Sowing seeds

How finance can support a just transition in UK agriculture

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Summary

Achieving a just transition in agriculture in a changing policy landscape

A critical success factor for achieving a net zero and 'nature-positive' agriculture sector in the UK is fairness – in other words, delivering a just transition towards environmentally sustainable economies and societies. The financial sector is increasingly recognising that social considerations must be part of its sustainability strategies and capital allocation, including to farming customers. The net zero transition is likely to change patterns of agricultural employment across the UK, with analysis by the Climate Change Committee suggesting that by 2030 there will be between 7,000 and 42,000 fewer jobs in livestock farming, but up to 39,000 more in afforestation, and thousands of additional jobs in non-livestock agriculture and peatland restoration (CCC, 2023).

Reflecting the anticipated changes in the UK workforce, a new just transition working group has been set up to inform the Transition Plan Taskforce on the social dimension of climate action. The importance of financing a just transition for the agriculture sector is reinforced by the changing policy landscape too, with new land management schemes that are set to disrupt the structures of farm businesses.

If a just agricultural transition can be achieved, farmers and landowners, workers and communities would be adequately and fairly incentivised for protecting biodiversity, reducing emissions and capturing carbon, while producing food sustainably. This scenario requires clear and consistent policy frameworks, financial support to deliver public goods, access to knowledge and data, and support in collecting the data needed to demonstrate progress towards sustainability objectives.

Critically, there is a need for dialogue and consultation, particularly at the local level: different regions and farms will face differing challenges and opportunities as they move through the sustainability transition. They will need access to a blend of public and private finance to invest in transitioning farm practices and confidence in environmental standards, data and payments.

Metrics and key performance indicators will also be essential, so that different stakeholders can better understand the social-, biodiversity- and climate-related risks and opportunities of decisions. Place-based action and the financial innovations surrounding that will be important in encouraging real-world sustainable agricultural innovations that are truly bankable and fair for workers, including smallholder and tenant farmers.

Barriers to mobilising finance

We have identified six barriers that need to be addressed to mobilise the finance needed for a just transition in UK agriculture:

- A lack of agricultural sector awareness and capacity for change
- Difficulties for farms in accessing finance
- Ongoing debate about who pays for environmental and social improvement
- Responding to the diversity of different rural locations
- The need for more and better social and environmental baselining and standards
- Challenges associated with handing farms onto younger generations and providing opportunities for new entrants to the sector.

The first three of these barriers are particularly acute for smaller businesses.

Recommendations for the finance sector

Based on these barriers, we propose the following recommendations for action for private finance, particularly for lenders to the agricultural sector:

1. **Put the just transition at the heart of agricultural, climate and nature policy engagement.** Build awareness and capacity among finance, policy and agricultural stakeholders on how the social consequences of trade-offs can be managed during the food system transformation that lies ahead.

2. **Integrate just transition principles into banking relationships, products and assessments for food and agricultural sector customers.** Incorporating social risks and opportunities alongside climate and nature/biodiversity considerations will mean more effective long-term decisions are possible.

3. **Promote wider financial innovation to deliver a just agricultural transition.** Sustainability-linked funds, environmental markets and blended finance can be developed to include key performance indicators linked to social outcomes.

4. **Scale up inclusive place-based solutions.** A successful just transition for the agricultural sector will involve communities designing and driving strategies that best suit their social, economic and environmental context, while contributing to national objectives.

5. **Develop and embed shared social and environmental indicators** that are relevant and useful for progress towards a just transition for farmers, rural workers, suppliers, communities and consumers.

6. **Take an intergenerational approach.** Backed with supportive policy and a clear sector-level vision, finance providers can better tailor funding opportunities and guidance for new entrants, tenant farmers and succession planning.

The obligations on the financial sector from, for example, the Task Force on Climate-related Financial Disclosures (TCFD) and emerging recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) are gathering momentum. The financial sector will play an important role in the just transition as a provider of capital to the entire food and agricultural system. In addition to its direct business with farmers, it can use its relationships with others in the value chain to drive a systemic response to social impact and sustainability. Doing this is particularly important to support resilient domestic food production, climate change mitigation and resilience, and to avoid potentially serious implications for social, labour and environmental standards along international supply chains. Such responses require collaboration with policymakers and institutional investors and could enable a more international approach to the challenge of a just transition in the sector.

The role of agriculture in the 21st century needs to be reimagined in light of the challenges presented by the urgent need to mitigate and adapt to climate change and prevent the biodiversity crisis from worsening. The transition must centre on the livelihoods of workers, farmers, communities and consumers. Financing strategies must not perpetuate historic market failures, such as the undervaluing of nature and biodiversity or the prioritising of output over environmental integrity. Likewise, care should be taken not to introduce new issues by the financialisation of some ecosystem services at the expense of others, or by imposing social costs on communities.

> "
> **The transition in agriculture must centre on the livelihoods of workers, farmers, communities and consumers.**

Introduction

This report was informed by input from farmers, sustainability specialists and financiers in the UK. It is designed to increase understanding across the financial sector of how it can support a just transition in UK agriculture by mobilising more finance towards companies committed to and making progress to support a 'just nature transition'. We defined this transition in a previous report as one that delivers decent work, social inclusion and the eradication of poverty in the shift to a net zero and climate-resilient economy that simultaneously delivers biodiversity goals in agriculture, forestry, land-use and the oceans (Muller and Robins, 2022); see further Section 2 below.

The research in this report examines social risks and opportunities for stakeholders affected by environmental transitions in UK agriculture: workers, smallholder and tenant farmers, communities and consumers. The report sets out why the financial sector should integrate just transition principles into lending and investment decisions and the barriers that exist to a just transition in UK agriculture. It then suggests how to overcome these obstacles with a set of recommendations for action by the financial sector in collaboration with others. Our findings seek to accelerate action in the private finance sector, particularly by those lending to the agricultural and food sector, but also among public finance institutions and policymakers.

The research was conducted as part of the UK-focused Financing a Just Transition Alliance (FJTA), which is convened by the Grantham Research Institute and brings together over 50 financial institutions, trade unions, regional bodies, civil society and academia. The Alliance is the leading initiative in the UK focused on identifying practical ways for mobilising investment in net zero and nature stewardship in ways that are people-centred. In the conclusion we propose further work for the Institute and members of the FJTA in terms of investigating just transition finance in the context of food supply chains and data acquisition, standardisation and management, technology and environmental markets.

Photo: ElasticComputeFarm, Pixabay

Methodology

Research was conducted in the first half of 2023, building on our recent research, especially the following reports:

- *Just Nature: How finance can support a just transition at the interface of action on climate and biodiversity* (Muller and Robins, 2022); and
- *Making Transition Plans Just: How to embed the just transition into financial sector net zero plans* (Curran et al., 2022).

The scope included social risks and opportunities for stakeholders affected by environmental transitions in UK agriculture, specifically: rural workers, smallholder and tenant farmers, communities and consumers.

We conducted a literature review, which highlighted the lack of applied research into just transition financing for the UK's agricultural sector. Because the review revealed that attention is being given to transformations in agricultural policy and public finance, it led the researchers to focus instead on the role of private finance in supporting a just transition in UK agriculture at the interface of action on climate and biodiversity.

Consultations were held with selected members of the FJTA and further expert opinions were sought from farmers, trade unions, agricultural financiers and sustainability specialists. As part of the research, the Grantham Research Institute team attended events hosted by the Food, Farming and Countryside Commission (FFCC), Bankers for Net Zero, the Green Finance Institute (GFI) and the Scottish Universities Insights Institute, on leadership in farming and finance, accelerating the transition to net zero agriculture, financing a farming transition, and community carbon offsetting, respectively.

A workshop with representation from affected stakeholder groups – rural workers, smallholder and tenant farmers, communities and consumers – was hosted at LSE in April 2023, attended by 50 participants. The workshop consisted of presentations from guest speakers, small group roundtables and plenary discussions. Themes included expectations of just transition finance in UK agriculture from the perspectives of borrowers and lenders, and the obstacles and opportunities for channelling finance to those making progress on supporting workers, farmers and communities.

> "The report is designed to increase understanding across the financial sector of how it can support a just transition in UK agriculture.

2. The context for a just transition in UK agriculture

The UK's agricultural sector is under growing pressure to play its part in responding to the crises of climate change and biodiversity loss, while continuing to fulfil its primary role of food production (Defra and Rural Payments Agency, 2022). While the transition to sustainability presents many opportunities, securing the right balance between food security, jobs and sustainability also involves trade-offs (Vågsholm et al., 2020). The social consequences of these trade-offs will need to be carefully managed as the food system is transformed in the future in response to sustainability and food security imperatives.

While agriculture in the UK is acknowledged as having some of the world's more sustainable and high-welfare farming standards (Economist Impact, 2021), at 11% of UK territorial emissions, its greenhouse gas emissions are proving difficult to abate (Defra, 2023a). Although the sector's emissions fell by 12% between 1990 and 2021, emission reductions have slowed to 3% since 2008, while from 2008–21 the UK's total greenhouse gas emissions fell by more than a third (Defra, 2023a). Agriculture will need to play a larger role in carbon sequestration and, as stewards of the land, farmers are vital actors in delivering society's biodiversity goals, too. In response to these evolving requirements of our farmland and farmers, the Environmental Land Management (ELM) schemes introduced in England from 2023 replace EU payments, tying public money to delivery of environmental services such as hedgerow management, nutrient management and improving grasslands.

The investment needed to deliver the UK's environmental goals will be large. In 2020, the Advisory Group on Finance for the UK's Climate Change Committee (CCC) estimated that the country would need an additional £50 billion of net zero investment annually across all sectors by 2030 (Robins, 2020), with £1.5 billion in annual investment in agriculture needed by 2035 (CCC, 2020). To also address sustainable soil management and protect biodiversity requires a further £23 billion by 2030 (GFI et al., 2021). These investments would deliver a range of economic, environmental and social benefits to farmers and society alike. As well as helping the UK meet its climate and biodiversity goals, sustainable farming tends to have lower energy and input costs, can tap into markets offering premium prices, is less polluting to land, air and water, and can catalyse new skills and jobs (Elliot et al., 2023). A just nature transition (defined in Box 2.1) has benefits for farmers, workers and communities through increasing the resilience of landscapes to extreme weather (for example, by enhancing the water retention capacity of soil), providing agricultural businesses with greater income stability, and contributing to long-term food security (Defra, 2021).

The agricultural sector is, however, subject to a set of systemic economic constraints that limit the resources available to support a just transition. Farmers find themselves squeezed by rising input costs in volatile commodity markets and powerful buyers among food processors and supermarkets (Jack and Hammans, 2022). Issues of market power are not far from the surface. Consequently, farmers can face severe pressure on prices and margins. Profound questions exist over where the money will come from to underwrite the costs of transitioning farms, from 'extractive' business models to those that are regenerative, climate-resilient and nature-enhancing (Strauss, 2023).

Although both food security and the concept of the 'just transition' are mentioned on page 1 of the Paris Agreement (UN, 2015), the social implications of addressing the crises in climate and biodiversity have rarely been taken into account to date by agricultural policy, business or financial sector responses. A just transition is not a 'nice to have' but rather a critical enabling factor for the shift to a net zero and nature-positive economy. First, it is the right thing to do in terms of fairness and respecting people's rights (ILO, n.d.). Second, a failure to address potential social implications will likely trigger a backlash that could slow down or derail the transition (Bounds et al., 2023). And third, it is a smart way to build a strong and resilient economy that creates the skills, capabilities and social institutions we need (CCC, 2023; CISL, 2020).

Outlining a just nature agenda for UK agriculture

According to our workshop participants, a successful transition rests on principles including retaining individual dignity, community wellbeing and democratic participation.

International principles exist for the just transition (ILO, 2021) and the UK government made it a key feature of the COP26 climate summit in Glasgow in 2021 (COP26, 2021). We describe further just nature transition principles in Box 2.1.

Across the UK agricultural sector, a transition towards a system that sees us producing food, protecting biodiversity, reducing emissions and capturing carbon will need to involve the following principles and visions:

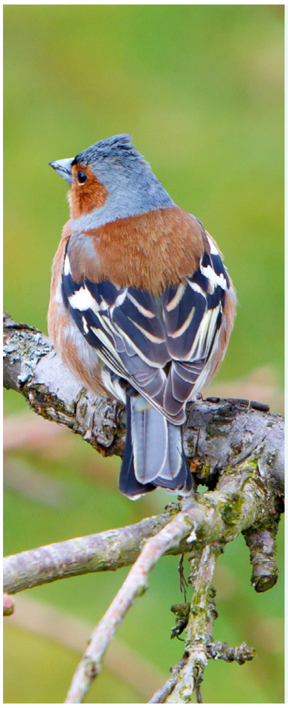
- Healthy and affordable food is available for all
- The natural environment is valued and respected by all
- Sustainable land management is practised, adapted to the specific biophysical and socioeconomic conditions of a place
- Affected stakeholders are involved in the transition process through social dialogue
- Landowners and land managers (including farmers and farm workers) are adequately and fairly rewarded
- Injustices of the past are not replicated, and power in supply chains is rebalanced.

(FAO; Defra, 2022b; Muller and Robins, 2022)

Impacted groups

Any transition creates winners and losers: the purpose of a just transition is to minimise the costs and maximise the social and economic benefits of climate action (ILO, n.d.). Stakeholder groups most affected by the transition to sustainability in the agricultural sector – in terms of both risks and opportunities – include rural workers, tenant farmers, owner-occupiers and landlords, and also the communities, suppliers and consumers who rely on resilient food and fibre supply chains.

The transition is likely to change patterns of employment in the sector. Analysis by the CCC suggests by 2030 there could be between 7,000 and 42,000 fewer jobs in livestock farming, but up to 39,000 more in afforestation, and thousands of additional jobs in non-livestock agriculture and peatland restoration (CCC, 2023). Such shifts in employment patterns will have social and cultural implications for affected communities, in addition to economic ones.



Box 2.1. **Defining the just nature transition**

We define the 'just nature transition' as one delivering decent work, social inclusion and the eradication of poverty in the shift to a net zero and climate-resilient economy that simultaneously delivers biodiversity goals.

This means realising a shared set of just transition principles: first, to integrate human rights and labour standards across climate and biodiversity action; second, to anticipate, analyse and address the social risks and opportunities of the nature transition for workers, suppliers, communities and consumers; and third, to ensure meaningful social dialogue exists for workers along with wider engagement with other affected stakeholders, which will often involve empowering groups excluded from decision-making, whether by income, gender or race.

The nature transition centres on achieving net zero and climate resilience in agriculture, forestry and land use, as well as strengthening the conservation of land- and ocean-based biodiversity.

Extract from Just Nature *(Muller and Robins, 2022)*

Indicative just transition issues in UK agriculture

Table 2.1 below outlines potential impacts from the transition to sustainability in the UK's agriculture sector on a range of stakeholders. Financial institutions can familiarise themselves with these risks and opportunities to ensure meaningful dialogue with food and agricultural clients, in support of a just transition. The table was informed by workshop participants and consultations as well as our desk-based research.

For the finance sector, the just transition involves three steps:

1. Anticipating, assessing and addressing the social risks of the transition
2. Identifying and enabling social opportunities
3. Ensuring meaningful dialogue and participation in transition planning.

(Curran et al., 2022)

"Financial institutions can familiarise themselves with the risks and opportunities to ensure meaningful dialogue with food and agricultural clients, in support of a just transition.

Photo: Richard Bell, Unsplash

Table 2.1. **A people-based approach to a sustainable transition in UK agriculture: positive and negative impacts on stakeholders**

Affected stakeholders	**Social risks** *Anticipate, assess and address*	**Social opportunities** *Identify and enable*
Rural workers Regular, seasonal and migrant workers	• Regular and seasonal workers lose jobs. Labour standards unmet. • Skills shortage exacerbated and workers exploited. • Highly exploitative jobs present a risk of modern slavery for migrants and vulnerable local workers. • Technology displaces jobs, without alternatives (NatWest, 2023c). • Workers not brought into dialogue. • Solutions not co-created, nor trust and confidence built (Stronger Together, 2023).	• Additional jobs created. • Skill development to meet shift in employment opportunities. • Deliver good jobs and decent work in the transition and respect for worker and human rights (Robins et al., 2021). • Improvements in health, safety and social protection, e.g. pensions and benefits (Curran et al., 2022). • Reparations paid for past grievances, e.g. recruitment fees paid by workers (Wilkins, 2021).
Tenant farmers	• Tenancy contracts are lost as landowners update land-use strategies (Tenancy Working Group, 2022). • Struggle to respond to new environmental incentives. • Financing unavailable to invest in updating practices. Grants typically paid in arrears. • Not engaged in stakeholder dialogue (ibid.).	• Derive revenue from new sources, both public and private. • Receive a sufficient premium for nature-friendly farming produce (Scottish Government, 2022). • Partnership with landlords improves as collaboration for environmental land management evolves (Tenancy Working Group, 2022; FFCC, 2023). • Strengthen local food supply (Curran et al., 2022).
Smallholder or family farms	• Struggle to respond to new environmental incentives. • Financing for updating practices is unavailable. • Finance customer relationship models, knowledge sharing, pilots and further support are not extended to smaller entities.	• Farm income becomes more sustainable (Harkness et al., 2021). • Clusters created that facilitate collaboration and access to benefits (GFI, 2023). • Technology improves efficiency and resolves skills shortages (NatWest, 2023c). • Diversification of business into retail and agro-tourism and forestry (Scottish Government, 2022). • Bring unused or unproductive land back into use for environmental schemes. • Environmental data aids business decisions.
Communities	• Skills shortages and job losses in extended value chain, including suppliers to farms (e.g. machine dealers, vets, feedstock providers, fencing suppliers etc.). • Communities not involved and do not benefit from new carbon and nature markets. • Spillover effects for communities not addressed and rural poverty worsens (Shucksmith et al., 2023).	• Community rights respected and their involvement ensured (Elliot et al., 2023). • New models for community benefit installed at scale. • Reductions in local agri-pollution support an increased enjoyment of nature. • Increased knowledge about how nature assets in local area can be protected.
Consumers	• Cost of healthy eating increases. • Alienation from food source. • Increase in obesity, diabetes and other public health issues owing to the lower quality of mass-produced food.	• Healthy food becomes more accessible. • Citizens are included in problem-solving processes (e.g. People's Plan for Nature, 2023). • Able to change consumption patterns to support nature-friendly businesses, even if costs to consumers are higher (ibid.).

Source: Authors

3. Connecting the financial sector to a just transition in UK agriculture

The financial sector has a vital part to play in enabling the just transition in agriculture (see Muller and Robins, 2022). Banks, asset managers and insurance companies increasingly recognise the importance of a just transition, but most work to date has focused on climate and energy and has not included land use or agriculture.

In our *Just Nature* report of 2022 we set out five recommendations for financial institutions to follow to support a just nature transition. These can be tailored to apply to the UK agriculture context, as follows.

Financial institutions should:

1. Include just transition principles in their own plans for net zero, nature and biodiversity.
2. Set just transition expectations of the businesses they lend to and invest in, including food producers, processors and retailers.
3. Purposefully channel finance to companies committed to and making progress in supporting a just nature transition for agricultural workers, suppliers, communities and consumers.
4. Engage with policymakers to advocate for agricultural policies that support a just transition.
5. Ensure that social and just transition factors are effectively included in implementation of reporting and disclosure guidance, such as the UK's Transition Plan Taskforce (TPT).

Financial institutions in the UK have started reallocating capital to support the agricultural transition to net zero (Furness, 2022). This is in response to intensifying risks from climate change, the identification of investment opportunities, and growing market and regulatory expectations, notably through the Task Force on Climate-related Financial Disclosures (TCFD) and the more recently established Taskforce on Nature-related Financial Disclosures (TNFD). Furthermore, the Government's 2023 Green Finance Strategy underlines the goal of directing £1 billion per year by 2030 of private finance to support 'nature recovery' in England (HM Government, 2023a).

While social issues around food production and land management have been present in the agriculture sector for centuries, most of the focus in recent years from a financial perspective has been on green or environmental goals (see the Environmental Land Management [ELM] scheme, Climate Bonds Initiative's Agriculture Criteria and banks' net zero agriculture commitments). However, more integrated approaches to sustainability are evolving within the financial architecture. In the UK, a significant step forward was the establishment in 2023 of a just transition working group within the Government's Transition Plan Taskforce. This working group will recommend ways in which businesses and financial institutions can best include just transition principles in their net zero plans: the requirement to publish transition plans will apply to major listed food and drinks companies and food retailers along with the UK's leading banks and investors.

Financing for the UK agricultural transition is affected by several factors:

- The agricultural sector has long been subsidised by government: in 2022, 8% of farm income came from subsidies; some farms made a profit only due to subsidies (Defra, 2023b). There is a need for just transition principles (see previous section) to be applied to post-Brexit support regimes across the UK, including the ELM schemes in England, the Sustainable Farming Scheme in Wales, the Agricultural Reform Programme in Scotland and the Future Agricultural Policy for Northern Ireland.
- The agricultural sector is typically financed by banks rather than by institutional investors or capital markets. Data from the Department for Environment, Food and Rural Affairs (Defra) shows that lending from banks represents 70% of the £21 billion of total agricultural liabilities, though only 5% of the sector's net worth (Defra, 2023b). The sector also represents a large proportion of banks' greenhouse gas emissions relative to its asset share: for example, agriculture is

only 1.1% of NatWest's total portfolio, yet is one of the largest contributing sectors to the bank's financed emissions (NatWest, 2023a).

- Market prices, contracts and retail competition influence the supply chain dynamics and the identified groups of impacted stakeholders.
- Carbon and nature markets[1] are starting to change the supply and demand for land, and thereby land and rental prices (McMorran et al., 2022). The distributional implications of these changes, in terms of the allocation of costs and benefits, are not yet properly understood, but it is apparent that risks are already emerging for tenant farmers and communities (Tenancy Working Group, 2022).

The barriers to supporting a just transition in UK agriculture are explored further in the next section, followed in Section 5 by levers that private finance could use.


Photo: Iliya Vjestica, Unsplash

[1] The Government defines 'nature market' as "A mechanism for private investment in nature through the sale of units of ecosystem services, which are delivered by nature restoration projects or improvements to land or coastal management" (HM Government, 2023b).

4. Barriers to financing a just transition in UK agriculture

The finance sector is well-positioned to be a critical actor in enabling a just agricultural transition. To fulfil this role, it will need to help overcome certain barriers that occur at the intersection of agriculture and food, policy and finance. Six of the most important barriers that arose from the research are explained here, covering awareness and capacity, access to finance, payment models, place-based variations, data and metrics, and generational dynamics.

Agricultural sector awareness and capacity

Fundamental to a just agricultural transition is access to information and support. Affected agricultural stakeholders (as covered in Table 2.1 above) vary in terms of their awareness of the need to transition, and of the policies, incentives, information and finance available to help them do so (Tenancy Working Group, 2022).

Ninety per cent of farms in the UK are sole traders or family partnerships (Countryside Online, 2019) and the average farm size is 81 hectares (220 acres), with nearly half of all farms being less than 20 hectares in size (Defra, 2022a). Our workshop heard that smaller farms can be less able or willing to engage in government schemes and feel less supported in doing so than larger farms. Some participants shared experiences of requiring more staff to engage effectively with nature-based solutions. If financial support designed to address food system challenges is not aligned with the intended participants' needs and capacity, progress towards an agricultural system that "delivers safe, healthy, affordable food; regardless of where [people] live or how much they earn" and "restores and enhances the natural environment for the next generation in this country" (Defra, 2022b) will not be achieved.

In addition, relationship banking models typically only apply to larger customers as, to make business sense, the costs of servicing clients must be exceeded by anticipated revenue for the bank. Compared with other sectors and countries, the financing market for small and medium-sized enterprises (SMEs) in the agricultural sector is highly concentrated, with few smaller relationship-based and locally-focused lending institutions. Customers without a relationship manager (e.g. smaller farms and tenant farms) might therefore experience social risks, as they do not have access to the same level of knowledge sharing, business understanding or network effects from their bank (Responsible Finance, 2023b). While a growing proportion of relationship and product bankers have capability and capacity to guide customers on sustainability, some research participants reported a need for more bespoke support from banks for SMEs.

Access to finance

Not all farms are well connected to the financial sector; many are SMEs, which are shown to use low levels of external finance, if any at all (BVA BDRC, 2023). Furthermore, smaller farms have weaker relationships with their bankers than larger farms and are often only able to access banking services through digital offerings. While some of these discrepancies are a market characteristic rather than a finance sector failure, in pursuing a just transition it is worth addressing the social risks that can stem from current ways that banks manage their relationships, products and assessments for food and agricultural sector customers.

Banks stipulate that farm debt be securitised against fixed assets and contracts, to reduce credit risk and their loss in case of default. This can make it hard for tenant farmers and small farm businesses to access the debt they need to fund investments in sustainability. Furthermore, providing collateral for the majority of the loan amount means that farmers tend to retain operational and financial risk, with rewards captured elsewhere in the value chain. While some farmers see accessing debt as an attractive means to grow their business (Furness, 2022), our workshop heard that others are reluctant to take on additional debt in the current market. Furthermore, farmers can be reluctant to accept extra covenants on loans, such as requirements for social or environmental activities, that further restrict the choices they can make in their business.

Environmental markets – such as voluntary carbon markets, the Biodiversity Net Gain (BNG) scheme and water quality markets – offer the potential to generate revenues against which finance can be secured. Some farmers are doing so. However, these schemes can be complex and opaque, and revenues from ecosystem services remain uncertain (GFI, 2023). Areas of uncertainty include how payments for different environmental services can be combined and optimised across a landscape, contracting terms, and the longer-term implications of signing up to such markets (Lyon and Burnett, 2023). Brokers (e.g. planning consultants and land agents) can reap many of the benefits – with workshop participants noting that some command 40–50% of BNG revenues – while the long-term commitments to, for example, setting land aside could restrict options for farmers in the future. The wider impacts for rural communities of locking up natural assets over long periods of time still need to be fully evaluated, especially given that many are unaware of the liabilities of participation in voluntary agri-environmental carbon sequestration schemes.

Paying for environmental and social improvement

Some farmers and financiers are reluctant to invest in more sustainable practices, such as regenerative approaches, public-funded stewardship and private markets for natural capital, due to uncertain returns (Pickford, 2022; Tasker, 2022). Farmers at the workshop estimated that farms require, on average, around one-third more revenue to feel comfortable with the changes and investment in time required to transition to sustainable practices. This is in spite of anticipated cost reductions and margin improvements associated with lower-input sustainable practices that can support the stability of farm incomes (Harkness et al., 2021).

Existing business models – where 'price is king' and some farmers are facing potential declines in government support payments – are often not compatible with a just nature transition. Such a transition involves taking account of environmental and social costs – of carbon emissions, pollution to air, ground and water, and negative social impacts – that have not been borne by the food and agricultural system, nor the financial system, in the past. It is unclear who will now bear those costs. Retailers and consumers are extremely price sensitive, and government support payments are unlikely to make up the shortfall. Power imbalances in the supply chain, with farmers being price takers with ever smaller margins, limit the choices farmers have, as does their unwillingness to invest in areas that have uncertain returns (Jack and Hammans, 2022).

Although not all landowners and tenant farmers want to take on environmental stewardship, most recognise the benefits of improving the sustainability of their businesses; sustainable long-term returns depend on looking after the environmental integrity of the land. However, it remains unclear whether and how tenants can capture the longer-term value of improvements to ecosystems on the land they farm.

Efforts to reduce the UK's carbon emissions and protect its biodiversity are already changing demand for and therefore supply of agricultural land, with impacts on land prices and rents. Schemes such as Wales's Woodland Creation Planning Scheme are resulting in land price increases, affecting local employment and tenant farmers (Mersinoglu, 2022). The value of poor-quality livestock land in Scotland has risen by 60%, and plantable land by 54%, in part because of market interest in afforestation and other forms of carbon capture (McMorran et al., 2022). In response, some landowners are increasing rents or reducing the length of tenancy agreements to retain the option to capture the value of carbon storage, BNG schemes and other environmental markets as they evolve. This presents a real risk for the viability of tenant farmers across the UK. Participants in our research urged collaboration between landlords and tenants to ensure they share in the opportunities, and wanted urgent support from policymakers in the shape of tax reforms (see Rock Review, 2022, for more).

Place-based diversity

Sustainability transitions in agriculture are highly location-specific, accounting for local ecological conditions, patterns of farming practice and the needs of local people. Taking a place-based approach is particularly important for agricultural finance, as this policy domain is devolved to the national governments of England, Wales, Scotland and Northern Ireland, and differing approaches to the transition are emerging (AHDB, 2022). Evidence is available from nascent best practice to indicate that aligning finance to local transition plans can provide investment efficiency and greater social co-benefits (UKRI, 2022).

To have meaningful impact, 'place-based investment' requires policy guidance and funding for communities and local governments to build and market portfolios. Smaller scale, geographically specialised financial organisations will be key to ensuring relevance for the people, businesses and natural environments involved. Climate Finance Hubs have been advocated by the Place-based Climate Action Network (PCAN)[2] to coordinate between actors within a 'place' (Brogan et al., 2022), but private finance in the UK has yet to develop financing structures in response.

Social and environmental baselining and standards

Understanding the starting point and progress made towards social and environmental goals requires farm-level data. This is particularly important if financial rewards are tethered to such progress. While farms themselves, government and banks have some farm-level information, the sustainability transition requires new datapoints and the smarter use of databases and technology (GFI, 2023). If data gathering is too burdensome for farm businesses, they might not be able to participate in emerging markets or to access advice, finance or certain opportunities (FarmingUK, 2022). Compared with the rapid development of environmental metrics (e.g. for soil carbon and water quality), social indicators are less well developed, holding back the just transition (Curran et al., 2022).

Cost is a hurdle here, too. There is ongoing debate about who should pay for data collection: farmers, government, environmental market buyers or banks (Scown, 2023). Many businesses, including farms, are struggling with the lack of consistency in demands for environmental data – government, buyers, financiers and customers may each request different environmental and social information (Furness, 2022).

Generational and new entrant challenges

The average age of Britain's farm owners is 59, with over one-third older than 65 and only 3% being younger than 35 (Defra, 2022a). The workshop heard anecdotal reports of older farmers looking to sell their farm businesses rather than engage with a transition to sustainability. In England, the Government launched the Lump Sum Exit Scheme in acknowledgment of this trend, and to financially support those who would like to retire from farming, though applications for this closed in September 2022 (NFU, 2023). The success of this scheme in overcoming generational challenges and opening opportunities for new entrants to the farming profession is still contested, with England's New Entrant Support Scheme awaiting development, after a pilot phase (Tomlinson, 2022).

In many industries, innovation is driven by new entrants. In farming, most of these new entrants come through the tenanted sector. However, the workshop heard that there are concerns that landowners are being incentivised to take land out of cultivation either to store carbon by planting woodland, or to create biodiversity set-asides. This will reduce opportunities for new entrants who are likely to be more willing than incumbents to embrace new models of farming.

[2] LSE through the Grantham Research Institute is one of PCAN's host institutions.

5. How to bring down the barriers: recommendations for action

Fundamentally, the success of the transition to a sustainable agricultural sector requires trust in government from the sector, and public support from consumers. Therefore, meaningful social dialogue and co-production of transition plans sit at the core of the recommendations below, to ensure that the voices of people often excluded from decision-making are heard. The place-based nature of agriculture means that this needs to happen at all levels, from the farm to regional, national and supra-UK arenas. Banks and other financial institutions can support these actions as a way of enhancing the resilience of their assets.

The recommendations below address the barriers discussed in the previous section to guide the financial sector, in collaboration with others, to support a just transition to a net zero and nature-positive agricultural sector in the UK. They are informed by the opinions and evidence presented in our workshop, as well as our further research.

1. Put the just transition at the heart of agricultural, climate and nature policy engagement. Build awareness and capacity among finance, policy and agricultural stakeholders on how the social consequences of trade-offs can be managed during the food system transformation that lies ahead.

The involvement of policymakers is vital. Central, devolved and local governments in the UK need to place a properly financed just transition plan at the heart of agricultural, climate and nature policy and regulation, increasing clarity and connectedness between policies. The global nature of the challenges facing the food system mean that a systemic response is needed to harness opportunities and mitigate risks for a just transition. Financial institutions can engage with policymakers and support ambitious action. Institutional investors can signal the importance of the just agricultural transition in their stewardship activities with banks, food and drink companies, retailers and policymakers.[3]

Cooperation and standardisation will be key to optimising data collection and analysis of social impact metrics. Banks can improve connectivity across different pillars of finance, sustainability and the food system by participating in pilots and sharing findings with groups setting standards and agendas, such as the Taskforce on Nature-related Financial Disclosures, Transition Plan Taskforce, World Wide Fund for Nature and the Climate Change Committee. Partnerships between public and private finance can help, by sharing expertise, alignment on standards and metrics, and providing guarantees and combinations of loans with grants. Doing this in a just manner would enable a transition that avoids creating stranded assets, stranded farmers and stranded rural communities.

Education and collaboration among landowners, land managers, buyers, suppliers and their financiers and governments will be critical for a just transition. Community and farm networks continue a long tradition of farmers sharing knowledge and working cooperatively. Examples are emerging in environmental markets of farmers forming 'clusters' to structure collective landscape management and increase their market power, e.g. the Nature Friendly Farming Network (NFFN).

This first recommendation echoes those made in the Tenancy Working Group's *Rock Review*, the Food, Farming and Countryside Commission's *Finding the Finance for Growth* and the Greem Finance Institution's *Financing a Farming Transition*. The GFI identified a need to develop aggregation models to enable farms of all sizes to access opportunities around the sustainability transition, and a 'Community of Practice' to encourage peer-to-peer learning (GFI, 2023).

Private financial institutions can further contribute to increased awareness of the just transition by engaging proactively with their agricultural portfolios, particularly those most vulnerable to the environmental transition. Lloyds Banking Group's Sustainable Agriculture proposition, for example, brings together

[3] See Robins et al. (2021) and Curran et al. (2022) for more on what institutional investors can do.

guidance, case studies and a partnership with the Soil Association Exchange. These aim to help farming customers to transition to net zero and enable the bank to gather the emissions data required for its regulatory reporting and target setting. To put the just transition at the heart of agricultural, climate and nature engagement, this kind of offering would incorporate social considerations in its marketing, advice and financing options.

2. Integrate just transition principles into banking relationships, products and assessments for food and agricultural sector customers. Incorporating social risks and opportunities alongside climate and nature/biodiversity considerations will mean more effective long-term decisions are possible.

In terms of lending, banks need to identify how they will support clients in the food and agricultural sector through a just nature transition (Robins et al., 2021; Curran et al., 2022). Some banks offer products that combine advice on net zero with financing. However, we are yet to see many bank products that could be categorised as nature-related finance nor just transition financing.

Beyond green loans that farmers can apply for, **examples of banks' agricultural sector products and services include:**

- Discounted finance offered by **Lloyds Bank** for initiatives that make farms more sustainable, with a one percentage point discount available on loans of up to £50,000 (Lloyds Banking Group, 2022). Discounted lending for green purposes is also offered through its Clean Growth Finance Initiative (CGFI), fee-free lending for loans for sustainable projects over £25,000 and up to 25bps discount on asset finance for green investment and capital expenditure.
- **HSBC UK**'s annual SME fund which, of a total £15 billion, has allocated £1.2 billion to agriculture and has dedicated a further £0.5 billion to supporting UK SMEs in their net zero transitions (HSBC UK, 2023).
- A £250 million fund launched by **Barclays** to help farmers embed sustainability through agri-tech (Barclays, 2020). The bank also has a partnership with the University of Oxford, developing methodologies and pathways to reduce greenhouse gas emissions in its agricultural lending portfolio (Barclays, 2022).
- £1.25 billion ringfenced by **NatWest** of its £6.7 billion total lending capacity for the agricultural sector to help farmers cope with inflation and to fund climate and sustainability investments (NatWest, 2023b). The bank is also exploring social, environmental and economic baselining frameworks for farmers, using the Global Farm Metric framework.
- Private equity funding from **Triodos**, alongside a relationship partner model that helps farms through a transition to organic farming, renewables or diversification.

Landowners are often considered attractive borrowers by banks, as loans are typically collateralised by assets, reducing loss in the case of default. Some internal credit rating processes within banks, however, could be more sophisticated in calculating the credit risk of smaller agricultural clients (Scown, 2023). For material strides to be made towards considering social risks and opportunities at the interface of climate and nature, banks should incorporate a more complete set of datapoints into their risk assessments. This is in line with securing long-term relationships, reducing nature-related financial risks and, ultimately, sustaining profitability (CISL and Robeco, 2022).

Banks could consider including accessible and affordable lending for upfront capital costs or for working capital that is linked to deliver on social key performance indicators (KPIs), or linking the financing of companies that interact with farmers (such as supermarkets, commodity traders and food and drink companies) to improved social performance. Food manufacturers, traders and retailers must also integrate just transition principles into their decisions. The launch of a collaboration between some UK supermarkets and Stronger Together, an ethical recruitment group, to improve worker rights auditing is an example of how this can start to happen (Telling and Alim, 2023). The economy-wide challenge will be to identify social KPIs that reflect and drive just transition outcomes that are sufficiently ambitious, while also being manageable from a data collection perspective (see also Recommendation 5 below).

3. Promote wider financial innovation to deliver a just agricultural transition. Sustainability-linked funds, environmental markets and blended finance can be developed to include key performance indicators linked to social outcomes.

The UK's financial sector has ample room for product innovation, to improve the accessibility of lending and to catalyse social progress through sustainable financing. KPIs that incentivise social outcomes are common in other sectors such as housing: for example, with sustainability-linked bonds (e.g. the housing association L&Q's £300 million issue linked to social and environmental outcomes) and sustainability-linked loans (e.g. Peabody's loan agreements incentivise the building of affordable homes and childcare facilities and increase the ethnic diversity of leadership teams). These models can be extended to support the agricultural sector's transition by linking social and environmental KPIs to financial incentives.

The growing number of environmental market initiatives in the UK should embed mechanisms to assess social risks and share benefits of participation with affected stakeholders (HM Government, 2023b; Lyon and Burnett, 2023; Reed et al., 2023) (see also Recommendation 5). Developing mechanisms to crowd-in institutional investors to the just agricultural transition is also important for broadening the available pool of capital. Examples of public–private partnerships include: Defra's appointment of Federated Hermes, a US investment manager, to manage the UK government's proposed public–private investment vehicle, Big Nature Investment Fund (Rossingh, 2022); and NatureScot's partnership with the private UK bank Hampden & Co and Lombard Odier Investment Managers to pilot nature restoration projects, with a fundraising target of £2 billion in natural capital investment (NatureScot, 2023).

To harness public and private funds for the just agricultural transition, development finance institutions can join forces with private lenders to lower finance costs for agricultural borrowers and crowd in more commercial bank lending (HM Government, 2023a). Development finance institutions could participate in risk sharing and research and development. Given the high proportion of SMEs within the agricultural sector in the UK, the British Business Bank and community development financial institutions (CDFIs) – for example, those in the Responsible Finance network – could play a vital enabling role. The British Business Bank has a strong track record of providing support to SMEs via private sector banks through lending and guarantee schemes. Such financing would also sit firmly within the mandate of regional finance institutions, such as the Development Bank of Wales and the Scottish National Investment Bank.

4. Scale up inclusive place-based solutions. A successful just transition for the agricultural sector will involve communities designing and driving strategies that best suit their social, economic and environmental context, while contributing to national objectives.

Rather than banks or policymakers imposing generic transition frameworks, local communities, councils and county authorities need to identify the positive social impact that is most relevant to them. They should play a leading role in working together to develop place-based solutions, with support from finance providers and national government where appropriate (Impact Investing Institute, 2022). This approach would be akin to city-level sustainable finance strategies (such as in the Bristol City Leap and Greater Manchester's IGNITION projects).

Relevant rural examples include:

- **Landscape Enterprise Networks** (LENs), which take a regional partnership approach to buying and selling credits from nature-based solutions. They connect different parts of the value chain and have active trading communities in Cumbria, East of England and Yorkshire, plus several countries in Continental Europe.

- **Yorkshire Land Partnership**, which brought together different stakeholders to generate and share knowledge about land management and carbon sequestration.
- Local Levy-funded catchment management projects coordinated through the **Yorkshire & Humber Climate Commission**.

In addition, local authorities in rural areas could issue municipal bonds to support the agricultural transition in ways that overcome social challenges in their areas. CDFIs play a particularly important role here, with nearly 50% of all SME loans by CDFIs in the UK going to regions that are likely to be most affected by the transition to net zero (Robins et al., 2021; Responsible Finance, 2023a). To scale up inclusive place-based solutions in agricultural lending, CDFIs would need support with sector expertise and with funds and technical resources for farms seeking to transition their farming methods and business models.

By aggregating smaller investments, sufficient materiality for investment cases can be built for particular geographical regions. Due to the complex dynamics of relationships between actors in the food and agriculture value chain, as well as being relevant to the place, an actor-based approach is recommended: one that considers the different needs and challenges, power dynamics and risks of those in the value chain – e.g. a tenant farmer versus a landowner; an SME versus a larger farm. Aggregation models have been proposed to support farmers, foresters and other land managers in accessing environmental markets (GFI, 2023). These could be developed for specific regions to build critical mass and trust. A key enabler would be identifying the funding needed to cover the £100,000–200,000 in upfront costs typically required to establish such financial models (ibid.). Banks have a role to play in supporting these plans through providing advice, access to their networks and finance, and, in collaboration with various stakeholders within a region, identifying new ways to finance local transitions.

5. Develop and embed shared social and environmental indicators that are relevant and useful for progress towards a just transition for farmers, agricultural workers, suppliers, communities and consumers.

By creating a common language, different stakeholders can better understand the social, nature and climate risks and opportunities relating to a just agricultural transition. This is particularly important for users of social and environmental data, such as financiers and large buyers who will need to disclose their Scope 3 emissions, including those of the farms they finance or source from. Similarly, data needs to be useful for farm-level decisions for the benefit of farmers, workers and communities, as well as helping to inform progress towards wider environmental and social objectives. It is important that baselines are future-proofed, to ensure they can adapt to evolving data needs and infrastructure; government guarantees on this were recommended in the workshop. While much investment in data across the financial sector has focused on environmental metrics, relevant social metrics already exist that can be applied to the UK agricultural sector. These include those tracking jobs created, human rights, fair work, living wages, mental health, skills and knowledge development, gender equality, social dialogue and community impact.

Progress in developing such indicators includes:

- The **British Standards Institute and Defra** are hosting stakeholder dialogues to determine better standards for investments in nature.
- The **Global Farm Metric**, a coalition of food and farming organisations, has developed a 'common framework' for the social, economic and environmental sustainability of farm systems. Its social metrics track community outcomes, including the health, wellbeing and resilience of farmers and their families, knowledge and resource sharing, and relationships between farms and their communities.

- The **Soil Association Exchange** (SAX) uses remote sensing to ease the reporting burden for farms, while also incorporating social metrics such as land access. Such technological innovation can help to bring down cost barriers, especially for smaller farmers.

- The **Country Land and Business Association** (CLA) is conducting a survey to gather datapoints from their members on, among other things, social care services, community support and employment opportunities offered by landowners, with the aim of informing government.

Further research and engagement are needed to evolve and embed such social indicators into the fast-evolving environmental markets, and within government, business and finance. However, by measuring and monitoring them, it is hoped that risks highlighted above in Table 2.1 can be acknowledged and mitigated to generate social opportunities for those in the agricultural sector who are most vulnerable.

Given the public environmental and social good that could be catalysed by establishing baselines and core KPIs, there is a case to publicly fund some of the costs of data collection and collation. The devolved governments in Northern Ireland and Wales are already providing funding for this purpose: Northern Ireland's Soil Nutrient Health Scheme provides £45 million to farmers to undertake baselining, which is required to access future funding programmes and it has achieved 95% uptake (DAERA, 2023); and the Welsh Government has supported the Environment and Rural Affairs Monitoring & Modelling Programme. Receipt of government funding could be made contingent on social and environmental baselining, using a common framework (as suggested by one workshop participant).

Policymakers are responsible for bringing consistency to the baselining process, to ensure the data collected is accessible, credible, comparable and verifiable, and that there are overarching standards in place to give confidence and provide common language (GFI, 2023). A concept like the Energy Performance Certificate (EPC) for residential housing, which offers a simple, widely understood and mandatory measure of energy efficiency, could be developed. A similar performance certificate for agricultural land could include measures of a farm's contribution to employment and its community engagement, alongside metrics such as carbon and biodiversity.

Any shared social and environmental metrics that are produced could be connected to corporate and financial report frameworks through the Financial Conduct Authority's Sustainability Disclosure Requirement, the Transition Plan Taskforce and to global initiatives such as the International Sustainability Standards Board. This reflects our earlier recommendation that financial institutions should "work to ensure that social and just transition factors are effectively included in key frameworks for reporting and transparency" (Muller and Robins, 2022). By assessing social risks, ensuring the participation of affected stakeholders and sharing benefits, there is a better chance of building resilience and sustainability for the farming community and UK food production.

6. Take an intergenerational approach.

Backed with supportive policy and a clear sector-level vision, finance providers can better tailor funding opportunities and guidance for new entrants, tenant farmers and succession planning.

Financial institutions can look to better support new entrants who may not have the land, capital or the business track record to access conventional funding, but who might be suited to entrepreneurial schemes. **Examples of these forms of support include:**

- The **British Business Bank's** Start Up Loans programme.

- The new entrant support offered across different UK regions by the **Landworkers' Alliance**.

- The **Natwest Accelerator** for those looking to venture into new markets or seeking further investment.

- **Regenerate Asset Management's** Regenerate Outcomes programme, which helps farmers transition to regenerative agriculture by sponsoring a bespoke mentoring programme and data service.
- Financing and complementary consultancy services offered by **Oxbury**, a UK agriculture bank, through its New Gen support for people aged under 40 looking to enter the farming business; Oxbury points out that "Without new entrants, our collective need for a strong, resilient farming and food supply chain will be difficult or even impossible to maintain" (Oxbury, 2023).

The availability of good quality land in the tenant sector will be a key enabler for intergenerational access to the farming profession. The social contribution that private finance can make here is to encourage landowners to work with tenants to find holistic solutions, seeking to ensure that no farm business is harmed by their decisions, and a just transition is pursued.

Barclays suggests that succession planning is put in place when there is the prospect of passing a farm from one generation to the next, and the bank signposts professional advice that might be useful alongside banking services. Consideration for how this process can be managed in a fair way, ensuring the transition of jobs and skills so that communities are future-fit, will be important.

If they have financial security, new generations of farmers are more likely to research and adopt sustainable farming practices, new technologies and be able to access funding opportunities (Harkness et al., 2021). This will increase the chances that landowners and land managers (including farmers and farm workers) are adequately and fairly rewarded, sustainable land management is practised, and healthy and affordable food is widely available.


Photo: Arno Senoner, Unsplash

6. Conclusions and next steps

It is widely recognised that the agricultural and food system needs a transformation to ensure that sustainable development goals are met. This is true globally and in the UK. The war in Ukraine, the surge in inflation, the accelerating climate and biodiversity crises, deepening inequalities, and, for the UK, the rethinking of government policies post-Brexit, all point to the need for deep-rooted change across agriculture and food, with no time to lose.

Government policy is a vital component of the agricultural sector's viability but the finance sector has a critical role as a provider of capital to the entire food and agricultural system. It can use its relationships with food retailers, processors and suppliers to drive a systemic response to social impacts and sustainability targets.

The research and dialogue brought together in this report point to the just transition as a positive approach to addressing interlocking and systemic challenges. In identifying the barriers that face the agriculture sector and the related financing models, this report has taken a people-centred approach to suggest ways in which the financial sector can work with farms and rural workers, communities, food manufacturers and retailers, policymakers and regulators to better support a just transition in UK agriculture in the face of climate change and biodiversity loss.

Over the next year and beyond, the Grantham Research Institute and FJTA members will seek to ensure that these recommendations are implemented.

Further work may include:

- Evaluating the social risks and opportunities that arise along agricultural **supply chains**, including retailers and food and drink companies in research.
- Developing research on suitable **just transition metrics and KPIs**, and how they can be adopted within financial design for transitions in nature and agriculture.
- Assessing how just transition principles can be secured with the rise in **data and technology capabilities** in agricultural finance and new environmental markets.
- Identifying and testing **place-based just transition financial innovations** in different regions and land-use types, to support action across different contexts and risk profiles.
- Encouraging real-world sustainable agricultural **innovations that are truly bankable and fair** for workers, and smallholder and tenant farmers.
- Identifying 'what good looks like' in terms of **participation and co-production in agricultural transition activities** across the UK.

> "Government policy is a vital component of the agricultural sector's viability but the finance sector has a critical role as a provider of capital to the entire food and agricultural system.

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