

A ROADMAP FOR FINANCING A REGENERATIVE AGRICULTURAL TRANSITION IN SCOTLAND





Herbal ley grown on Whitriggs Farm

ABOUT WWF SCOTLAND AND ACKNOWLEDGEMENTS

WWF is the world's leading independent conservation organisation working to ensure people and nature can thrive together for generations.

WWF Scotland has led the call for a low carbon future for Scotland for almost two decades, proposing ambitious emissions reduction targets and policies that will transform sectors of our economy, bringing opportunities for renewed investment and job creation.

WWF Scotland thanks Royal Bank of Scotland, a part of NatWest Group, for sponsoring this work. Royal Bank of Scotland has been supporting customers, businesses and communities across the country for almost 300 years. A supporter of the Royal Highland Show — Scotland's largest agricultural event, since 1981 — the bank is one of the biggest lenders to the sector, with a specialist team of relationship managers able to understand the unique needs of land-based businesses. The views expressed and recommendations made in this report are those of WWF Scotland and may not necessarily be those of the Royal Bank of Scotland or of the NatWest Group.

Cover photo: A swallow flying above cattle, Whitriggs Farm



1. INTRODUCTION

This roadmap follows WWF UK's roadmap for financing a regenerative agricultural transition in England. Like the roadmap for England, this document is designed to support, guide and accelerate a process of transition for the agriculture sector through a mix of policy and finance recommendations. This roadmap focuses on actions for the Scottish Government, the Scottish Parliament and financial institutions but we recognise there are other food system actors such as retailers and food processors who will also need to play their part. This report is smaller in scale and scope than WWF UK's roadmap, which also highlights the role of supply chain actors.

The aim of this roadmap is to mobilise public finance and finance from banks, insurers, investors and supply chain partners to ensure that farmers and crofters receive the financial support they need at each stage of their journey to more climate and nature-friendly farming and are rewarded for tackling climate change and restoring nature.

Scotland's land has a vital role to play in the fight against climate change and nature loss. Our farmers and crofters are key to restoring nature, reducing emissions, and supporting rural communities while working to produce food and other goods. Although some land managers have taken steps to manage their land in climate- and nature-friendly ways, actions on-farm are too often carried out to the detriment of our natural environment. Scottish agriculture is responsible for almost one fifth of national greenhouse emissions and is Scotland's second biggest emitter behind transport. To remain on track to reach net zero as a nation by 2045, the sector will need to make dramatic reductions in emissions. However, emissions from agriculture have remained almost static for over a decade, decreasing by only 1% between 2021 and 2022. Species abundance continues to decline across Scotland, with 11% of species now under threat and land use identified as a key driver of decline. As it stands, agriculture needs to be better supported by the Scottish Government, financial institutions and the market to do more to enable national efforts to tackle the climate and nature emergencies and ensure nutritional security.

More sustainable farming practices also have the potential to prepare farmers and crofters for a climate that is already changing. Extreme weather events in 2017 contributed to losses of up to £161 million for Scotland's farmers due to livestock losses and lower crop yields. Research has shown that water scarcity events could double by 2050 – with droughts occurring at least every second year in some parts of Scotland, dramatically risking the productivity and profitability of Scotlish agriculture. Adopting climate- and nature-friendly measures can deliver win-wins for farmers and crofters as the local climate changes, with healthier and more diverse ecosystems more resilient to shocks. As the frequency of extreme weather events increases, the majority of Scotland's farmers and farm businesses will be better able to remain profitable by introducing regenerative farm practices, including minimising or eliminating tillage where appropriate, rotational livestock grazing and planting cover crops.

The scale of the challenge in reaching net zero emissions and reversing the loss of nature means that we urgently need to see increased ambition in how we support farmers and crofters through financial interventions from both the public and private sector. Both the Scottish Government and financial institutions have a key role to play in providing finance to support this transition – the role of financial institutions will be particularly key in supplementing public spending as the available public budget for agriculture has seen sharp declines in recent years.

2. OUR SHARED VISION FOR FARMING AND CROFTING

This roadmap is intended to support <u>WWF Scotland's vision for agriculture</u>, which highlights the role of agriculture in producing nutritious food while restoring nature and tackling climate change. Our vision is for a food production system where nature thrives, emissions are reduced, and food is produced sustainably, providing healthy, accessible, and affordable food to all with farm businesses remaining profitable. We believe that the transition to a more sustainable agricultural system needs to be fair, managed and inclusive. By creating a fairer food production system, we can continue to support thriving rural communities and make sure that farmers and land managers are guaranteed stable incomes, and fair market returns for the goods and services they provide.

At the heart of this vision is the reorientation of the food system with support for agroecological and regenerative forms of production as a first principle, reducing dependence on artificial and costly inputs that not only cause pollution and climate impacts in Scotland and the UK but drive impacts overseas. Moving to a sustainable production model is the only way to safeguard food production in Scotland for future generations. Sustainable production is essential to build up the fertility of our soils thus improving the inherent productivity of our agriculture. This transition requires a fundamental shift in the financing of food production from both public and private sources.

We know that the Scottish public support this vision. Recent polling has shown that the majority of people in Scotland recognise the important role farming and crofting must play in tackling climate change and restoring nature, and support farmers being better supported to produce our food and protect nature.

WHAT IS 'REGENERATIVE AGRICULTURE'?

Whilst its definition is evolving, we approach regenerative agriculture for this roadmap as a set of farming principles that foster healthy ecosystems, particularly within soils, rather than relying on chemical processes. The five main principles for regenerative agriculture are: maintaining a living root system within the soil, minimising soil disturbances, maximising crop diversity on farm, keeping soil covered throughout the year, and if possible, integrating livestock into an arable system.

It is widely acknowledged that to be successful, a regenerative agricultural transition must also acknowledge social impact, such as on livelihoods and wellbeing.

3. WHERE ARE WE NOW?



Cows grazing on Whitriggs Farm

POLICY DEVELOPMENT

The Agriculture and Rural Communities (Scotland) Act 2024 enables Scottish Ministers to continue making support payments to Scottish farmers, crofters and land managers. Although the Scottish Government has set out its ambition to become a global leader in sustainable and regenerative agriculture, clarity about what this entails and how this helps Scottish agriculture deliver for climate, nature and people is lacking. Further policy development will be required to identify a clear path forward for agriculture. Upcoming developments in the proposals for a Natural Environment Bill, the Land Reform Bill, Rural Support Plan and Climate Change Plan update provide decision-makers with further opportunities to deliver a new vision for thriving, resilient, and productive landscapes in a net zero Scotland.

The Scottish Government is committed to a just transition to net zero, <u>defining</u> this as how we get to a net zero and climate resilient economy, in a way that delivers fairness and tackles inequality and injustice.' It is vital that while recognising that a shift to a low-emission, high-nature model of farming is essential, this should be delivered in a way that tackles the imbalance that exists within agriculture, particularly when it comes to how the sector is financed.

FINANCIAL INSTITUTIONS (BANKS, INSURERS, INVESTORS)

In the process of developing the roadmap for England, WWF UK hosted a series of workshops and bilateral dialogues involving experts from across the UK food value chain, including banks, insurers, asset managers, farmers and farm representatives, NGOs, and policymakers. These discussions unearthed existing initiatives for promoting more sustainable ways of farming to build on, that are also relevant to the Scottish context. An overview of these initiatives is below.

Financial institutions are increasingly investing in the transformation of sustainable food systems. Certain UK banking groups now offer favourable rates and term lengths for farmers who adopt regenerative practices. These preferential terms may include capital repayment holidays, increased overdraft limits, reduced interest repayment rates, and no-fee lending. Some banks are working with stakeholders in the agrifood supply chain to help incentivise adoption of climate positive and regenerative practices by their suppliers.

Banks are also increasingly equipping their farm relationship managers with knowledge on climate risks and providing financial advice to encourage the adoption of climate-friendly practices. Some banks have even collaborated with other sectors in the value chain through pilot programs, offering support for data collection or providing reduced rates towards the costs of new equipment.

Asset management companies are increasingly exploring the potential impact of climate and nature risks as an element of fiduciary duty in reporting to their clients. With the publication of the framework from the Task Force on Climate-related Financial Disclosures (TCFD), financial institutions have to disclose their climate-risks and opportunities and assess how these can be factored into their business operations and future investments. The same is expected to happen with nature-related risks and opportunities once the Taskforce on Nature-related Financial Disclosures (TNFD) is mandated by regulators in the UK. While asset managers are not yet prescribing specific targets or criteria for listed companies, they are facilitating dialogues with companies regarding environmental, social and governance (ESG) strategies, disclosures, and reporting frameworks to enhance their understanding in these areas.

Insurance companies are investigating ways to assist farmers in future-proofing their businesses. This largely involves pilot schemes for parametric insurance, a type of coverage that pays out a fixed amount against the occurrence of a specific event, such as extreme weather events, without requiring a detailed assessment of the insured's actual losses. Such pilots include the provision of parametric insurance for yield loss caused by flood risk and heat stress. Insurers are also increasingly conducting modelling exercises to assess potential future climate- and nature-related risks to inform the development of new insurance products.

CASE STUDY

ETHICAL DAIRY, RAINTON FARM, DUMFRIES AND GALLOWAY

Rainton Farm is a 850 acre tenanted and certified organic and 100% pasture-fed farm situated in Dumfries and Galloway. The farmland is mostly rough grazing and woodland, and the home of a herd of around 125 dairy cows, farmed using regenerative farming practices. It has been farmed organically for the past 25 years, having started the transition in the 1990s. David Finlay who farms here admits that during the first few years of the transition to organic it would have been a struggle to keep the business afloat had it not been for the sale of organic milk to the organic ice cream market which kept the business going. However, once the organic farming system was well established, it started to pay off. Now at Rainton farm, David's system is demonstrating that it is possible to produce equal amounts of quality, affordable food, enhance the environment, ensure high standards of animal welfare, give the people who work there a sense of purpose, pride and public appreciation, and stay profitable. However, he is very clear that the switch to this type of farming needs a stronger market to drive the transition; a market created for food which delivers the outcomes society needs to be sustainable.

Rainton Farm, like many other farms in Scotland, highlights the need for supporting farmers looking to transition to regenerative agriculture. Governments and financial institutions need to work together to support farmers and share risks. There is also a clear role for government and financial institutions, as well as retailers, to develop the type of markets which can drive the transition to regenerative agriculture.



David Finlay with some of the dairy herd at Rainton Farm

4. THE ROADMAP

The key audiences for this roadmap are the Scottish Government, the Scottish Parliament, and financial institutions. There are no direct actions for farmers in this roadmap, as we recognise that the burden of action needs to sit with government and the supply chain first, and that each farm will have its own circumstances and needs. We also recognise that farmers themselves are best placed to tell us what they need to invest in change, therefore the Scottish Government and financial institutions need to continue to engage with and listen to voices of farmers and crofters from across Scotland.



Crofter Helen O'Keefe feeding a lamb on Middleton Croft

ACTIONS FOR POLICY MAKERS AND GOVERNMENT

Timeline of actions for policy makers and government – focused purely on policy and funding levers with deadlines for the end of 2025, 2026, 2027:

2025

Publish a Code
of Practice for
Sustainable and
Regenerative
Agriculture that puts
Scotland on the path
to being a world
leader in sustainable
and regenerative
agriculture.

Publish an ambitious Rural Support Plan and clearly communicate expectations to the sector.

Give Regional Land Use Partnerships a clear mandate and adequate support to coordinate public and private investment to deliver landscape and catchment scale collaboration.

Put Scottish agriculture on the path to contribute to net zero by 2045 through targets, policies and proposals in the next Climate Change Plan.

2026

Improve Whole Farm Plans to include a wider range of environmental and business actions.

Increase the budget for supporting agricultural knowledge and innovation systems to £20 million per year.

2027

Introduce new support schemes for farming and crofting, clearly articulating their contribution to climate mitigation, nature restoration and a just transition.

Set out how options in new farming schemes can be bundled, stacked or blended with private finance to lead to greater outcomes for the climate and environment.

POLICY DEVELOPMENT

Increasing the uptake of nature-friendly farming measures could deliver a reduction of almost 40% of greenhouse gas emissions on 2017 levels, whilst guaranteeing the productivity of Scottish agriculture. However, policy measures currently proposed to reduce agricultural emissions get us less than halfway to where we need to be for Scotland to remain on track to reach net zero by 2045. New and ambitious agricultural policy must therefore provide stability to farmers seeking to take positive steps to decarbonise, reduce dependence on external inputs, and weave nature back into their farmland.

CODE OF PRACTICE FOR SUSTAINABLE AND REGENERATIVE AGRICULTURE

The Scottish Government's Code of Practice for Sustainable and Regenerative Agriculture should give a clear outline of the practices and standards that will make Scotland a world leader in regenerative agriculture. The Code should set out what good farming, environmental and business practice looks like. It should also set out what measures are or will become mandatory for land managers, and what measures are required to make improvements on-farm. The Code should also align with measures included in other legislation for land management, including land reform and wildlife management.

CLIMATE CHANGE PLAN

The next Climate Change Plan, now expected in 2025, must include credible targets, policies and proposals to ensure the contribution of Scottish agriculture to meet the new Scotland carbon budgets and to contribute towards net zero by 2045.

WHOLE FARM PLANS

The Scottish Government has introduced Whole Farm Plans as a requirement for receipt of the Basic Payment Scheme starting in 2025. These Plans will require land managers to carry out at least two of the following activities: carbon audits, biodiversity audits, soil analysis, animal health and welfare plan, integrated pest management plan. As Whole Farm Plans are introduced, the Scottish Government should take steps to make sure that they communicate the benefits of carrying out whole farm planning and provide training or tailored advice to those who require it to complete the plan.

Going forward, the Scottish Government should seek to build on this initial version of whole farm planning. Whole Farm Plans should be produced with objectives for 1, 2 and 5 years and identify funding requirements and options, with the option to incorporate a review supported by further advice for land managers. The Scottish Government should look to include further measures and set objectives within plans that support climate mitigation, adaptation, nature restoration alongside food production. These objectives could include assessment of natural capital, nutrient management, integrating trees and hedges, and protecting and enhancing species. Whole farm plans could also include a financial audit of the farm business and explore opportunities for the farm in a market context – for example rebalancing enterprises or identification of areas within the farm business where productivity and profitability could be improved.

As they evolve, these plans should be underpinned with monitoring and evaluation, using data obtained to benchmark progress and show continuous and genuine improvement.

RURAL SUPPORT PLAN

The Rural Support Plan will set out the Scottish Government's priorities for providing support to farmers and crofters. The Agriculture and Rural Communities (Scotland) Act sets out what should be included in the Plan; this includes an outline of how the Plan will reduce greenhouse gas emissions and improve biodiversity of agricultural land, an overview of support expected to be provided, and an indication of how support is to be divided between support schemes. By the end of 2025, Scottish Government should have published an ambitious outline of their priorities for the period 2026 – 2030 and beyond that ensures food production and land management will be done in more climate and nature-friendly ways.

It is important that farmers, crofters and land managers have a clear understanding of what the Rural Support Plan will include and how it will interact with other legislation and policies. The Scottish Government should communicate outcomes and expectations to the sector clearly, offering advice and support alongside the Plan.

PUBLIC FINANCE FOR AGRICULTURE

The Scottish Government currently spends £660 million each year on farm support payments, but this system does not support the farming systems that are most valuable for emissions reduction and nature protection. This needs to change; public money should prioritise support for measures that reduce emissions and protect and restore nature.

The success of the Scottish Government's proposed approach to farm funding will be dependent on the allocation of funding across policy mechanisms, and the amount of funding it receives from the UK Government. The UK Government should increase the overall farming budget at least in line with inflation to reflect the needs of farmers in each of the four nations of the UK.

The Scottish Government should commit to spending this money in a way that meaningfully tackles climate change and nature loss. WWF Scotland believes that 75% of available funding for agriculture should support measures which enable farmers to produce food while restoring nature and tackling climate change. By supporting activities such as integrating trees and hedges, peatland restoration and improved soil management, we can help nature thrive, lock in carbon and support climate adaptation, whilst building resilience into the agricultural system.

WWF Scotland recognises that the scale, type, and timing of financial interventions from both the public and private sector will also need to be tailored to the individual transition journey facing farmers and their farm.

FURTHER FINANCIAL INVESTMENT

AGRI-ENVIRONMENT AND CLIMATE SCHEME

Agri-environment schemes have been an important source of funding for farmers and crofters who want to farm in a more climate and nature-friendly way. However, these schemes have traditionally been underfunded and unable to deliver key benefits. The Scottish Government must now commit to reversing previous funding cuts, funding full rounds of the current Agri-Environment Climate Scheme and increase its overall spend on agri-environment measures to support climate and nature action as support schemes change in 2027.

Consideration should be given to enhancing options and payment rates to create more integrated change across farms in support of regenerative outcomes. This should include payments for all farm types for low input farming, for leguminous break crops, development of holistic grazing plans, advanced nutrient efficiency, and funding for carbon baselining.

INVESTMENT IN AGRICULTURAL KNOWLEDGE AND INNOVATION

Increased investment in the Farm Advisory Service can speed up the rate of Scotland's emissions reductions, deliver transformational change and create green jobs in rural areas. Advisory services for land managers should increase their provision of advice, knowledge sharing, and skills development so that all farmers and crofters can identify opportunities and understand how climate change and the transition to net zero will affect their business. WWF Scotland has called for investment in advice and skills for farmers and crofters and believes that the Scottish Government should scale up the budget for training, knowledge sharing, and advice year-on-year to reach £20 million per year by 2027.

PRIVATE FINANCE OPPORTUNITIES

The scale of funding required to transition the entire land management sector to one that can deliver for climate and nature has been estimated to be £1.5 to £1.8 billion per year for the next decade. This funding requirement is set against a backdrop of financial constraints, with the agriculture budget expected to reduce by £75 million in real terms in coming years. Private finance (by which we mean all appropriate types of finance, including the role of the wider agricultural and food production supply chain) will therefore play a crucial role in supporting the agricultural sector adapt and transition. The Scottish Government and financial institutions must work together to create the right enabling environment to financially support increasing numbers of farm businesses implementing climate- and nature-friendly farming practices. For example, a clear articulation of how options in farming schemes can be bundled and stacked to lead to greater outcomes, and blended with private finance should also be prioritised.

LONG-TERM STRATEGIC FOOD AND LAND USE POLICY

REGIONAL LAND USE PARTNERSHIPS

Regional Land Use Partnerships (RLUPs) should be given a clear mandate and adequate support to coordinate both public and private investment to deliver landscape or catchment scale collaboration to guarantee public goods outcomes. The RLUP model must be rolled out across Scotland and the Scottish Government needs to re-start championing the delivery of Scotland's Land Use Strategy (LUS). The aim of the LUS and the RLUP model was always to deliver integrated land use, providing a critical framework to minimise the trade-offs and maximise the synergies which stem from tackling the 'triple challenge' of nature recovery, averting dangerous climate change and ensuring nutritional security.

Community engagement in the development of plans to deliver large-scale collaboration should become a key part of Partnership operations, recognising the role that communities can play in investing in nature-based solutions. RLUPs could also support the provision of community natural capital funds to share benefits of investment, facilitating reinvestment into rural communities.

FUNDING TO SUPPORT NUTRITIONAL SECURITY

Future agricultural policy must reflect changing market demands and ensure that Scotland's definition of high-quality food also meets environmental standards as well as market and consumer expectations.

We can and should use land we already farm much more efficiently to grow more food for people and make space for nature at the same time. Future agricultural policy should recognise and support farming systems that deliver for food production, climate and nature, while at the same time support the Scottish Dietary goals.

ACTIONS FOR FINANCIAL INSTITUTIONS (BANKS, INSURERS, INVESTORS)

1 COLLABORATE WITH REGENERATIVE AGRICULTURAL EXPERTS TO SUPPORT UPSKILLING OF RELATIONSHIP MANAGERS

With this knowledge, relationship managers could help farmers identify key interventions to achieve regenerative outcomes. Develop sector-specific climate training programmes for regenerative agriculture to support relationship managers to build their knowledge, skills and confidence to speak to farmers about key interventions farmers can implement to achieve positive outcomes for nature, the climate, and the long-term livelihoods of farmers and farm workers. These sector specific programs should draw from the expertise of academia, regenerative farmers, NGOs, and agronomists to agree criteria for regenerative farming that will ensure their interventions actively contribute to achieving regenerative outcomes.

INCREASE LENDING TO SUPPORT AGRICULTURAL CUSTOMERS' TRANSITIONS

Certain banks are providing preferential lending for farms able to demonstrate positive environmental performance or plans related to a range of indicators. However, this must be scaled across all banks. Lending terms could include capital repayment holidays, increased overdraft limits, reduced interest repayment rates, and no-fee lending.



Farmer Stuart Mitchell checks bales of hay on Whitriggs Farm

CRITICALLY EVALUATE REGENERATIVE CLAIMS WITHIN THE SECTOR

Companies should undertake due diligence to ensure that initiatives branded as "regenerative" are both action and outcomes oriented, as well as measure up against criteria such as the <u>SAI Platform</u>. Investors can also challenge the transparency of disclosures and actively work to improve them. This involves assessing whether claims align with global frameworks such as Task Force on Climate-/Nature-Related Financial Disclosures, International Sustainability Standards Board, or Science Based Targets Initiative/Network.

4 SHOWCASE BEST PRACTICES AND POSITIVE IMPACTS FROM THEIR PEERS OR ADJACENT SECTORS

Financial institutions should ensure that risks and opportunities are adequately considered, and credible action plans are developed. Asset managers can act as intermediaries, facilitating the sharing of industry best practices among companies through their networks.

5 BACK EMERGING DATA AND TECHNOLOGY STARTUPS THAT FACILITATE THIS TRANSITION

Banks could achieve this through preferential lending terms to support emerging technologies seeking investment, like those converting agricultural byproducts into nutrient-rich, low-emission fertilisers are actively seeking investment. Insurers are also uniquely placed to offer risk management and data capabilities, which could be of great use when measuring the effectiveness of these technologies.

5. A CALL TO ACTION

The next decade is a critical time for Scottish agriculture. Farmers and crofters have a key role to play in providing solutions to climate change and nature loss, and the Scottish Government and financial institutions have a key role in enabling and supporting this transition.

By implementing more climate and nature-friendly farming practices, it is possible to reduce emissions while restoring nature and continuing to produce nutritious and affordable food in a way that safeguards the profitability and productivity of Scottish agriculture for future generations.

With support from the public and private sector, as set out in this roadmap, regenerative farming can be a profitable and rewarding form of producing high quality, nutritious food in Scotland for generations to come.

No one can respond to this challenge alone. Government, the private sector, NGOs, and farmers and crofters all must work together to guarantee a just transition to a more climate and nature-friendly farming future.



OUR MISSION IS TO CONSERVE NATURE AND REDUCE THE MOST PRESSING THREATS TO THE DIVERSITY OF LIFE ON EARTH.

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