper, or to find out more about our support for the agriculture sector, please contact Maria Carvalho, Head of Climate Economics and Data: maria.carvalho@natwest.com