Advancing sustainable agriculture using a common framework

ELMS Test & Trial 2023-2024

GLOBAL FARM METRIC

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Acknowledgements

We would like to thank the farmers who gave up their time to participate in our research, for their tolerance, expertise and good humour.

We are also grateful to our project partners — Soil Association Exchange, LEAF, BASIS Registration, the Andersons Centre and ABP — for their commitment to trialling the application of the Global Farm Metric framework. Their collaborative efforts, willingness to celebrate both communalities and differences and the sharing of insights into their diverse approaches have been invaluable. Their general alignment with and support for the GFM are an important first step towards a more sustainable food and farming sector in the UK.

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Introduction

This short summary report presents key findings from the Global Farm Metric's (GFM) Environmental Land Management Schemes (ELMS) Test & Trial, carried out in collaboration with Soil Association Exchange (Exchange), Linking Environment and Farming (LEAF), the Andersons Centre and BASIS Registration.

The trial explored the role of a common framework for measuring and monitoring farm sustainability holistically, engaging 26 farms across the UK between 2023 and 2024. Through GFM assessments, farmers and advisors explored ways to improve economic, social and environmental sustainability at farm level. This project answered the central question: How can a common framework for sustainability support the delivery and evidence the effectiveness of agri-environmental schemes like ELMS?

The UK has a wide range of certification programmes and sustainability assessments, each with distinct priorities and objectives, creating a complex landscape for farmers and stakeholders to navigate. This collaborative trial brought together key players in the sector to explore how different sustainability approaches can align, and to understand the benefits of a common framework.

The Sustainable Food Trust (SFT) has developed the GFM, a framework to define and measure shared sustainability outcomes across 12 interconnected categories. It supports understanding of holistic sustainability, while data collection based on the framework can help identify risks and trade-offs across environmental, social and economic indicators at farm-level.

For use within this trial, the GFM framework was translated into an assessment that provided a structured approach to data collection against its indicators. The aim for this trial was to test how this approach could inform and support the design of future ELMS schemes.

To explore this, 26 farmers completed the assessment and shared feedback on the following use cases for the framework:

- Understand sustainability holistically at farm-level
- Establish a sustainability baseline
- Identify areas on farm in need of support
- Monitor the efficacy of interventions
- Support farmers' learning and decision-making
- Provide a shared language for peer and value chain discussions
- Use in other agri-environmental schemes, in addition to ELMS

How can a common framework for sustainability support the delivery and evidence the effectiveness of agri-environmental schemes like ELMS?

Fig 1. GFM 2.0 (2025): updated based on trials, research and feedback. This trial used GFM 1.1 (2023). Explore framework development: globalfarmmetric.org.

Methodology and approach

Data collection

For this trial, two types of data were collected:

1. Farm data: The quantitative and qualitative data collected against the GFM framework using the GFM's proof-of-concept assessment.
2. Feedback data: Multiple touchpoints with farmers and farm advisors were built into the trial design, including pre- and post-assessment surveys, a follow-up workshop and semi-structured interviews were conducted with 22 participants. All feedback was coded and analysed to identify key themes.

Farmers and land managers from three partner cohorts (the Andersons Centre, LEAF, Exchange) completed a tailored version of the GFM assessment.

Approach to assessment

The Andersons Centre cohort used a pre-populated GFM assessment with Agrecalc data (pre-collected via ABP's PRISM 2030 Programme).

The Exchange cohort also used the GFM assessment, pre-populated with data collected by Exchange technicians, reviewed by trial participants.

The LEAF cohort integrated the LEAF Sustainable Farming Review (LSFR) and the GFM into one assessment.

To evaluate the impact of advisor support, the Andersons Centre's cohort was supported by an on-farm advisor. The LEAF and Exchange cohorts were supported remotely by trial facilitators.

Key findings

In this trial, the GFM assessment provided a clear and accessible overview of farm sustainability. This enabled evaluation of the areas where management practices have been successful in reducing risk to the farms' resilience, as well as areas that need to be prioritised to improve

APPROACH TO SCORING

Answers to each question in the assessment were analysed, then aggregated to generate scores (1-3) at indicator, subcategory and category level. These scores were then translated into sustainability ratings, visualised using a traffic light system:

- Green (higher sustainability / low risk to the farm's long-term sustainability): scores above 2.4
- Amber (moderate sustainability): scores between 1.8 and 2.4
- Red (lower sustainability): scores below 1.8

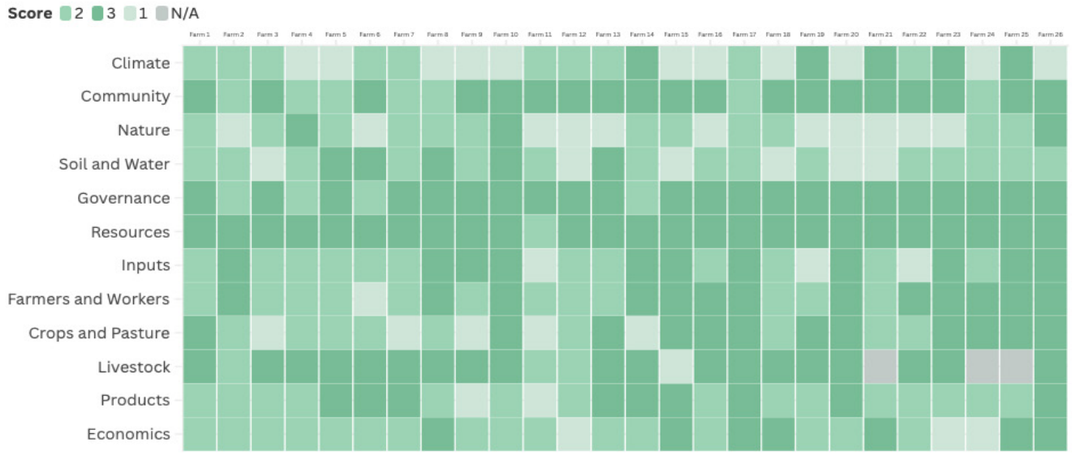
Farmers and advisors could view these sustainability scores across 12 categories, 35 subcategories and 50 indicators.

The heatmap below shows the scores of 26 participating farms across the 12 GFM categories. Each column represents one farm (numbered 1 to 26) and each row represents a GFM category. The shade of green shows each farm's score in each category.

High scores may also indicate that management practices undertaken in the years prior have had a positive effect. The positive effects may be seen within the high scoring category, but also across other areas of the system.

For example, in the Nature category, individual practices such as leaving spaces uncultivated were associated with benefits for both nature and soil quality.

Based on category scores, farms with more uncultivated land tend to have higher farm biodiversity (moderate association: R=0.38, p=0.06) and better soil quality (weaker association: R=0.29, p=0.17).



The farms included in this trial were already aware of and acting towards increased sustainability, which was reflected in the high scores achieved across many indicators: 48% of the 50 indicators in the assessment received a high sustainability rating. However, there is still scope for improvement with 16% of the indicators scoring low, while 32% scored moderately. A holistic approach to assessment can help identify these lower and moderate scoring areas to guide targeted action across the social, economic and environmental dimensions of sustainability.

It's important to note that 26% of indicators (13 of 50) were primarily influenced by external factors (e.g. weather, labour availability, land access) and 50% (25 indicators) were influenced by both on-farm and external factors. Only 24% (12 indicators) were largely within the farmer's control. Recognising the influence of factors beyond the farmer's control is key to interpreting sustainability scores fairly.

Contextualising results helps ensure that assessments reflect both what farmers can influence and the wider conditions shaping their outcomes. To support this understanding, the results section of the assessment provided participants with an overview table highlighting which indicators were within their control or responsive to management changes — helping to identify where interventions are most likely to have measurable impacts.

FROM INSIGHTS TO ACTION: THE IMPORTANCE OF FARM-LEVEL DATA

Farmers who completed the assessment reported increased awareness of their farm's sustainability performance. Interviews with 22 trial participants revealed that nine thought the assessment highlighted new opportunities for improvement, particularly in areas such as soil health, manure management and more responsible sourcing of inputs. Some also considered adopting new technologies and strengthening relationships with landowners.

Several trial participants expressed how, even if the process didn't necessarily highlight any new opportunities for improvements, it still made them pause and think about their farm practices in a way they hadn't before.

Four trial participants took concrete actions after completing the assessment, such as investments in infrastructure (like improved livestock housing and scales), succession planning, addressing soil compaction and staff training.

The usefulness of the assessments' results depends on the stage in the farmer's sustainability journey. The feedback suggested that it is most beneficial for those starting to learn more about sustainable farming. While farmers who have been managing their system sustainably for a longer time found the assessment and the results less immediately beneficial, they acknowledged its potential value for others.

> "I wish I'd had that opportunity five years ago because I might have started my thinking earlier."
>
> — Mixed farmer

ASSESSMENT LIMITATIONS & PARTICIPANT REFLECTIONS

Although beneficial in many ways, there were some challenges associated with the assessments used in this trial. Some trial participants felt the three-tiered scoring system lacked nuance and suggested incorporating a gradient or additional levels to better reflect progress or areas for improvement.

Other trial participants expressed frustration that key contextual factors, such as proximity to motorways, neighbours' practices and tenancy agreements, which limit their ability to make changes, were not recorded or considered in the assessment used in this trial. As a result, the assessment did not fully reflect the complexity of some farmers' individual situations.

External factors, such as extreme weather events, may have skewed some results — particularly soil health indicators. This issue was problematic because, during this trial, the assessment was conducted only once, which in some cases left participants feeling that the farm's sustainability was misrepresented.

Ten trial participants highlighted the importance of repeating the assessment over time to more accurately track progress and changes on farm.

THE NEED FOR A COMMON FRAMEWORK AND INDUSTRY COLLABORATION

Efforts were made to streamline the process of data-collection and pre-populate assessments within this trial. Still, many farmers expressed concerns about the burden of data collection, noting that the cost and responsibility currently fall on them alone. This highlights the importance of using pre-existing data sources, such as data already available to Defra, farm management software or carbon calculators to reduce duplication. Farmers stressed the need for greater alignment across the food and farming sector:

> "If we don't standardise it now — and DEFRA have a real responsibility and role here — then we're stuffed. It's as simple as that."
>
> — Beef and sheep farmer

A significant achievement of this trial has been uniting diverse stakeholders under a common framework and language, showcasing the GFM's potential scalability across the agricultural sector. By showcasing how initiatives like LEAF and Exchange adopted the GFM framework within their own approaches, we hope to encourage the agricultural sector to align efforts and work collectively to achieve sustainability goals, benefiting farmers, stakeholders and society as a whole.

IMPORTANCE OF ADVICE

Advisors played a crucial role in this trial, guiding farmers through assessments, ensuring accurate data collection and translating findings into actionable insights. They were given access to an online BASIS Registration training module, developed specifically for this trial. This equipped them with the necessary knowledge on holistic sustainability to support the participating farmers throughout the trial.

Advisor support made a clear difference in both participation and completion rates. Every farm (14 out of 14) that received on-farm support from an advisor started and completed the assessment — compared to just 12 out of 26 (46%) of those working with remote support.

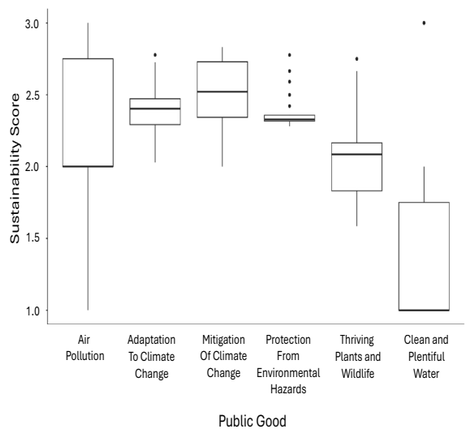
Three out of four advisors noted that farmers needed significant support to complete the process. This hands-on support also boosted completion of the more practical elements. Just two unsupported farms (17%) carried out the water quality assessment, while 12 supported farms (86%) completed it

The difference was even more striking for the air quality assessment: 100% of farms with advisor support completed it, compared to none of those without support.

SUPPORTING LOCAL & NATIONAL PRIORITIES: HOW THE GFM FRAMEWORK CAN UNDERPIN THE DELIVERY OF AGRI-ENVIRONMENTAL SCHEMES

The pre-assessment feedback survey found that 92% of participating farms are delivering one or more public goods. This was further supported by an analysis of the GFM scores through a public goods lens (see chart below for participating farms' delivery of public goods). It also confirmed that GFM assessments can provide meaningful insights into the delivery of public goods, in line with the UK Government's agricultural policy direction following Brexit.

Fig 3. Box and whisker plot showing assessment scores relating to varying public goods.



A desk-based study carried out during this trial found that most Local Nature Recovery Strategies (LNRS) set ambitious goals that go beyond environmental recovery.

LNRS often include improving community well-being as well as health and economic benefits by integrating initiatives such as green prescribing, job creation in green industries and eco-tourism. Despite these aspirations, many local authorities and their LNRSs lack detailed plans for monitoring progress and integrating broader economic (referenced by 41 out of 48 local authorities) and social dimensions (referenced by 33 out of 48 local authorities).

These findings suggest that a common framework like the GFM could support the delivery of local strategic priorities, like LNRSs.

By offering a standardised approach to addressing environmental challenges alongside socio-economic outcomes, the GFM can help bridge the gaps in scenario planning, monitoring and balancing conservation with agricultural productivity.

This can offer a holistic approach that aligns environmental recovery with the socio-economic sustainability of farming communities, recognising the interconnectedness of climate, nature and society. Local authorities can guide land-use changes that support both nature recovery, resilient agricultural systems and communities, laying the foundation for long-term environmental and societal resilience. This can effectively translate national policy into local action.

Trial participants also emphasised that assessment data could provide policymakers with critical insights into the current state of farm sustainability. When aggregated at a landscape or regional level, this data can help identify wider systemic issues, such as gaps in essential infrastructure, like the availability and accessibility of local abattoirs.

> "The more data there is, the easier it is for somebody to sit in a meeting and say look here are 3000 farms that can't now actually reach abattoirs in a sensible space and time or cost."
>
> — Beef farmer

This reinforces a key message from this trial: some factors that influence a farm's ability to deliver sustainability outcomes are beyond the farmer's control. Systemic issues can limit progress at farm-level and the responsibility for change should not fall on farmers alone.

FROM FIELD TO EVIDENCE: MONITORING IMPACTS OF AGRI-ENVIRONMENTAL SCHEMES

The trial found the application of the GFM framework enables robust monitoring of long-term impacts of agri-environmental schemes by tracking key outcomes-based indicators such as soil health, biodiversity and water quality.

This was particularly important to trial participants, who want to see and share evidence that their actions are making a difference. By providing consistent, farm-level data, the GFM can help demonstrate that agri-environmental schemes are delivering value for money and achieving their intended environmental and policy goals.

However, participating farmers also highlighted that data from one-off assessments are insufficient to capture the full complexity of farm performance. They stressed the need for repeated data collection over time to account for seasonal variability, weather events and other external influences. By building a longitudinal dataset, farmers and policy makers can gain a more accurate and meaningful understanding of farm performance and the long-term impact of agri-environmental schemes.

CONCLUSION

The trial has demonstrated the value of a harmonised sustainability framework in UK agriculture. Farmers and advisors responded positively to the holistic approach, while recognising areas for refinement at assessment level. To maximise impact, the burden of data collection must be addressed, financial incentives for sustainability baselines and monitoring must be introduced and advisory support must be provided. By embedding a holistic framework into agricultural policy and industry practice, the UK can lead the way in sustainable farming, ensuring resilient, productive farms for generations to come.

Our recommendations for Defra

The findings from this trial informed five recommendations, focusing on reducing barriers, fostering collaboration and ensuring fair rewards for farmers, with the aim of driving a harmonised approach to farm-level sustainability across the agricultural sector. These recommendations are supported by LEAF, the Andersons Centre, Exchange and the GFM.

1. ## Commit to the implementation of a standardised framework for understanding, measuring and monitoring farm sustainability holistically
   Allocate resources and funding to further develop, implement and scale a harmonised sustainability framework across farms in England and the rest of the UK, moving beyond voluntary collaboration to a sector-wide initiative.

2. ## Invest in farm-level data to enable evidence-based agriculture
   Provide funding to support farmers establishing sustainability baselines and carry out regular monitoring. This is essential for informed decision-making on-farm and for evaluating the true impact of agri-environmental schemes across the country.

3. ## Address the burden of data collection
   Both the government and the supply chain must recognise and mitigate the significant burden that data collection places on farmers. Ensure assessments are practical, user-friendly and supported by trained advisors. Leverage existing datasets and digital tools to avoid duplication and simplify the process for farmers.

4. ## Ensure fair rewards for farmers
   Recognise and fairly compensate farmers for the public goods they deliver, and also for the time, knowledge and data they contribute. Payments should reflect the real value of farm-level insights to national policy and environmental outcomes, as well as acknowledge the limits to achieving sustainability outcomes due to factors beyond their control.

5. ## Strengthen and provide advisory support
   Invest in the training and development of farm advisors to ensure they are equipped with the knowledge and tools to guide farmers through sustainability assessments and the transition to sustainable farming systems. Crucially, make advisory services freely available to farmers by providing long-term public funding. Accessible advice is essential to help farmers navigate change, reduce risk and deliver meaningful environmental outcomes.

NEXT STEPS

We've launched GFM 2.0 — an updated version of the GFM framework shaped by farm trials and wider research. Over the coming year, we'll continue working closely with the governments of the devolved nations to explore how the GFM can support policy, finance, procurement, education, and True Cost Accounting.

Ongoing trials, research and stakeholder input will ensure the framework remains grounded in evidence and aligned with real-world needs.

GET INVOLVED

- Discover how the GFM can support your work
- Sign up for updates via our newsletter and socials
- Join a working group to shape the future of the framework
- Get in touch to discuss trials or collaborations

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"I just thought it was interesting to see how all these things connect really, my farm with everything else. It seemed interesting to see in a bigger scheme, not just my farm, other people's farms and everyone else in the local area." — Beef farmer

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