GFM 2025

Inside the framework

GLOBAL FARM METRIC

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Acknowledgements

This work is the result of collaboration and contributions from a wide range of people and organisations in food and farming.

We would like to take the opportunity to say a huge thank you to the farmers and partners who contributed to the development of the Global Farm Metric.

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Executive summary

The Global Farm Metric (GFM) is a practical, outcomes-based framework for whole-farm sustainability. This report introduces the next iteration of the framework, GFM 2.0. Shaped by trials, research and consultation, it enables alignment, supports systems change and drives positive outcomes for nature, climate and people.

As the world faces the intersecting challenges of climate change, biodiversity loss and food insecurity, the need for holistic, collective and farmer-centred sustainability solutions is greater than ever.

The Global Farm Metric (GFM) is a common framework to define and measure whole-farm sustainability. Its outcomes-based approach enables global alignment and collaboration to achieve shared sustainability goals, while respecting local context.

The GFM addresses some of the key barriers preventing farmers from producing food, fuel and fibre in ways that deliver positive outcomes for nature, climate and people.

The framework can be used **directly** — to build knowledge — or be **applied** to existing initiatives and sustainability assessments — to support measurement that drives and monitors systems change. This establishes a shared understanding, vision and goals that enables food system actors to work together and track progress, reward positive outcomes and drive meaningful change from the ground up.

Adoption of the GFM will help to transform our food and farming systems from being part of the problem to part of the solution; nourishing and restoring the health of people and planet.

This report details the evolution of the framework and its technical grounding, providing an in-depth explanation of its development. This update follows GFM1.1 (released in January 2023). UK and international trials, research, and consultation with food system stakeholders have all informed the development of the framework's outcomes, categories and subcategories, which are explained alongside key concepts and changes.

KEY DEVELOPMENTS OF THE FRAMEWORK INCLUDE:

- Sustainability outcomes for each category
- Contextual factors
- Subcategory definitions and descriptions
- Increased applicability to diverse farming systems
- Clearer logic and coherence
- Deeper harmonisation with international frameworks
- Articulation of our approach to sustainability perspectives and values

From farmers and advisors, to retail, policy and finance, the power of the framework to drive change lies in collective action.

To use the framework and find out more, follow us on socials, visit the website or get in touch:

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History of the GFM

Since 2012, the Sustainable Food Trust has worked to expose the true costs of food production and drive the transition to more sustainable farming. The Global Farm Metric emerged as a unifying framework to support this shift – providing the clarity, alignment and tools needed to inform policy, investment and on-farm action worldwide.

Since 2015, the Sustainable Food Trust (SFT) has been spearheading international work on True Cost Accounting (TCA). This work aims to reveal the hidden costs of unsustainable food production and highlight the value of sustainable food and farming systems for climate, nature and people.

With harmful practices costing the public purse up to £116 billion each year, the SFT has called for a transition to farming systems that reward the delivery of public benefits and penalise pollution (Fitzpatrick et al, 2019). However, in the absence of a consistent means of measuring and rewarding these benefits, meaningful change has remained out of reach.

In 2017, the SFT formed its Farmers Working Group to explore and tackle the key barriers to TCA and sustainable land management — including economic disincentives, conflicting information and duplicative measurement. Recognising the transformative role that measurement can play in solving these challenges, the group supported the testing and review of existing agricultural sustainability assessments (Mullender, Smith and Padel; 2017).

The results highlighted two key challenges, which are slowing change from the ground-up. First, most defintions and assessments of farm level sustainability are narrow in scope and lack a holistic approach. Second, sustainability frameworks typically operate at landscape level, making them impractical for measuring on-farm sustainability. In response to these findings, farmers and researchers agreed on the need to harmonise and expand farm-level sustainability approaches.

This agreement was shared by a broad coalition of food and farming stakeholders who collaborated to develop the principles of the GFM, previously known as the Harmonised Sustainability Assessment Framework.

Initially created through alignment of existing assessments, the GFM was designed not just as a measurement tool, but as a common framework to support farmers, guide systems change and align the sector.

Today, the GFM has been tested by over 500 farmers across 23 countries and continues to be co-developed with partners ranging from cooperatives and NGOs to governments and global retailers. It supports peer-to-peer learning, farm advisor training and underpins policy, investment and sustainability assessments.

Critically, it is influencing financial and policy decisions across the sector — making the hidden costs of production visible and driving the transition to more sustainable farming.

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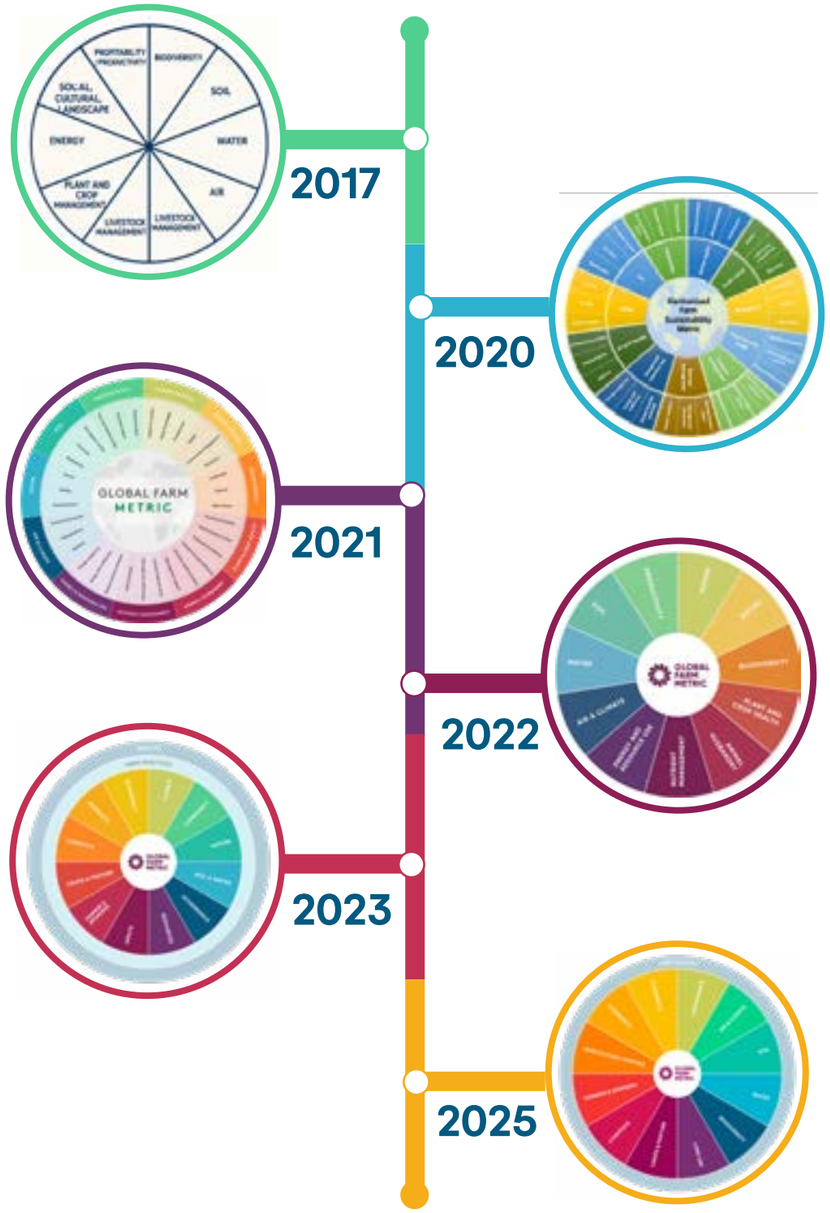
GFM wheel development

Since it was first designed in 2017, the GFM wheel has been evolving through collaboration, trials and research.



Trials, testing and research

Since the launch of GFM1.0 in January 2023, we have completed two years of development with farmers and farming stakeholders in the UK and overseas. This work has been supported by academic research and testing of diverse applications of the framework — including in assessment, evaluation, education and alignment.

RESEARCH

Our work is grounded in over a decade of extensive research, expert consultation and development, building scientific robustness and credibility. Research activities include comparing and mapping existing frameworks, as well as contributing to scientific research and literature. This research has been documented through SFT- and GFM-published articles, with a peer-reviewed paper in progress. As a result, the GFM has been cited in more than 50 publications, including academic articles, online communications and reports, such as The National Food Strategy.

Over the last three years, we have conducted over 75 scoping reviews of farm assessments and extracted over 1700 sustainability indicators for evaluation, as well as carrying out an extensive Delphi review, which engaged experts in the evaluation of on-farm biodiversity indicators (Arguile et al, under review). This work built on a 2017 review of major farm sustainability tools (see 'The History of the GFM', above; Mullender, Smith and Padel, 2017) and highlighted the need for harmonisation of the understanding and assessment of sustainability on farms.

The research we have carried out has been used to position, design and strengthen the GFM framework. With improved relevance and robustness, the findings are helping to drive industry-wide alignment on more outcomes-based and holistic measurement of sustainability at farm level.

EDUCATION

Trials and consultation have highlighted the GFM's potential as an educational tool to expand and align understanding of farm-level sustainability.

This has been explored across different audiences and levels of expertise, from the development of an online BASIS course for farm advisors to the creation of educational resources for primary schools.

The framework provides a clear overview of the whole farm system to build learning materials around. Its structured and comprehensive format makes it a useful tool for exploring complex interconnections; helping learners to adopt systems thinking and gain clarity on the different elements of sustainability.

The application of the GFM in educational resources also revealed some challenges. In particular, translating the framework into accessible, engaging content suitable for different audiences required specific expertise in communication and education.

As a result, we will develop guidance and resources to strengthen the GFM's ability to support learning. This will be tested in education projects, including the development of post-graduate courses.

ASSESSMENT

Farm trials, delivered in close collaboration with farmers, researchers and supply chain partners, have been crucial in strengthening the practical value of the GFM framework. Typically, these trials require farmers to collect data for a whole-farm sustainability assessment, using the GFM Research Tool or a similar tool aligned with the GFM categories, subcategories and indicators to ensure consistency and comparability across contexts.

Between 2023 and 2025, ten applications of the framework have been tested on more than 240 farms across 23 countries and six continents; from South American smallholdings to European dairy farms and large-scale Australian operations. As a result, the GFM has evolved to better reflect the diversity of farming systems across different agricultural contexts.

The trials have confirmed the global relevance and practicality of the GFM, as well as its ability to drive positive change. At ground-level, holistic assessment data collected through GFM trials has sparked sustainability conversations, guided practice change and shown strong potential as a foundation for investment. As a one-off, assessments have offered a snapshot of current sustainability performance and been used to underpin advice from farm consultants and highlight opportunities for practice change. When assessing over time, farmers have valued the ability to monitor progress towards farm goals. Shared more widely, trial partners have reported that the data shows promise for enabling the evaluation and reward of positive outcomes delivered by farms.

Trials also highlighted the importance of maintaining alignment at outcome, category and subcategory levels, while allowing adaptation in data collection methods (for example, satellite data versus manual testing) and metrics, according to local contexts (such as using earthworms as biodiversity indicators in the UK and termites in the Amazon). This enables the nuances of different systems to be captured, while retaining a consistent core structure for measuring sustainability.

Using the framework to align trial data, we are currently aggregating and analysing results to explore sustainability trends. This includes analysis of the benefits delivered by different farm systems and identification of trade-offs and unintended consequences.

'The detailed nature of the assessment revealed areas of my farming practices that I hadn't previously considered, highlighting the importance of a comprehensive approach to sustainability.'

— South African farmer, Regen10 trials

While this research is primarily for internal exploration, it demonstrates the potential for holistic data to build a robust and verifiable evidence base capable of challenging misconceptions about sustainable farming and building evidence for informed policy-making.

Qualitative insights from trials have confirmed the feasibility of collecting data across all GFM categories, as well as highlighting barriers such as time, cost and complexity. These issues were found to be less problematic in trials that employed advisor support, had strong technical solutions and/or provided financial incentives. Some partners have also expressed concern around the complexity of the framework, which can limit its applicability in existing initiatives and the creation of shared sustainability goals. This feedback demonstrates the importance of both framework clarity and effective trial delivery in successful and useful data collection.

As a result of the findings from trials, the GFM has been updated to include outcomes and to improve its clarity, guidance and adaptability to diverse farming systems worldwide.

MAPPING

The GFM can be used as a common reference point for structuring comparison and evaluation exercises across sustainability tools, audits and certification schemes.

Serving as an overarching framework, the GFM has helped to bring clarity and encourage alignment across a fragmented landscape of sustainability approaches.

The holistic nature of the GFM has proven particularly valuable in identifying gaps and evaluating the coverage of existing data collection initiatives. By comparing existing tools against the comprehensive GFM framework, stakeholders were able to pinpoint where key aspects of sustainability were being overlooked. This process has not only highlighted potential blind spots — where unintended consequences may go unmonitored — but also identified opportunities for improvement and innovation in existing systems.

Feedback from organisations and researchers using the GFM in this way has been actively gathered and analysed. While the holistic scope of the framework is widely valued, some inconsistencies have been identified in the underlying logic, particularly regarding the distinction between contextual factors and those within the farm's control.

To support the GFM's application in both research and practical decision-making, these insights have directly informed the development and refinement of the framework, leading to better integration of contextual factors and improvements in consistency.

CASE STUDY: COMPARISON AND COLLABORATION

The Scottish Agricultural Organisation Society (SAOS), with support from the Scotland Food & Drink Partnership, used the GFM framework to map and analyse quality assurance schemes across Scotland's food and drink sectors.

One of the key reasons for using the GFM was its alignment with the Sustainable Development Goals (SDGs), being relevant to and supportive of 16 of the 17 SDGs. While the GFM has been designed for on-farm application, the framework was also relevant to non-land-based industries, including seafood and aquaculture, and to downstream supply chain activities, such as haulage, markets and processing.

The findings uncovered a complex web of frameworks, highlighting the array of sustainability factors considered across these schemes. Gap analyses revealed areas of alignment in commonly monitored aspects such as soil biota, structure and organic matter, as well as animal health and welfare. It also highlighted gaps less frequently assessed within certification schemes, such as emissions.

The results of this analysis will be used to foster collaboration within Scotland and drive positive change for sustainability.

The findings uncovered a complex web of frameworks, highlighting the array of sustainability factors considered across these schemes.

ALIGNMENT

The GFM has been proved to be effective at aligning diverse stakeholders around a common understanding of farm sustainability.

Used to articulate priorities and structure conversations, it offers a shared language that is relevant to farmers, the value chain and other partners.

As an example, the framework has played a valuable role in initiatives like Regen10, which seeks to create a shared vision — or 'guiding star' — for regenerative agriculture. Organisations such as Neal's Yard Dairy have also used the GFM to structure internal and external communications around sustainability.

While high-level alignment around outcomes is achievable, challenges have arisen when translating these shared goals into methods, metrics and priorities. These experiences reinforced the value of the GFM as a starting point for collaboration — capable of building consensus at a strategic level — while highlighting where further work is needed to resolve differences in approach or emphasis.

In response to these challenges, further guidance and clarity around the use-cases and applications of the framework have been developed. Alongside deeper harmonisation with existing initiatives, outcomes have been included to better establish a common language for sustainability that can unite a diversity of stakeholders around shared goals.

CASE STUDY: DRIVING ALIGNMENT

The GFM is playing a key role in fostering greater alignment across the food and farming sector. In our recent Defra ELMS Test and Trial, run with LEAF, the Soil Association Exchange (Exchange), the Andersons Centre and BASIS, the framework enabled cross-sector understanding and cooperation.

The trial explored the value of a shared approach to understanding, measuring, monitoring and communicating sustainability at farm and landscape levels. While differing organisational aims and the cost of transition can slow alignment at the data-point level, the GFM provided a common reference point that allowed actors to align approaches, assessments and certification schemes in principle, without undermining existing structures.

Project partners agreed on the need for a holistic framework to better align existing metrics across the sector. Exchange is continuing to work with the GFM team to increase alignment across its approach and platform. LEAF also recognised the long-term value of a holistic approach and is exploring ways to incorporate outcomes-based metrics in the LEAF Marque Standard.

As demand for high-integrity, standardised data continues to grow, the GFM is laying the foundation for a more joined-up, transparent and collaborative approach for measuring sustainability across the food and farming sector

"The framework establishes a common language. This creates opportunities for global learning, allowing insights to be shared across borders to strengthen farmers' resilience in a changing climate."

– GFM 2025 Trials report

globalfarmmetric.org/reports

Changes since GFM1.1

As a result of the trials, testing and research detailed above, we have developed and released the new iteration of the framework; 'GFM2.0'. Its underlying principles remain unchanged, with development focused on structural and conceptual refinements to improve integrity, coherence and usability. See Appendix A for detailed changes.

CLARITY

The GFM has been refined to improve its logic and accessibility. Simplification has been central to this evolution: unnecessary complexity and redundancies have been removed, language has been aligned, and guidance has been strengthened to improve usability and ease interpretation. While the framework has been simplified, its development remains grounded in extensive research and critical reflection. We recognise that while farm sustainability is inherently complex, simplification is key to strengthening understanding of and engagement in sustainability and driving action.

Several categories have been renamed or reorganised for clarity. For example, 'Nature' has become 'Biodiversity' to distinguish it from 'Soil' and 'Water' and to better reflect its focus on species diversity across the whole farm, including areas of productive land. Infrastructure and equipment, previously grouped under 'Resources', are realigned under 'Land Use' and 'Agricultural Supplies', respectively, reflecting their differences in physical characteristics and associated impacts.

Categories like 'Practices' and 'Farm Outputs' have become part of the guidance that supports the application of the framework in assessment. This keeps the focus on the most relevant farm-level factors for sustainability and strengthens the GFM's role as an educational tool, helping to explain whole-farm sustainability and extending its use beyond assessment.

Similarly, subcategories have been made more granular and directional (see Outcomes and values below). For example, 'Soil' and 'Water' now have a sharper focus on key sustainability aspects, while economic and social dimensions have been strengthened to better capture a fuller picture of viability and equity. 'Agricultural Supplies' now follows a life cycle approach to align with academic practice and reporting standards, helping to track environmental impacts across production stages.

Furthermore, to support consistency in how sustainability is understood, clear definitions, explanations and examples are now included. These help users — from farmers to policymakers — to understand key parts of the farming system, why they matter and how they connect to sustainability outcomes.

Together, these improvements facilitate translation, strengthen content and reduce the risk of misinterpretation. This allows for more confident and wide-spread use of the framework and helps build a shared language for on-farm sustainability, enabling broader adoption and more effective collaboration across the food system.

SOCIAL

The social aspects of the framework have been significantly strengthened to better reflect the lived experiences of farmers, workers, and their communities. By expanding beyond technical metrics to include equity, wellbeing, inclusion, and cultural engagement, the framework recognises that sustainability must be people-centred to be effective.

Social conditions - such as fair decision-making, safe working environments, inclusive representation and access to learning - are not just enablers of sustainability but fundamental outcomes in their own right. Governance now explicitly addresses how decision-making, farm values, and management structures can either support or hinder these outcomes. Transparent and inclusive governance practices build trust, reduce conflict and help align farm operations with legal and public expectations for fairness and ethical responsibility.

In addition, the framework highlights how farms act as anchors within their communities - providing employment, sharing resources, exchanging knowledge and maintaining cultural ties. These roles go beyond economic activity to encompass social resilience and local wellbeing. These are captured in subcategories such as demographic representation, health and safety and wellbeing.

Recognising this broad spectrum of social dynamics enables assessment of how farms contribute to vibrant, just and resilient rural systems. In doing so, the framework not only supports better on-farm conditions but also fosters stronger rural economies, wider engagement in food production and more equitable farming systems.

Context recognises there are factors that affect the farm's ability to deliver positive outcomes.

Change requires all farming stakeholders to act.

CONTEXT

The GFM now identifies key contextual factors — such as weather, soil type, land tenure and socio-political influences — which are beyond a farmer's control but significantly influence their ability to deliver sustainability outcomes. While not exhaustive, recognition of these factors supports fairer assessments and generates more meaningful insights.

By taking context into account, the framework can support assessments that better reflect the barriers and enablers that farmers face in delivering positive outcomes, acknowledging that there are limits to what can be achieved. For example, a farm in an arid region may appear less sustainable based on water use alone, but contextual data can reveal if the farmer is using water efficiently given local climatic and environmental conditions. This can enable fairer comparisons and more useful insights, adapted to local context.

Aggregation of context-sensitive results enables more accurate benchmarking and the communication of landscape-scale trends grounded in real-world farming systems. This can underpin the design of more nuanced, effective and evidence-based interventions that direct support and incentives to where they are needed most. For instance, contextualising biodiversity assessments through local land use history can support both on-farm actions, like tree planting, and wider landscape regeneration efforts, such as improving habitat connectivity.

As the global food system faces mounting and varied pressures — from climate change to political and economic instability — the ability to integrate relevant contextual information is crucial for guiding a just and effective transition to sustainable agriculture.

HARMONISATION

The GFM has been developed with a strong emphasis on harmonisation with existing frameworks, standards and initiatives. Alignment builds credibility and bridges the gap between farm-level initiatives and broader global and landscape frameworks, enabling greater coherence across scales. This drives momentum towards wider sustainability efforts, such as the FAO's Sustainability Assessment of Food and Agriculture Systems (SAFA), the Sustainable Development Goals (SDGs), the Taskforce on Nature-related Financial Disclosures (TNFD) and international certification schemes.

Recent refinements have strengthened the GFM's alignment with academic approaches. For example, the 'Agricultural Supplies' subcategories now highlight each stage of an input's journey, from sourcing to usage and disposal. As well as enabling deeper understanding of the farm's potential impacts, this can underpin data collection for Life Cycle Assessment (LCA) and support more comprehensive measurement of sustainability.

Furthermore, the simplification and alignment of the framework facilitates the mapping of initiatives back to the GFM. This process helps evaluate and compare initiatives, highlighting which components of the farm system are addressed and how holistic their scope is. For example, mapping a carbon assessment to the GFM may reveal missing sustainability dimensions, such as social, economic and ecosystem health.

The Global Farm Metric strengthens alignment across sustainability frameworks—bridging farm-level action with global goals.

Identifying such gaps can encourage more integrated and holistic approaches — for instance, complementing a carbon footprint with a biodiversity assessment. Mapping may also reveal overlaps in data requests, such as livestock inventories, which can help to reduce data collection duplication, save time and improve consistency in reporting.

Through harmonisation, the GFM facilitates greater integration into reporting and decision-making processes for farms, researchers, supply chains and policymakers. Next steps include developing more detailed guidance to support cross-referencing and systematic identification of gaps and overlaps. We will continue to work closely with industry leaders to align and expand scope where necessary, driving collaboration towards shared goals.

OUTCOMES AND VALUES

Each category is now anchored by a defined outcome; a short statement specifying the environmental, social and economic goals to be achieved in a truly sustainable farm system. The development of these outcomes has been informed by scientific research, stakeholder collaboration and alignment with international policy and existing initiatives (see page 10–13).

Building on the approach of GFM1.1, which defined outcome-indicators for long-term monitoring, this refinement brings greater purpose and transparency to each element of the framework and offers a clearer, more intuitive way to engage with sustainability which supports systems thinking, goal alignment and collective action.

Focused at farm level, the outcomes are linked to broader sustainability goals and the farm's ability to contribute towards a stable climate, resilient ecosystems and healthy people. The outcomes are designed to define what sustainability looks like within each category of the framework, rather than focusing on what services the category can provide on and off the farm. For example, in the 'Water' category the emphasis is on maintaining a healthy water system, not on the role of water in crop production (although producing good crops will be a positive consequence of a healthy water system).

The category outcomes guide the selection of relevant subcategories and indicators, helping to focus the framework on the core elements needed for a sustainable system. For example, if the 'Water' category only focused on the volume of water held on a farm, critical aspects like its source and usage would be overlooked. Setting a clear outcome — such as "water is clean, abundant, sustainably sourced and used efficiently" — allows for the development of more targeted subcategories and indicators.

To support the application of the framework in assessments, outcome-based indicators are defined. These are designed to enable measurement that tracks change over time. Unlike practice-based approaches, which risk being overly prescriptive and can overlook individual farm contexts, outcome-based indicators focus on how responsive a system is to change and how effectively farm practices deliver benefits to individuals, communities and ecosystems in the long-term.

That said, practice-based indicators still play an important role in building an evolving picture of the farm, offering a quick and cost-effective assessment of directionality in the short-term (Schreefel et al., 2024).

While the outcomes aim to be universally applicable, we recognise that different stakeholders will have different priorities – including economic, social, moral and spiritual considerations (Gunton et al., 2022). For example, depending on the setting, biodiversity can be valued in terms of its ecological role, as well as its spiritual and cultural significance, or its ability to be monetised (Gunton, 2022). Moreover, the framework itself will inevitably be influenced by the socio-economic and political context in which it has been developed; biases which we have sought to offset through extensive testing, collaboration and alignment.

The GFM embraces this plurality by designing outcomes that align goals at scale while supporting and complementing local objectives and priorities. As with the integration of contextual factors (see Context above), a one-size-fits-all model is avoided by encouraging adaptation to local context. This allows assessments to be locally tailored, while contributing to a broader, consistent evaluation of progress towards common outcomes.

The 'Biodiversity' category highlights key areas – such as wildlife, soil, water, crops and livestock – where species diversity is essential for sustainability. It encourages monitoring tailored to the local environment, allowing for relevant targets (e.g. protecting a culturally important species) while working towards shared outcomes as defined by the GFM. This balance supports alignment across diverse stakeholders while respecting local priorities.

Looking ahead, we will explore the expansion of outcomes across intersections between categories – such as addressing soil-derived pollutants affecting water quality – and across system-level properties – like ecosystem resilience. But for now, we have kept outcomes simple, specific and category-focused to support clarity, learning and alignment. We recognise that sustainability is inherently a value-based judgement, and we will continue to evolve the GFM in recognition of this complexity, through meaningful conversations and

Considerations and limitations

The GFM offers a structured and holistic approach to understanding and advancing sustainability on farms. However, no single framework can capture every aspect of a complex, dynamic farming system. Below are key considerations to keep in mind when using the GFM.

A STARTING POINT FOR COLLABORATION: Testing has confirmed the GFM's value in building high-level consensus around outcomes but also highlighted challenges in translating shared goals into consistent methods, metrics and priorities. The GFM acts as a strong starting point for collaboration, but negotiation and further research is often required to apply it in practice.

VALUE-BASED JUDGEMENTS: While outcomes provide clarity and focus, the GFM recognises that sustainability is partly a value-based judgement. Despite its grounding in science and global goals, some prioritisation and inherent biases remain. Transparency about these choices is crucial, as measurement shapes how sustainability is understood.

CONTEXT AND RESPONSIBILITY: Fair assessments require the integration of contextual factors. Care must be taken to avoid placing undue responsibility on farmers for external conditions beyond their control.

SCOPE AND EXTERNALITIES: The GFM offers a holistic view of farm-level sustainability but does not capture all externalities or downstream impacts. Expanding its scope in these areas would require additional modelling. Maintaining a clear, farm-focused scope is currently a strength, though future trials will explore scaling to wider impacts.

COMMUNICATION AND USABILITY: Using the GFM for educational purposes requires communication expertise. Ongoing work is needed to create accessible, engaging materials for different audiences, with a focus on clarity, usability and equitable engagement.

DATA COLLECTION BURDEN: Collecting comprehensive sustainability data can be time-consuming, costly and complex. While technology can help, guidance and support are needed from assessment providers and the supply chain to reduce the burden on farmers when the framework is applied in an assessment.

INCLUSIVE TESTING AND EVOLUTION: Further testing in under-represented regions and with diverse stakeholder groups is essential. Ongoing research, knowledge-sharing and resource development will support equitable engagement and ensure the GFM evolves as a robust, inclusive tool.

Components of the framework

The framework is comprised of categories, outcomes, subcategories, context and indicators. It is designed to capture elements that are key to social, economic and environmental sustainability. The GFM can be used to facilitate learning, mapping, evaluation, farm-level data collection and more.

CATEGORIES

There are 12 categories which represent key parts of the farm system where sustainability impacts occur. They are holistic, covering the social, environmental and economic dimensions of the farm. All categories are interconnected and interdependent, meaning one category cannot be considered in isolation.

The categories can be grouped to tell the story of the farm. For example; 'Governance' captures the decisions and management practices that shape how the entire farm operates. This is followed by the natural systems that underpin farming — 'Air and Climate', 'Soil', 'Water' and 'Biodiversity'. The framework then considers what products are produced — including 'Livestock', 'Crops and Pasture' — and what resources (in addition to natural systems) are needed for production, including 'Land Use', 'Farmers and Workers', 'Agricultural Supplies', 'Community' and 'Economics'.

OUTCOMES

Each category defines the shared outcomes to be achieved in a truly sustainable farm system. These outcomes are applicable across all farming systems and contexts and sit alongside the unique goals of individual farms and the wider farming system. They do not prescribe practices but serve as a guiding star for what needs to be achieved to protect nature, climate and people.

SUBCATEGORIES

Subcategories break down the categories into key areas that affect the delivery of shared outcomes. These show the areas to focus on when using the framework to track progress towards the achievement of outcomes.

INDICATORS

Indicators translate sustainability outcomes into measurable signals of progress.
They provide the evidence needed to assess how well a farm is performing against each outcome, helping to turn the GFM framework from a shared vision into a practical tool for monitoring and improvement.

CONTEXT

The framework identifies contextual factors, recognising that each farm sits within its own unique context. These factors, which are beyond the farmers' control, affect the farm's ability to deliver sustainability outcomes, highlighting that the burden of responsibility for change should not sit with farmers alone.

The categories, outcomes, subcategories and contextual factors are described below. Indicators are defined in an upcoming report: globalfarmmetric.org/reports.

The GFM2.0 framework

The following tables describe the categories, outcomes and subcategories of GFM2.0. For definitions, see Appendix B.

CONTEXT

Contextual factors consider the barriers and enablers that are beyond the control of the farmer and affect the farm's ability to deliver sustainability outcomes.

Subcategory	Description
Geology and topography	The land's physical characteristics, including soil type, elevation and natural and built features. These characteristics influence aspects like water drainage, erosion and potential uses of the land.
Environment and ecology	The condition of the ecosystems surrounding the farm, including off-farm biodiversity, air pollution and water quality. The health of the environment outside the farm influences on-farm ecosystems and can impact productivity, soil fertility, pest control and water resources.
Climate and weather	The weather patterns, conditions and climate, including temperature, rainfall and wind, as well as the occurrence of irregular and extreme weather events. These aspects affect water availability, crop yields and ecosystem stability and can disrupt and damage farming operations.
Agricultural supplies	Inputs (e.g. fertilisers and seeds), materials (e.g. for packaging, construction, protection and maintenance), equipment (e.g. tractors, irrigation, milking machine, plough), infrastructure (e.g. energy, technology and transport networks) and services (e.g. vets, suppliers and advisors). The accessibility, condition and availability of these supplies can impact the adoption of sustainable farming practices, as well as efficiency and productivity.
Society and culture	Local traditions, values, societal structures and the degree of community support that a farm receives. This shapes land use, approaches to sustainability and knowledge and resource sharing.
Regulation, law and policy	Local, national and global legislation, from agricultural subsidy systems to trade laws. These and their underpinning ideology govern land use, environmental protection, labour rights and farming practices.
Economics and finance	Market demand, cost structures and financial allocation. Access to affordable capital and fair pricing can support sustainable production, while market pressures may encourage short-term practices that undermine long-term sustainability.

GOVERNANCE

Outcome: Farm governance is equitable, inclusive and respects traditional knowledge. Decision-making — whether formal or informal, hierarchical or cooperative — prioritises transparency, fairness and shared responsibility, empowering all stakeholders to contribute to social, environmental and economic outcomes.

Subcategory	Description
Decision making	The way decisions are made on the farm, including who is involved and how. Inclusive decision-making improves outcomes, builds trust and empowers farmers and workers; it strengthens rural communities, encourages fair working environments and helps decisions account for wider social and environmental impacts.
Farm priorities and values	The underlying principles and beliefs that shape priorities, goals and how resources are used. This influences the farm's approach to land use, animal welfare, environmental care, the food production systems that a farm adopts and the extent to which it seeks to align with public expectations around fairness, ethics and environmental responsibility.
Management structure	The organisation of people on the farm, including the distribution of roles, responsibilities and power. Effective organisation supports efficiency and fair working conditions and livelihoods, this reduces conflict, improves wellbeing and can help to address issues like worker exploitation and inequality in global food supply chains.

AIR AND CLIMATE

Outcome: Greenhouse gas emissions are minimal and carbon removal is maximised, contributing towards climate change mitigation efforts. Air is of good quality and free of pollutants, supporting the health of people, livestock and the environment.

Subcategory	Description
Greenhouse gas emissions	Gases released by agricultural activities that trap heat in the atmosphere and contribute to climate change. Emissions impact weather patterns and ecosystem stability, affecting food security, water supply and the stability of natural and human systems worldwide.
Carbon sequestration and storage	The capacity of agricultural land, including soils, forests and wetlands, to capture and store carbon from the atmosphere. Increased soil carbon levels enhance soil health and productivity and buffer farms against climate impacts, supporting efforts to reduce atmospheric carbon levels and helping limit rising temperatures and their effects on people, nature and economies globally.
Pollutants	Particulates, chemicals and odours released into the air during farming. Pollutants harm workers, livestock and surrounding ecosystems and can reduce crop yields. They contribute to respiratory illnesses in nearby communities and reduce air quality at regional scales, impacting public health and environmental quality.

SOIL

Outcome: Soils are healthy, fertile and store water and carbon. They support biodiversity and the production of high-quality food, fuel and fibre and contribute to flood prevention and water quality. Soils are free from pollution and resilient to erosion.

Subcategory	Description
Structure	The physical structure of the soil (size, shape and stability of particles). Soil structure impacts water storage, root growth and air flow. Good structure supports plant health and reduces risks like erosion and flooding. It protects rivers and habitats from sediment and chemical run-off, helping preserve aquatic life and reducing damage from extreme weather events.
Chemistry	The composition and balance of the soil, including nutrients, minerals and pH levels. This affects crop health, nutrient availability and the activity of soil organisms, thereby impacting the nutritional quality of food and supporting long-term productivity. Good nutrient balance can reduce dependency on fertilisers and the subsequent risk of land degradation.
Pollutants	Harmful substances in the soil, such as pesticide residues, excess nutrients and micro-plastics. Can reduce crop health, kill beneficial organisms and leach into water supplies. Polluted soils can threaten drinking water, damage ecosystems and expose people and animals to toxins beyond the farm.

WATER

Outcome: Water is clean and abundant in natural and agricultural systems, supporting wildlife and a diversity of aquatic species. Water is sustainably sourced and used efficiently, with no wastage.

Subcategory	Description
Source	The type and origin of water used on the farm, including rainfall, rivers and groundwater. This determines the long-term availability and reliability of water supply, especially in dry periods. Overuse of scarce or contested water sources can worsen drought impacts, reduce water access for others and affect regional food production.
Usage	How water is applied and managed in farming activities. Efficient use supports crop growth and reduces waste, especially during shortages. Poor water management can drain natural reserves, disrupt ecosystems and reduce availability for other farms, communities and wildlife.
Pollutants	Harmful substances, including fertilisers, pesticides, waste and micro-plastics that enter farm water supplies. Polluted water harms animals, crops and soil life, reducing productivity. Contamination can spread through floods or drainage, affecting human health, ecosystems and clean water access beyond the farm.

BIODIVERSITY

Outcome: Biodiversity is rich in both abundance and genetic diversity. From micro- to macro-organisms, across wild, domesticated and cultivated species, life thrives in healthy and resilient habitats and ecosystems.

Subcategory	Description
Wildlife	The wild animals, plants, fungi and microorganisms living on the farm. Diversity supports pollination, pest control and ecological balance, boosting productivity. This helps protect food systems from shocks like disease outbreaks and pollinator loss, supporting food security and nature conservation.
Aquatic life	The organisms living in farm water bodies, including plants, animals, fungi and microorganisms. Diversity maintains water quality, reduces pests and supports natural nutrient cycles. Healthy aquatic life protects freshwater sources and supports ecosystems.
Soil	The microorganisms, fungi and underground flora and fauna living in the farm's soil. Diversity boosts soil fertility, supports plant growth and regulates pests and disease. Declines in diversity can lead to poor crop yields and erosion, reducing the land's ability to grow food and store carbon.
Crops and pasture	The plant species grown for food and livestock. Diversity enhances resilience to disease, pests and extreme weather and reduces dependence on pesticides and fertilisers, protecting food supplies and lowering the farm's environmental footprint.
Livestock	The animal species and breeds raised on the farm. Diversity improves herd resilience to disease and extreme weather, reducing loss and the need for veterinary intervention. A diversity of breeds supports global food security and protects genetic resources vital for adapting to future climate and disease threats.

LAND USE

Outcome: The natural and built features established and maintained by the farm are well-suited, well-configured and adapted to meet changing conditions and the needs of the landscape. Habitats are healthy, interconnected and support thriving ecosystems, while infrastructure is well-functioning and fit for purpose.

Subcategory	Description
Type and size of features	The type and size of natural and built elements on the farm, including hedgerows, forests, barns and infrastructure. A balanced layout supports wildlife, provides shelter, improves drainage and aids productive land use. This influences biodiversity, flood risk, ecosystem health and land connectivity across landscapes.
Configuration of features	How farm features are positioned and linked across the landscape. Good connectivity improves wildlife movement, water flow and efficient working practices. Connected features support species survival and improve land use at catchment or regional level, contributing to healthier environments.
Condition of features	The quality and working state of built and natural features, including fences, wetlands and roads. Well-maintained features enable farm operations to run smoothly and can meet sustainability goals. Healthy features reduce hazards, maintain productivity and support wider landscape ecological functions like pollination and flood control.

CROPS AND PASTURE

Outcome: Crops and pasture are healthy, robust and resilient to disease and climate shocks and stresses. There are secure yields of high quality and nutritious products, with no waste.

Subcategory	Description
Plant health	The condition of plants grown for food and feed. Healthy crops resist pests and diseases, reducing the need for chemical treatments. Strong plant health supports food quality and supply, lowers chemical use and helps protect water, air and soil beyond the farm.
Yield	The amount of crops and pasture produced on the farm. Directly supports income, livestock feed and planning for future seasons. Higher, stable yields improve food availability and reduce reliance on imports, strengthening national and global food security.
Loss and waste	The reduction in yield due to waste, damage, spoilage or inefficiency. Reduces farm profits and indicates flaws in production or storage. Wasted products create unnecessary pressure on resources and higher emissions, representing lost nutrition and contributing to global food loss and climate pressures.
Product quality	The nutritional value, safety and condition of plant products. High-quality crops are more marketable and better for animal and human health. Safe, nutritious food products support public health outcomes and increase consumer trust in food and farming systems.

LIVESTOCK

Outcome: Farmed and working animals on the farm are healthy, enjoy a high quality of life and are resilient to disease and climate shocks and stresses. This supports secure yields of high quality and nutritious products while eliminating waste.

Subcategory	Description
Health	The condition of animals' bodies and the occurrence of disease and injury. Healthy animals have higher wellbeing, grow better, need fewer veterinary interventions and improve farm efficiency. Good animal health reduces antibiotic use and ensures safer, more reliable meat, dairy products and eggs for consumers.
Wellbeing	Animals' mental state, expressed through their behaviour and affected by their environment, nutrition and treatment. Stress-free animals eat, grow and reproduce more effectively, improving productivity. High animal welfare is important for many consumers and can reduce harmful emissions linked to stress and poor animal management.
Yield	The amount of livestock products produced, such as meat, milk, and eggs. Essential for farm income and supply planning. Stable production levels support food availability and help meet dietary needs globally.
Loss and waste	The reduction in yield due to waste, damage, spoilage or inefficiency. Reduces farm profits and indicates flaws in production or storage. Wasted resources mean higher emissions and lost nutrition, contributing to global food loss and climate pressures.
Product quality	The safety, nutrition and condition of animal-based products. High-quality food products have higher market value and support animal and consumer health. Safe, nutritious food products support public health outcomes and increase consumer trust in food and farming systems.

FARMERS AND WORKERS

Outcome: People on the farm enjoy a high quality of life, equitable treatment and opportunities to learn and develop new skills. All workers are respected, receive fair remuneration, have good wellbeing and receive positive recognition for their role on the farm.

Subcategory	Description
Demographic	The age, ethnicity, gender and background of the people who live and/or work on the farm. Inclusive teams bring broader knowledge, ideas and experience, widening perspectives and sources of knowledge on the farm. Equity and representation support stronger farm businesses and promote fairness and cohesion in rural communities.
Health	The bodily health, safety and protection of people on the farm. Safe working conditions are a human right and promote the health of workers, reducing injury, illness and medical costs, as well as boosting rural resilience.
Wellbeing	The emotional and social wellbeing of people on the farm, including their mental health, dignity and relationships. Wellbeing improves workforce satisfaction, motivation, retention and teamwork. Promoting fair treatment can reduce isolation and inequality, supporting healthier, more stable communities.
Work environment	Working conditions such as hours, workload, pay and labour rights. Fair working conditions support satisfaction, retention and performance. Good work environments uphold basic rights, reduce exploitation and strengthen the workforce behind our food systems.
Knowledge and skills	The learning opportunities and exchange of knowledge and skills on the farm. Strong skills and knowledge systems build worker confidence and improve problem-solving and adaptability, as well as supporting innovation, local employment and the resilience of farming communities.

AGRICULTURAL SUPPLIES

Outcome: Agricultural supplies, including agricultural inputs, materials and equipment, are sustainably sourced, pose no risk and cause no harm to environmental or human health. Equipment is well-maintained and supplies are used efficiently, with all waste repurposed within a circular system.

Subcategory	Description
Type and source of agricultural supplies	The type and source of inputs, materials and equipment used on the farm, such as organic or inorganic fertilisers. The choices made can affect carbon footprint, cost and reliability. Sourcing local or low-impact supplies reduces emissions, avoids exploitation and supports more responsible supply chains.
Usage	How agricultural supplies on the farm are used and maintained. Efficient use reduces waste, saves money and prolongs asset life. This reduces the demand for raw materials and manufacturing, easing pressure on global resources and cutting environmental damage.
End of life	What happens to agricultural supplies after use, including waste recycling or repurposing. Minimal waste and re-use limits pollution and disposal costs, reducing landfill pressure, water and air quality beyond the farm.

COMMUNITY

Outcome: Farms contribute to and foster a mutually supportive relationship with their local communities. They share knowledge and resources and actively contribute to local wellbeing.

Subcategory	Description
Employment opportunities	The work opportunities that a farm provides. Local employment can foster community connections and support the local economy if there is a workforce with the necessary skills available locally.
Knowledge and skills exchange	The sharing of skills and knowledge between the farm and local community. Builds capability and expertise both on and off the farm, supporting innovation. Fosters mutual growth, encourages youth engagement in farming and supports broader agricultural literacy and learning.
Resource sharing	The sharing of resources (inc. produce, land, tools and infrastructure) between the farm and local community. This improves efficiency and resources access during shortages or emergencies. It can strengthen social safety nets and build collective resilience beyond agriculture, especially in rural or isolated areas.
Cultural assets and activities	Farm involvement in cultural events, stewardship of community assets and preservation of local traditions. Increased social engagement and community ties, build goodwill, pride and sense of place, connecting food production to wider society and enhancing understanding, respect and rural vitality.

ECONOMICS

Outcome: Farms are economically viable. They have sufficient funds and diverse income streams to withstand shocks and stresses and are able to make investments to deliver farm sustainability outcomes. Farms actively contribute towards a thriving local economy and strong market connections that meet the needs of the farm.

Subcategory	Description
Finances	The economic viability of the farm and its ability to continue operations reliant on money, trade, barter or cooperative systems. Resilient finances support long-term continuity, planning and investment, reducing reliance on external aid and subsidies. They support economies, livelihoods and food supplies.
Income sources	The diversity of income streams, from crops to tourism and grants. Diversified income spreads risk and increases resilience if primary production or demand is disrupted during price drops or poor harvests. It protects rural economies and enables innovation, even during market or climate shocks.
Investment	How the farm invests surplus resources — both financial and non-monetary — to achieve goals. Reinvestment can improve infrastructure, training, viability and sustainability. Responsible investment builds long-term resilience and benefits the wider economy and environment.
Business, markets and services	The profile of the farm's efforts to exchange goods and services, such as organised trade, informal economies and barter systems. Fair and reliable relationships, based on both formal contracts and informal agreements, improve farm stability, forward planning and efficiency, supporting ethical trade, local economies and transparent food systems.

Next steps

The GFM2.0 represents a significant forward step in defining, measuring and advancing on-farm sustainability. The next phase of work will further explore its use in finance, impact reporting and labelling, procurement and true cost accounting. Central to this is continued collaboration.

Building on years of research, consultation and real-world testing, the GFM provides a clear, holistic and practical framework to support farmers, supply chains, researchers and policymakers. By integrating context, outcomes and values, GFM2.0 is designed to enable alignment across local and global scales, while remaining firmly grounded in the realities of farming systems.

To support this ambition, the GFM is entering a new phase of research, application and testing. Alongside educational initiatives and mapping exercises, focus will be on developing the GFM's role in enabling whole-system assessments of sustainability and enhancing the use of primary on-farm data in measurement systems.

Further developments will expand user guidance, strengthen global alignment and ensure the framework continues to evolve through inclusive testing and collaboration. During this phase, we will explore how the GFM can support:

FINANCING THE TRANSITION: Aligning metrics for investment in the public goods provided by sustainable farms, such as climate mitigation, biodiversity and health outcomes. Our aim is to reduce the burden of data collection on farmers while supporting the development of new financial mechanisms that deliver positive outcomes for climate, nature and people.

IMPACT REPORTING AND LABELLING: Improving the flow of dynamic, farm-level data to build more accurate models that better link farm outcomes to wider impacts and support more meaningful sustainability labelling.

SUSTAINABLE PROCUREMENT: Supporting initiatives like the UK Food Strategy's goal for 50% of public procurement to be sustainably and responsibly sourced.

TRUE COST ACCOUNTING (TCA): Investigating how the GFM can contribute to farm-level TCA, highlighting the hidden costs of unsustainable production and strengthening the case for investment in change.

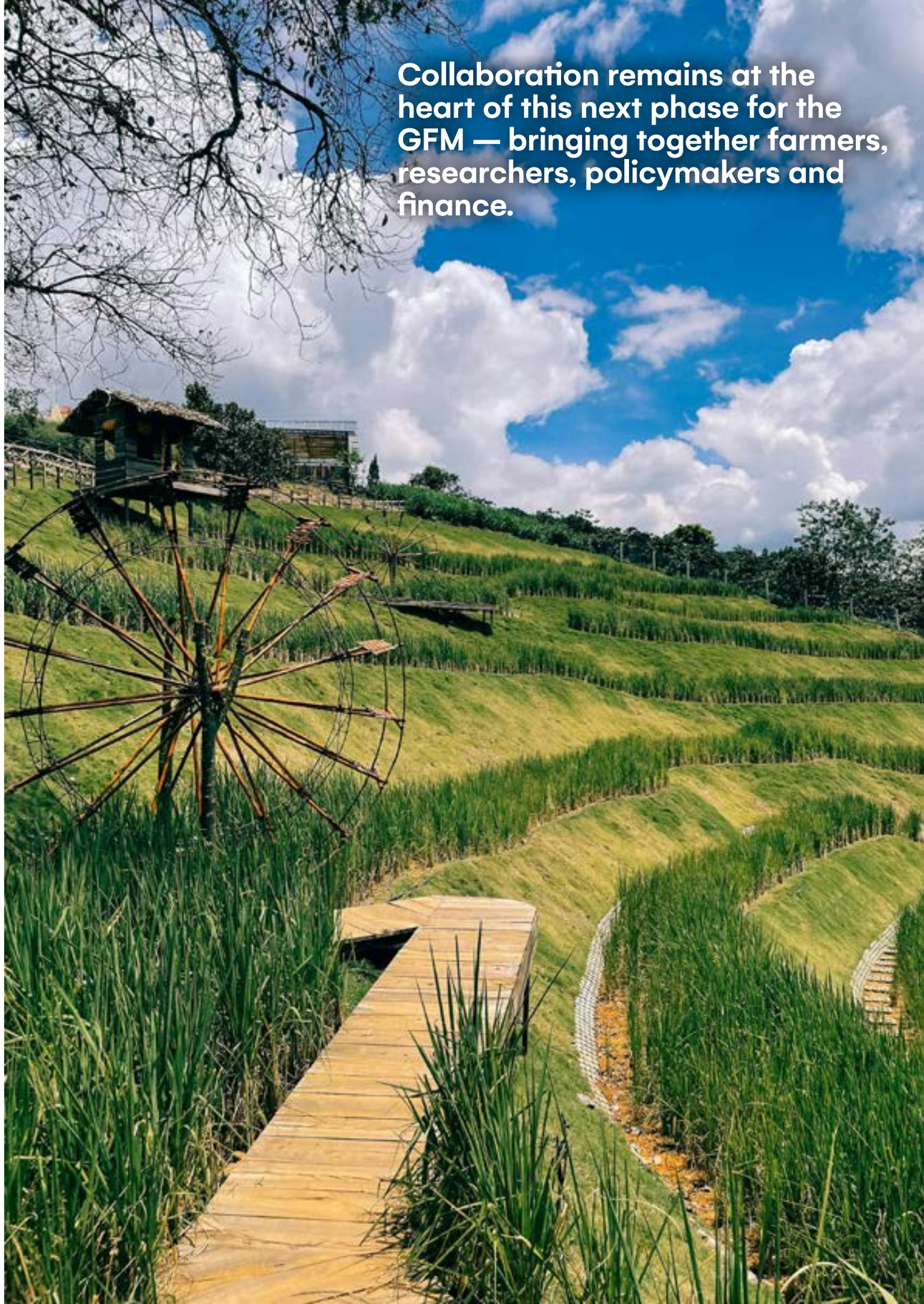
Collaboration remains at the heart of this next phase for the GFM — bringing together farmers, researchers, policymakers and financial stakeholders to build shared understanding and drive collective action. Together, we can help transform the global food system into one that nourishes and restores the health of people, nature and climate from the ground up.

The current version of the GFM framework is expected to remain largely stable over the coming years although refinements will continue to be made in response to testing, learning and evolving needs.

To keep up to date and learn more, sign-up to our newsletter: globalfarmmetric.org

Contact us at info@globalfarmmetric.org

Collaboration remains at the heart of this next phase for the GFM — bringing together farmers, researchers, policymakers and finance.



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Appendix A: Framework updates

CLIMATE > AIR AND CLIMATE

Category change: The Air and Climate categories are now combined to reflect their close interaction; including through the direct influence of airborne emissions on climate and weather. Greenhouse gas emissions and carbon sequestration are included in this category as they are critical to environmental sustainability, though they are typically modelled rather than directly measured. Weather has been moved to Context as it cannot be influenced by farmers.

Subcategory change: The previous focus on climatic stability has been revised, as farmers have limited influence over climate patterns. The category now includes greenhouse gas emissions — previously listed under Farm Outputs — to better reflect areas within farm influence. Air quality has also been added, following the removal of broader pollution themes associated with the Nature category being refined to focus specifically on biodiversity.

COMMUNITY > NO CHANGE

Category change: No change

Subcategory change: The Community category previously focused on what the community provides to the farm, while the farm's contributions to the community were included under Farm Outputs. Feedback indicated that this separation felt unclear and inconsistent. To address this, the farm's contributions to the community have been moved into the Community category to better reflect their value. Inputs from the community are now included in Context as they are beyond the farmer's control.

NATURE > BIODIVERSITY

Category change: The category has been renamed Biodiversity to distinguish it from broader concepts of nature, such as soil and water, which have their own categories. The Biodiversity category now includes crop, pasture and livestock diversity to reflect how biodiversity can be integrated throughout the whole farming system.

Subcategory change: Farm biodiversity is now broken down into more specific subcategories: wildlife, aquatic life, soil and productive biodiversity in crops, pasture and livestock. This reflects the diverse forms of biodiversity present on farms and highlights how productive biodiversity also contributes to overall ecological health. Greater granularity does not necessarily require more measurement at farm level, as certain indicator species may serve as proxies for broader biodiversity.

SOIL AND WATER > SOIL > WATER

Category change: These elements were separated into their own categories to reflect their significance and ensure they are given appropriate focus within the framework.

Subcategory change: The previous subcategories, soil health and fertility, are better understood as outcomes, while structure and chemistry align more closely with the new soil subcategory structure, which focuses on specific system components. Previously, soil and water were combined into a single category with 'water' as a subcategory. Now they are separated, with greater granularity within each category to reflect their distinct roles.

GOVERNANCE > NO CHANGE

Category change: No change

Subcategory change: Language has been clarified to improve understanding and consistency.

FARMERS AND WORKERS > NO CHANGE

Category change: No change

Subcategory change: 'Knowledge' was added alongside 'skills' to reflect its critical role in farm management. The term 'demographic' was also introduced to acknowledge the importance of the farm's socio-cultural makeup.

Appendix A: cont.

RESOURCES > AGRICULTURAL SUPPLIES

Category change: This category now covers materials, agricultural inputs and equipment. The language change reflects a broader understanding of resources, recognising that elements like soil and water are also essential resources used in farming.
Subcategory change: The previous focus was on the 'state of the system', which limited attention to the condition of infrastructure, rather than its use or potential risks to the wider farm system. Subcategories are now aligned with a life cycle assessment (LCA) approach — considering the type and source of inputs, their use and disposal. Infrastructure is now addressed under Land use as its properties are distinct from materials, equipment and inputs. If applying in assessment, we propose the full lifecycle of agricultural supplies is considered.

INPUTS > PART OF AGRICULTURAL SUPPLIES

Category change: Inputs are now part of the Agricultural supplies category, and are specified as feed, seed, fertilisers, medicines and pesticides for greater clarity.
Subcategory change: see Resources above

CROPS AND PASTURE > NO CHANGE

Category change: No change
Subcategory change: The subcategories for plant health, yield, quality and waste have been relocated from the Farm Outputs and Products categories, which have been removed from the framework. The lifecycle and crop establishment subcategories have also been removed, as they are less directly relevant to outcomes and are partly captured through yield and loss indicators.

LIVESTOCK > NO CHANGE

Category change: No change
Subcategory change: As with crops, yield, quality and waste have been added here as the Farm Outputs and Products categories have been removed. The health and wellbeing subcategories have been expanded to incorporate the original intent of the removed lifecycle subcategory.

PRODUCTS > WITHIN CROPS AND PASTURE AND LIVESTOCK

Category change: The Products category has been removed, as its content is now effectively captured within the Crops and Pasture and Livestock categories.
Subcategory change: Now captured within the Crops and Pasture and Livestock categories.

ECONOMICS > NO CHANGE

Category change: No change
Subcategory change: Profit and costs are now encompassed within the broader Finances category, which also includes assets and debt to provide a fuller picture of farm economic sustainability. Investment has been added as a subcategory to reflect its role in enabling the transition to more sustainable farming systems. Market relationships are also now included as these are a key component of economic resilience.

REMOVED: PRACTICES, FARM OUTPUTS, IMPACTS ON PEOPLE AND PLANET

Practices and outputs are acknowledged but not included, as incorporating it would limit the framework's applicability to assessment and accounting use cases. Impacts are acknowledged, but the framework has been kept simple to highlight areas where impacts occur at the farm level. These can then be scaled alongside secondary data and modelling to illustrate wider impacts.

NEW: LAND USE

Land use is now a distinct category in the farm system, covering the built and natural features managed by the farm. Geological and topographical traits remain under Context, as they lie outside the farmer's control. Subcategories describe the type, size, layout, and condition of features. While condition is mainly assessed through biodiversity, other indicators like disease or bush density may also apply, helping to reduce overlap in indicators for assessments.

Appendix B: Definitions

CONTEXT

This category captures the physical, ecological, and socio-economic setting in which a farm operates.
Geology and Topography: The physical features of the land, such as soil type, slope, and elevation.
Environment and Ecology: The natural systems and living organisms on and around the farm.
Climate and Weather: Patterns of rainfall, temperature, wind, and other meteorological conditions.
Agricultural Supplies: The tools, inputs, infrastructure, and services that support farming activities.
Society and Culture: The values, traditions, and social structures of those connected to the farm.
Regulation, Law and Policy: The legal and policy frameworks influencing farming.
Economics and Finance: The financial factors shaping farm costs and income, including market dynamics and resource availability.

GOVERNANCE

This category focuses on how decisions are made and priorities are set on the farm.
Decision Making: The formal and informal processes of evaluating alternatives and selecting actions based on information, risks, and stakeholder input.
Farm Priorities and Values: The importance placed on tasks and objectives, shaped by underlying values and ethical standards.
Management Structure: The organisation of roles, responsibilities, communication, and leadership on the farm, including traditional and cooperative systems.

AIR AND CLIMATE

This category includes emissions and pollutants related to farm operations.
Greenhouse Gas Emissions: Emissions like carbon, methane, and nitrous oxide, directly or indirectly linked to farming activities.
Carbon Sequestration and Storage: Biological, geological, or technological processes that remove and store carbon.
Pollutants: Airborne substances (e.g. pesticide drift, odour, noise) that harms health or the environment.

SOIL

This category addresses the composition and quality of the farm's soil.
Structure: The arrangement of soil particles into aggregates, affecting water flow, aeration, and root growth.
Chemistry: The chemical makeup of the soil, including nutrients, pH, minerals, and organic matter.
Pollutants: Contaminants in the soil that exceed safe levels and pose risks to health and ecosystems.

WATER

This category covers farm water sources, usage, and pollution.
Water Source: The type and origin of water used, such as rainwater, reservoirs, or desalinated sources.
Usage: The amount, method, and efficiency of water extraction and application.
Pollutants: Harmful substances in water, including chemicals, microorganisms, and plastics.

BIODIVERSITY

This category captures the diversity and abundance of living organisms on the farm.

Wildlife: Non-cultivated terrestrial species and their habitats.
Aquatic Life: Flora and fauna living in or around water.
Soil Biodiversity: Species within the soil, including bacteria, fungi, and invertebrates.
Crops and Pasture: Diversity in cultivated plants and managed grasslands.
Livestock: Genetic and species diversity of domesticated animals.

Appendix B: cont.

LAND USE
This category considers how land is used and its condition.
Type and Size of Features: The kinds of natural and built elements on the farm, such as woodlands or barns.
Configuration of Features: The spatial layout and distribution of these features.
Condition of Features: The state of features and their ability to meet ecological or human needs.

CROPS AND PASTURE
This category tracks plant-based production.
Plant Health: A plant's ability to grow, reproduce, and resist stressors.
Yield: The amount of crops and pasture produced after losses.
Loss and Waste: Reductions in expected yield and unused products due to various factors.
Product Quality: The nutritional and physical condition of harvested crops and forage.

LIVESTOCK
This category focuses on animal production.
Health: The physical state of farm animals.
Wellbeing: The animals' welfare and environmental conditions.
Yield: Livestock output and related products after losses.
Loss and Waste: Reductions in livestock numbers or unusable animal products.
Product Quality: The nutritional and sensory quality of meat, milk, eggs, etc.

FARMERS AND WORKERS
This category reflects the people working or living on the farm.
Demographics: The composition of farm populations by socio-cultural attributes.
Health: Physical health of all individuals involved in farm work.
Wellbeing: Social and emotional welfare.
Work Environment: Job conditions including workload, pay, and security.
Knowledge and Skills: Experience, education, and practical abilities.

AGRICULTURAL SUPPLIES
This category assesses the farm's use of inputs and materials.
Type and Source: The nature and origin of inputs such as fertilisers and machinery.
Usage: How inputs are applied or managed.
End of Life: Disposal, recycling, or repurposing of materials once they are no longer useful.

COMMUNITY
This category considers the farm's interaction with wider communities.
Employment Opportunities: The jobs created by the farm.
Knowledge and Skills Exchange: Sharing of expertise through training and collaboration.
Resource Sharing: Joint use of assets and services, from tools to data.
Cultural Assets and Activities: Stewardship of local heritage, traditions, and communal spaces.

ECONOMICS
This category explores financial sustainability.
Finances: The farm's monetary and non-monetary financial systems.
Income Source: Revenue streams and other resources.
Investment: Use of surplus resources to generate long-term value.
Business, Markets and Services: Trade practices and relationships, both formal and informal.

With huge thanks to the farmers and partners who have contributed to the development of GFM2.0.

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