



The role for Agriculture Policy in Mainstreaming Aquatic Restoration

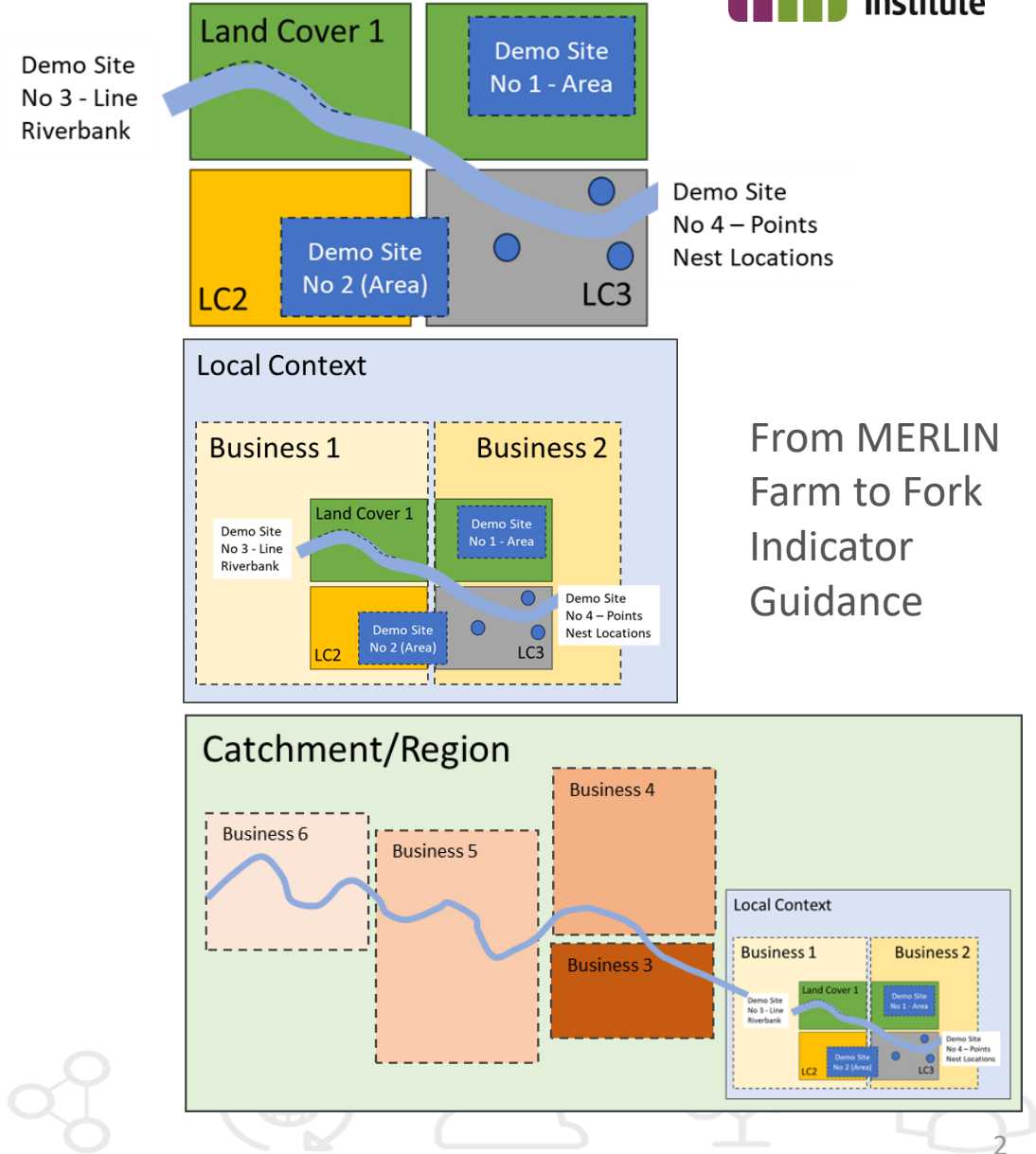
Keith Matthews, Doug Wardell-Johnson, Dave Miller, Kirsty Blackstock
Presentation at the MERLIN Project Day, Heriott Watt University, Edinburgh,
26 September 2025



The James
Hutton
Institute

Key Messages

- Why agriculture matters for aquatic restoration
 - Context for rivers and wetlands
 - Sites, businesses, catchments ➔
- Merlin EU – Ag. Sector Strategy
 - Summary of high-level messages
- Role for agriculture in a regional scalability plan
 - Using Forth Basin example.
- Architecture of agriculture policy in Scotland.
- Agriculture Policy choices that will matter.



Why agriculture (policy) matters

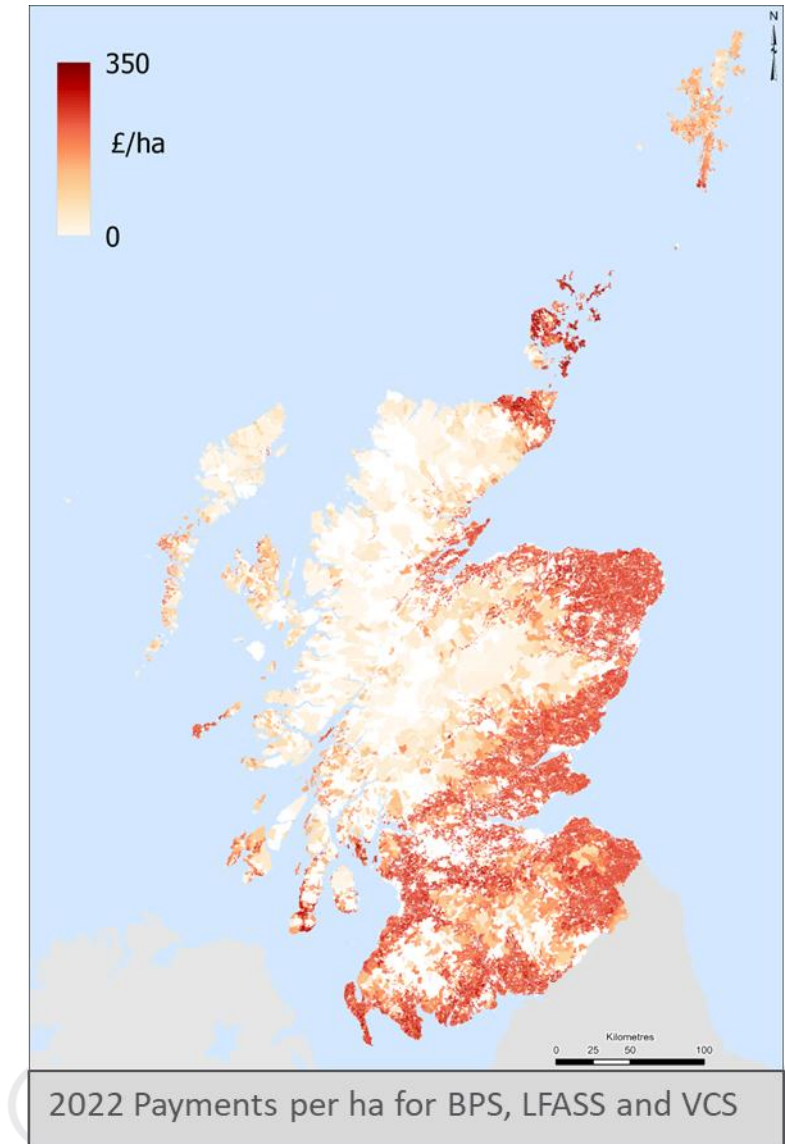
- Physical Context for rivers and wetlands – Area

	Note	Area (M ha)	%
Scotland	all land	7.7	
Mapped in LPIS*		6.5	84%
Single Application Form	land use	5.4	70%
Basic Payment Scheme	active	4.1	53%
Payment Region-1		1.9	25%

- Agricultural Management – shapes states, pressures and impacts, but is also responses

- Agricultural Policy

- Funding (2022) – Overall **£587M**, direct - £419M ➔ agri-environment **~£65M** per annum**
 - Regulation – shaping management via Statutory Management Requirements, Cross-Compliance, GEAC, Whole Farm Plans, scheme guidance.



*Land Parcel Identification System

**This value is averaged 2016-2022

Merlin Ag Sector Strategy



Agriculture Sectoral Strategy

Read the strategy here →





Vision
A transformed Agriculture Sector into its resilient, productive and interconnected farming systems.

Action B	Sharing knowledge and public support mainstreamed
Action A	
Action C	Reforming... to rebalance... up environ... broaden the
Action D	
Action F	Strengthen... that reward... the investm... transition to
Action E	



Vision

A transformed Agriculture Sector mainstreams NbS into its practices, fostering resilient, appropriately productive, sustainable, and interconnected farming systems.

NbS in this context

- Interventions on agricultural lands that benefit agricultural practises and improve freshwater ecosystem... to increase the provision of multiple ecosystem services.
- Increase resource use efficiency to cut pollutant emissions and reduce water abstraction.
- Optimize soil, crop, and livestock management to enhance soil functions, nutrient cycling, and water retention.
- Restore catchment hydrology to support nutrient recycling, pollutant breakdown, and water storage.

The NbS are implemented at:

- Field and farm
- Stream (sub-catchment)
- Floodplains (large catchments)



www.project-merlin.eu
 [freshwaterblog.net](https://www.facebook.com/freshwaterblog.net)
 [merlin-project](https://twitter.com/merlin-project)
 [merlin-eu](https://www.linkedin.com/company/merlin-eu)
 [MERLINproject.eu](https://www.facebook.com/MERLINproject.eu)

The MERLIN project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036337.





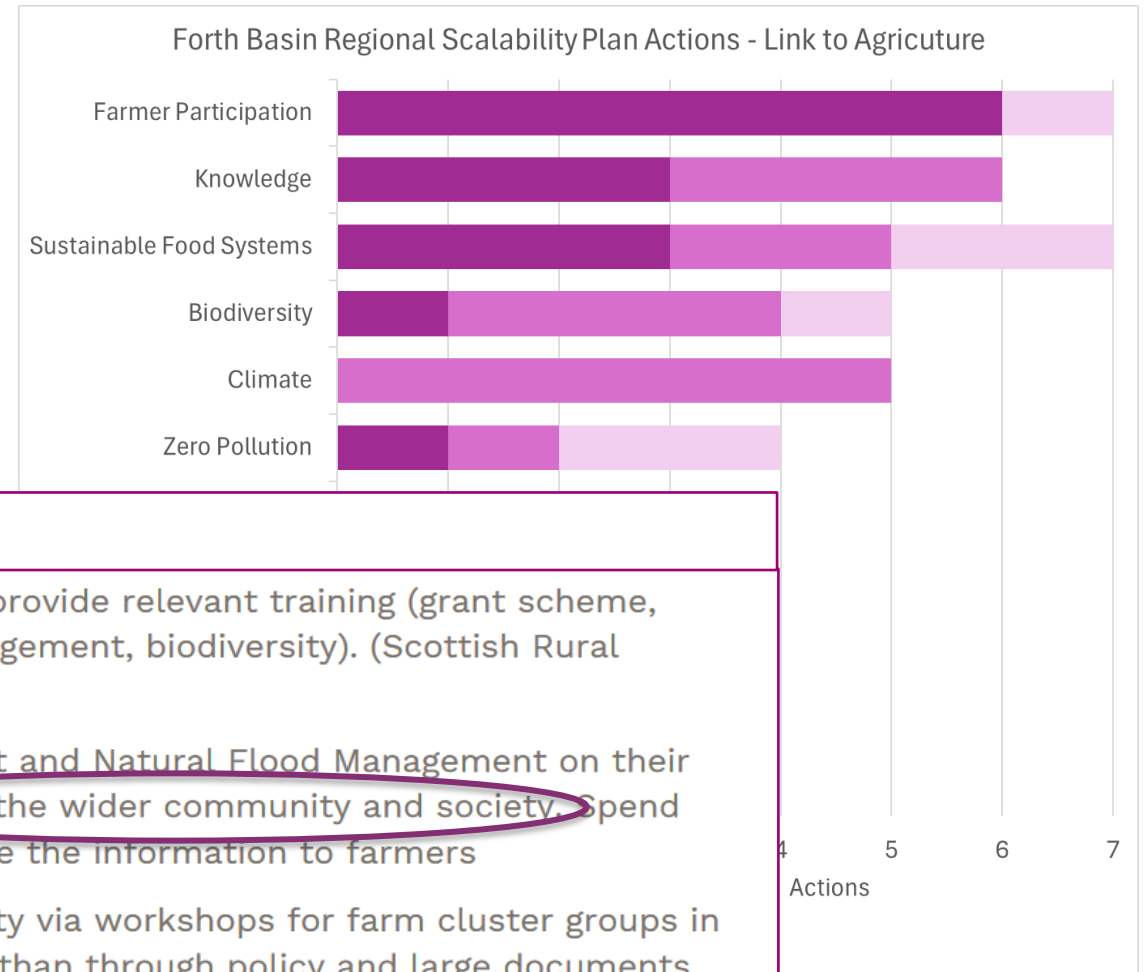


Forth Regional Scalability Plan (RSP)

RSP addresses:

- a wide range of actions (42)
- unified by expectations of mainstreaming and transformation

Agriculture often a key part (18)



Example - Farmer Participation Actions

Action 4 - Regard land managers as **active conservation agents** and provide relevant training (grant scheme, green finance, offsetting, nature based solutions, natural flood management, biodiversity). (Scottish Rural Agricultural College)

Action 5 - Give farmers feedback regarding biodiversity enhancement and Natural Flood Management on their land after restoration (survey results), allow them to **get pride from the wider community and society**. Spend money on tools and staff time for restoration practitioners to provide the information to farmers

Action 6 - Communicate effectively with land management community via workshops for farm cluster groups in each catchment, farm visits and local social media platforms rather than through policy and large documents that they have not got the time to consult with.

Action 7 - Engage **the community in their catchments** through events, citizen science and / or volunteering

4 5 6 7
Actions

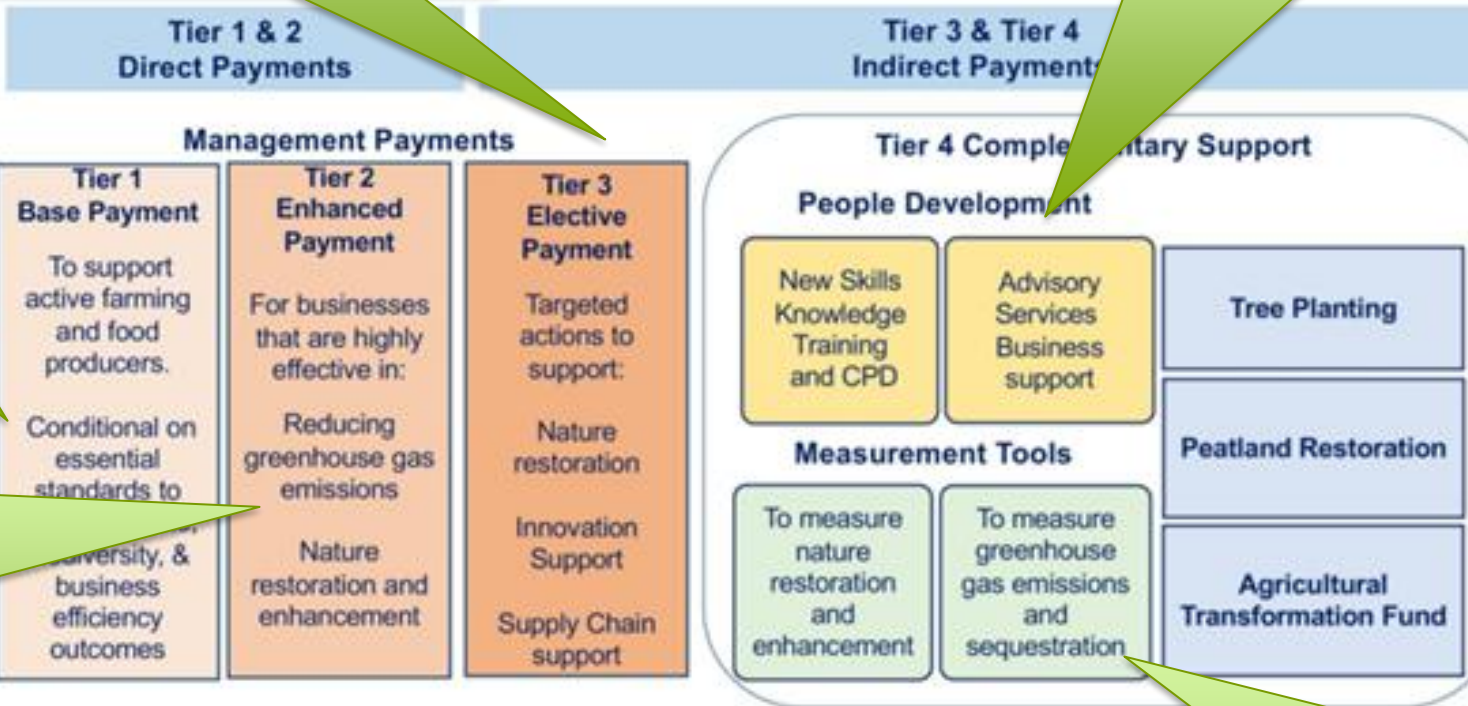


Vision for Agriculture Support beyond 2025

From the Agriculture (Scotland) Act 2020

1 Overarching objectives

“CAP Pillar 2” – Agri-environment, but also business/supply chain actions – NbS as business opportunity.



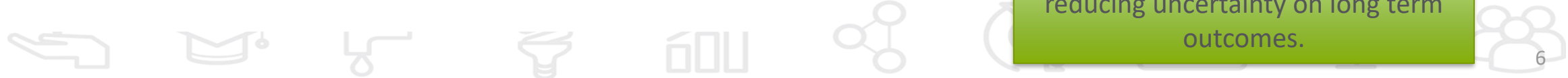
Business Viability – but also levelling up environmental performance.

Investing in people – as agents of change
 New skills, business (re)development.
 Roles for peer-to-peer and NGO facilitation.

Wider System
Trees – often multifunctional.
Peatlands – separate funds.
Transformation – need vs. funding.

Mainstreaming Agri-environment Actions
 New requirements linked to payments, menu of options.

Measuring what we value – reducing uncertainty on long term outcomes.



Agriculture Policy - Choices that matter

- **Agriculture Support Plan** – from the Act.
 - Balance between the components (Tiers) – budgets and kinds of finance:
 - Revenue - maintenance
 - Capital/Loans - creation
 - Transformation (e.g. organic conversion)
- **Getting the “credit” for existing measures**
 - On “exclusions” (~0.8M ha) – e.g. riverbanks
- **Identifying space where restoration can occur?**
 - More NbS activity on the “unclaimed” land (~1.4M ha).
- **Advice and Evaluation** as a “knowledge system”:
 - Right measures, right place, done right;
 - Convincing, grounded, open data;
 - Facilitating peer-to-peer mainstreaming.



Source for the graphic – [CAP Policy Working Paper](#)

Contact – Keith Matthews, The James Hutton Institute, Aberdeen, AB15 8QH,
Tel - +44 (0)1224 395271, Email – keith.matthews@hutton.ac.uk

Further research in the RESAS Strategic Research Programme 2022-27, in the [Land Use Transformations](#) (C3-JHI-1) and [Land Reform](#) (E3-JHI-1) projects.

Land Use Transformations - [Storymaps Collection](#), with [Land Use Change Scenarios](#), [Adding Farm Structure to Land Use Change](#), [Peatlands and Payments](#), [Updating Peatland Condition Mapping](#), [Updating Land Capability for Agriculture](#) and [Climatic Water Balance in Scotland](#).

Website for [Agrometeorological Indicators](#) across the UK under current and future conditions.

The [Review of Land Ownership Data in Scotland](#).

Previous related analyses are from the Hutton Land Systems Research Team website - <https://ics.hutton.ac.uk/research/land-systems-research-team/>

The sets of slides and maps generated in Agriculture Policy analysis from 2010 onwards are available from - <https://ics.hutton.ac.uk/research/land-systems-research-team/cap-analysis/>

For woodland expansion analysis see - [online mapping](#) and [paper](#).

The James Hutton Institute is supported by the Scottish Government's Rural and Environment Science and Analytical Services Division (RESAS)

