# Exploring present and potential integration of Natural Capital into agricultural policy processes in Scotland.

**May 2026**

**Authors**: Diana Valero, Karolina Trdlicova, Rebecca Gray, Kerry Waylen
Social, Economic & Geographical Sciences Department, The James Hutton Institute.

**About this briefing**

This briefing summarises the results of our recent report 'Exploring present and potential integration of Natural Capital into policy processes – insights from Agricultural policy in Scotland' from March 2026. This briefing is intended to provide an accessible summary that highlights the main findings and implications. If you would like to know more, we encourage you to download the full report; or for more information about this study, contact Diana.Valero@hutton.ac.uk or Karolina.Trdlicova@hutton.ac.uk.

This briefing is an output of the 'Galvanising Change via Natural Capital' project, which is JHI-D5-3, funded by the Scottish Government RESAS Strategic Research Programme 2022-2027. For more information on this project, please visit our project website https://www.hutton.ac.uk/project/galvanising-change-via-natural-capital/ or contact Kerry.Waylen@hutton.ac.uk

## What was the purpose of our study?

We explored if and how Natural Capital (NC) data or tools are or could be used in processes related to Scotland's future agricultural policy, especially monitoring and evaluation.

## Why we discuss Natural Capital in relation to agricultural policy?

Natural Capital (NC) is a way to represent nature in terms of how it provides humans with many social, environmental and economic benefits, to allow nature to be better reflected in decision-making. Agriculture is a sector with strong dependence on nature; with great influence over the state of our natural resources. It is therefore important to explore if and how working with NC could support agricultural policy development. Representing natural capital in relation to agriculture entails understanding many aspects of nature's functions in farming and crofting landscapes: not only biodiversity, but also the benefits and services it underpins, such as water supply, energy, carbon storage, and how these are supported by natural assets like healthy soils. It usually entails representing these benefits in quantified and even economic terms. In Scotland, agricultural policy is undergoing a significant transition. The Scottish Government has been developing a new agricultural policy which includes a commitment to support Natural Capital. It is therefore relevant to consider if and how data or tools related to NC may inform or influence this future policy.

*Text box 1. Agricultural policy objectives in Scotland*

> The Agriculture and Rural Communities (Scotland) Act 2024 set five overarching objectives of Scottish agricultural policy: adoption and use of sustainable and regenerative agricultural practices; production of high-quality food; promotion and support of agricultural practices that protect and improve animal health and welfare; facilitation of on-farm nature restoration, climate mitigation and adaptation; and enabling rural communities to thrive.

## What methods did we use?

Our study built on a collective discussion in late 2025 with Scottish Government staff involved in the development and future evaluation of agricultural policy. This discussion reflected on data needs, gaps and challenges to connecting NC with agricultural policy. It also built on insights from interviews from 2024 about NC with Scottish Government staff involved in this process, and a desk analysis of agricultural policy process.

## What were the topics discussed and what did we find?

### Views on using NC evidence in policy development

- There were variable levels of understanding and familiarity with NC across staff who work on agriculture policy (ranging from accounting and valuation to associations with nature restoration, climate change mitigation and adaption, biodiversity and habitats). Many are familiar with the general concept but less familiar with details of related datasets or tools.
- NC was seen as potentially related to some agricultural policy objectives, including adoption and use of sustainable and regenerative agricultural practices and on-farm nature restoration, climate mitigation and climate adaptation. However, defining *how* it is expected to be connected would allow it to be used in a monitoring and evaluation framework and help make any choices about accessing or collecting new data.
- **The potential to use NC evidence in agricultural policy development seems shaped by the need for clearly defined indicators and baseline data**. Indicators and baseline data vary for different aspects of NC (e.g. biodiversity, water quality, carbon emissions, soil health); and understanding what would be needed also varies across topics, posing different challenges.
  - **Setting clear NC indicators connected to the different agricultural policy objectives would help to understand how NC is to be approached and considered in the implementation of agricultural policy.** A framework for monitoring and evaluation (M&E) of the new agricultural policy, currently under development, would clarify or build on such indicators.

- **A baseline fulfils different roles along the different stages of policy development**: evidence to inform strategic direction and goals-setting, support decision-making on the definition of targets and the definition of indicators, specification of support schemes, and required point of reference for monitoring and assessing progress and impact of the policy.

- Building on the ROAMEF policy cycle that the Green Book uses, we asked participants to consider how NC evidence was or could be used at different stages of policy development in agricultural policy in Scotland (see figure below).

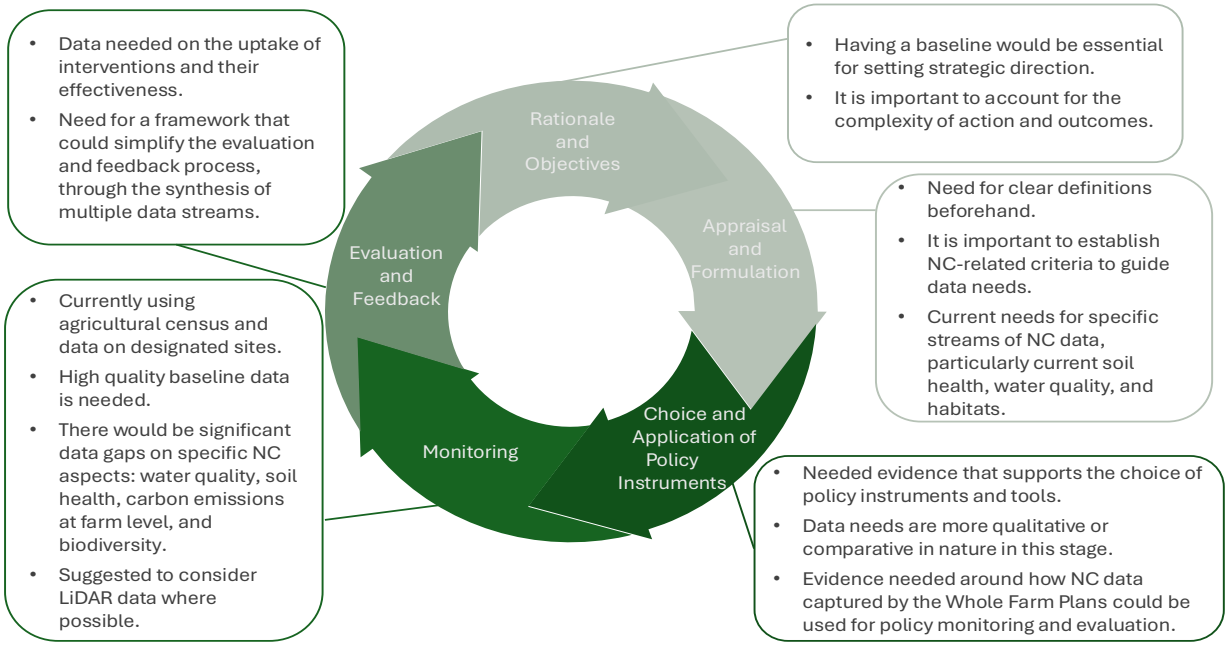


*Figure 1. How NC was seen by research participants as potentially relevant throughout the agricultural policy cycle.*

## Views on using NC-related evidence or tools in agricultural policy evaluation

- **NC-related evidence** was seen as particularly relevant for evaluating objectives related to pro-environmental goals (e.g. on-farm nature restoration, on-farm climate mitigation) or changes in the management of natural resources (e.g. regenerative agriculture). It was considered that NC might be **best integrated into policy evaluation as cross cutting evidence base**.
- The NC data identified by the participants in the agricultural policy cycle was varied and diverse in topic, source, scale, and scope. A range of specific NC aspects referring to regulating ecosystem services and aggregated ecosystem services were considered regarding data needed in the agricultural policy cycle: soil health, water quality, habitat, nutrients, biodiversity, vegetation, designated sites and carbon storage.
- We identified **four types of data gaps and challenges that need to be addressed** to establish adequate monitoring of all aspects of NC. These gaps and challenges depend on the clarity of metrics and methods needed to collect information; and the availability of that information to agricultural policy makers. Examples:
  - Water quality: Datasets already known to exist and it is 'only' a matter of adapting and integrating them.
  - Carbon emissions: Some data is expected to be available from the 'Whole Farm Plans'[1] (WFPs) but it might not be harmonized and there is no clear plan to use it.

[1] The Whole Farm Plans (WFPs) are aimed to provide a holistic view of a farm or croft by establishing their current performance and activities and it will condition access to agricultural support schemes. A WFP comprises audits and plans in five different topics that connect with NC: Animal Health and Welfare, Biodiversity, Carbon, Integrated Pest Management, and Soil Analysis. Current Scottish Government guidance on WFPs is available at Whole Farm Plan Full Guidance. The Scottish Government, Edinburgh, Scotland. https://www.ruralpayments.org/topics/all-schemes/whole-farm-plan/

- Soil health: Soil information needs were understood, but there was a need to collect the data.
- Biodiversity: The selection of indicators was reported to still be under discussion.

### Potential to incorporate existing data or tools related to NC into future agricultural policy development:

- In 2020 DEFRA began curating a **collection of datasets and tools for enabling a natural capital approach to help decision-makers, known as 'ENCA'** (Enabling Natural Capital Approach'). It is especially oriented to support decision making in the public sector, but not just for analysts supporting policy appraisal. However, despite being recommended by the UK Treasury's Green Book, **ENCA seems to be largely unfamiliar** to Scottish agricultural policy teams.
- Nevertheless, it was discussed that the ENCA toolkit would hold considerable **potential for supporting policy development**: it could support consistency across policies, offer valuable prompts for NC assessment, and provide lessons from previous initiative.
- **Capacity-building** about ENCA and sharing detail of its integration into real-life policy development would help to understand how to select and work with its tools; complemented by insights about what data are relevant to or additionally available for Scotland.
- In future, some simple farm-level data on Natural Capital will be generated by farmers and crofters who must complete WFPs in order to be eligible to access agricultural support schemes. However, although participants felt these data could be very helpful, many had concerns that it would not be accessible.

Overall, it seems that there is not yet a strong connection between NC and the practices of policy development. However, there are both opportunities and interest to do more.

## What are the implications?

NC-related evidence is judged as having potential to use in agricultural policy evaluation as a cross cutting evidence base for evaluating objectives related to pro-environmental goals (e.g. on-farm nature restoration, on-farm climate mitigation) or changes in the management of natural resources (e.g. regenerative agriculture). However, this may not happen without further intervention:

- Clear definition of NC indicators in monitoring and evaluation is needed; and then a plan of action to develop or access baseline data. This does not always entail new primary data collection: some relevant data are already available (but may be inaccessible at present).
- Existing tools such as the ENCA toolkit also hold considerable potential for supporting policy development but knowledge transfer and capacity building efforts are needed to make it possible.
- RESAS and research providers can provide expert support that can be used in agricultural policy development; policy-makers need to collaborate with them to identify opportunities to do so for specific tasks in different stages of the policy cycle.

## What are our next steps?

In the coming year we plan to discuss these ideas and other challenges and opportunities of embedding natural capital thinking into Scottish policy with staff working in other policy areas across the Scottish Government. We will do this in a transdisciplinary way, which means doing it with the people who know about and work on policy development. If you would like to know more about this study, please contact Kerry.Waylen@hutton.ac.uk

We are also aiming to support capacity building on ENCA with agricultural staff. We are organising an online knowledge transfer workshop to be delivered by experts in DEFRA that will take place in the second quarter of 2026. If you are interested in knowing more about this, please contact Karolina.Trdlicova@hutton.ac.uk.