

Food Research Collaboration Briefing

Assessing the sustainability of Food Hubs: why do it and what tools are available?



Food Research Collaboration

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Shaping an effective food system

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Abbreviations

AFN	Alternative Food Network
BFT	Better Food Traders
CAWR	Centre for Agroecology, Water and Resilience
CFE	Community Food Enterprise (defined as enterprises that “don’t simply produce, process or distribute food. They operate at a local level, working in and for their local community”)
GC	Growing Communities
GFM	Global Farm Metric
NEF	New Economics Foundation
SFH	Sustainable Food Hub
SFSC	Short Food Supply Chain

Definitions

Accreditation/certification	The process of endorsing a product or organisation by an independent body on the grounds that certain criteria are met.
Framework	Sometimes used interchangeably with ‘tool’, these are the conceptual guidelines around which an assessment might be focused, for example, ‘food zones’ (see section 5.1). These may reflect different understandings of ‘sustainability’ and what it entails.
Indicator	A qualitative or quantitative value that can be measured or observed and compared against a target or an expected value, for example, business turnover or the proportion of organic produce sold.
Sustainability assessment	A process of evaluating how ‘sustainable’ a product, activity, or enterprise is.
Tool	A means or method for conducting an assessment. For example, a set of indicators for self-assessment, an accreditation process carried out by an independent body, or a piece of software. These may be based upon a specific framework.



Introduction

Our food system needs to be sustainable: this is well understood and hard to deny. How we get there is a trickier question. Our research suggests that ‘sustainable food hubs’ (SFHs) could be a valuable proof-of-concept for how we might reconstruct a food system that does away with extraction and exploitation, and begins to respect the needs of generations alive today and in the future. However, we need to better understand SFHs’ sustainability in order to be able to state their case to policymakers and to replicate their model, as well as to understand their limitations and where wider policy changes are required.

Understanding the sustainability of a food hub requires a way of assessing or measuring its impacts: what it uses up, what it emits, what it gives back, and what value it brings to lives and the local economy. Finding a means of assessing and reporting on SFHs’ sustainability in a way that comprehensively covers the breadth of their reach across the supply chain – from farmers to eaters – and the depth of their impact, given their connectedness to their local communities,

could provide a number of benefits. Assessments can build consumer confidence in parts of the community which have less direct interaction with the social networks that otherwise create trust in the process (such as farmers markets or volunteering on farms); they can highlight to the SFHs themselves where they may be exceeding or falling behind their own expectations or having to make compromises; and they may provide proof to grant-funders and policymakers of the benefits SFHs can provide.

This report outlines what sustainability is and why we need to measure it, before discussing how SFHs stand up to current assessments. It raises important questions about what the function of a SFH is, how wide a reach their impacts may have from farm to eater, and therefore what can and should be measured. This analysis is followed by an overview of some assessment tools currently available to SFHs, providing important context for the Food Research Collaboration’s ongoing work on assessing the sustainability of SFHs.

Sustainable food hubs

Sustainable food hubs are food enterprises that source food directly from multiple producers, aggregate the produce, and sell it on to customers, while applying a set of standards or values that uphold sustainability principles in their sourcing and how they operate.



What are we talking about when we talk about sustainability?

'Sustainability' is commonly associated with the environmental impacts of products or activities: saying something is 'sustainable' often implies that it has few or no negative impacts on the natural environment. In reality, as an idea, it is far more complex than this.

It is difficult to define sustainability without harking back to the much-cited Brundtland Report, which, in 1987, stated that:

*'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'*¹

If the Brundtland report is the cornerstone of conceptualisations of sustainability, the 'three pillars' – economic, social, environmental – are its poster children.² These three aspects, alongside Brundtland's definition, were adopted by the United Nations (UN) General Assembly in its Agenda for Sustainable Development, and are now the

common currency for understanding sustainability.³ In essence, then, sustainability is about moving away from practices which degrade resources and living conditions, towards ones that respect the needs – social, economic and environmental – of others alive now and in the future.

But what does this mean in practice? Moving from a simple (though not uncontested) definition to a set of practices by which to minimise our impacts on the planet and our fellow humans (and non-humans) is not a simple task. The UN itself, in developing a set of goals and indicators for pursuing sustainable development, created no less than 17 goals with 169 targets – the Sustainable Development Goals.⁴ Sustainability, a story sometimes told with three little circles, is a complicated idea which encompasses all of life, society and human dignity, spanning generations and communicating across diverse and often conflicting needs.

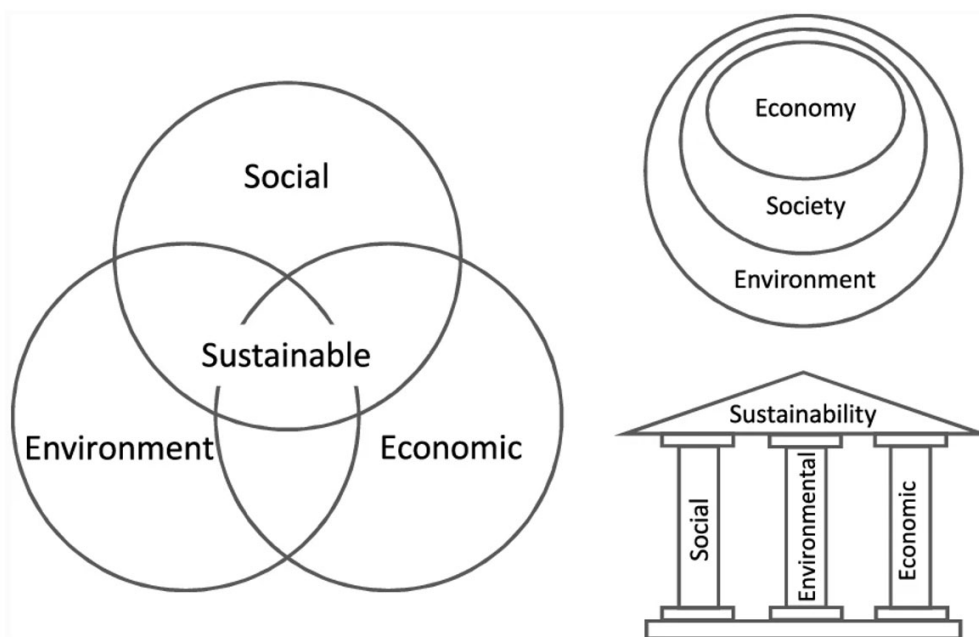


Figure 1. Common depictions of the 'three pillars' of sustainability, taken from Purvis, B., Mao, Y. & Robinson, D. Three pillars of sustainability: in search of conceptual origins. *Sustain Sci* 14, 681–695 (2019). <https://doi.org/10.1007/s11625-018-0627-5>



Why do we need to measure sustainability?

In order to understand the environmental and socioeconomic impacts of our current lifestyles, it helps to measure what we extract, exploit, exhaust and emit. To do so allows us to see where and how we can progress to create more sustainable societies. This type of measurement is often referred to as a ‘sustainability assessment’. The idea of sustainability has become both popular and lucrative in recent years, resulting in fears of political greenwashing and corporate capture.⁵ Assessments, therefore, also hold an important space as a verification tool for claims of sustainability, to make sure action measures up to ambition. Provided assessments are rigorous, transparent and trusted, they can provide a common language for individuals and institutions to navigate the otherwise vague concept of sustainability.

There exists an enormous number of sustainability assessment tools in a variety of sectors, reflecting different combinations of priorities, beliefs, budgetary constraints and available data. This is no less true for those designed specifically for the food system, with its huge number of actors (precisely everyone), its large and sprawling supply chains, and its dramatic effect on nature and the climate.⁶ Vastly differing opinions on what a ‘good’ food system looks like can also feature heavily in how food system sustainability assessments vary from one another, with cultural and social values perhaps weighing in more heavily for food than, say, energy systems.⁷ Such is the nature of sustainability, and these more emotive values are vital components of human interaction with economy, society and the environment.

The act of assessment is, therefore, messy and varied. However, it provides a vital starting point to understanding sustainability. Even points of disagreement between different assessment tools may highlight important dynamics that shape our food system and which need to be addressed to build a more sustainable future.

But sustainability assessments tools and frameworks are only valuable to the extent that they are used. Previous work on the development of sustainability assessment tools at the farm level has uncovered a variety of factors that can influence the effectiveness and uptake of assessments. They include the definition of sustainability adopted, the method of measurement, the availability of data, the user’s perception of the assessment’s accuracy, and the complexity of the tool in terms of use and output.⁸ Transparency, participation, and sensitivity to the motivations of the users have also been shown to be crucial in developing farm-level sustainability assessments.⁹

Little work has been done on the application of sustainability assessment to food hubs, but some of the factors influencing effectiveness and uptake at farm level are likely to be similar. Given the slim margins and minimal staff that SFHs often operate on, cost and time input are also crucial limiting factors.¹⁰

Sustainability assessments for SFHs must strike a balance between being rigorous enough to take account of their numerous and varied impacts, and not outstripping the capacities or undervaluing the needs of the SFHs themselves.



How do SFHs stand up to scrutiny?

Whilst there is limited research into the sustainability of food hubs specifically, the literature on ‘alternative food networks’ (AFNs) and ‘short food supply chains’ (SFSCs) provides a useful insight, as food hubs are a particular case within both of these broad terms. The debate around how sustainable AFNs and SFSCs really are is a particularly lively one, given that they have consciously been established as an alternative to the conventional food system and its associated impacts. Despite this, as recently as 2019, it was reported that “no frameworks based on metrics and indicators have been used for the evaluation of the three dimensions of sustainability in AFNs.”¹¹

Those frameworks or tools that have emerged can have quite limited definitions of sustainability. For example, one report restricts the measure of ‘environmental sustainability’ to carbon emissions per kilogram for transportation, and finds that SFSCs perform very poorly indeed.¹² Important as this finding undoubtedly is, this approach would ignore, in the case of SFHs, any pre-farmgate effect of often rigorous selection criteria for producers, and SFSCs or SFHs’ capacity to reduce food waste compared to global supply chains.¹³ A richer analysis could incorporate this finding to say: SFSCs require far more efficient and less polluting transportation infrastructure in order to be sustainable. Research supports the idea that a home-delivered box schemes could provide this solution, and there are numerous examples of SFHs rolling out low-carbon home

delivery schemes using bike couriers and electric vans.^{14, 15, 16} Moreover, AFNs have been shown to contribute to the sustainability of the food system in subtler ways: through promoting, normalising and enhancing participation in sustainable food systems.¹⁷

When accounting for social and economic impacts, definitions of sustainability can become yet more complicated, and many potential measures emerge. AFNs routinely perform well economically from the perspective of creating local jobs and creating price premiums, but can still fall short in terms of fair pay across these chains, for example where producers may be inclined to undervalue their own work and engage in ‘self-exploitation’.^{18, 19} The ‘social’ aspect can also cover a variety of values, from community engagement and education to access and affordability. The latter is a much-critiqued point for many AFNs, given the difficulty of balancing affordable prices for eaters with paying farmers, farmworkers and employees fairly; accounting for the environmental ‘true cost’ of productivity; and running a viable business.²⁰

“Sustainability,” one report points out, “is not a matter of meeting fixed criteria, but a process of negotiation among potentially conflicting, shifting goals.”²¹ SFHs, though not the subject of much specific attention, so far have a fairly mixed reputation in terms of sustainability, having to juggle priorities across the full supply chain from producer to eater.



Measuring sustainability in SFHs: what tools are available?

Sustainability, then, is a complex concept, and measuring it in the food system is a messy process. But several tools exist which, alone or in combination, can be (and are being) used by SFHs to carry out assessments and set ambitions. Over 100 tools for assessing food system sustainability at the farm level alone have been developed in recent years, such as the Cool Farm Tool and the Public Goods Tool, and others continue to emerge to address the other supply chain functions provided by SFHs.²² The following sections provide an overview of some of the more relevant tools currently available to SFHs to assess their environmental, economic and/or social sustainability.

Better Food Traders Membership and Accreditation

A membership application and accreditation process for food retailers (including SFHs), designed by Better Food Traders (BFT), a network, advocate and accreditor of sustainable food businesses. Data is collected by the food retailers themselves, and then assessed by BFT.

BFT describe themselves as a network for ethical food retailers. They aim to promote and expand agroecological horticulture across the UK, providing a network of peer support, and a route to accreditation for retailers (including SFHs) who support farmers and create a community of food citizens. Their conditions for membership are based on nine principles which require that the retailer:

1. Is 'mission driven' and trading for social purpose, not to maximise profit;
2. Creates transparency, trust and cooperation throughout the food chain;
3. Sources sustainably using 'food zones' as a

framework (see Figure 2);

4. Is trading fairly;
5. Champions ecological farming and food production;
6. Promotes ways of eating that are good for both people and planet;
7. Operates in a low carbon way;
8. Is building a strong community;
9. Is striving to change the bigger picture.²³

As a baseline to evidence commitment to these principles, organisations must show that they have a mission statement indicating that they are providing a route to market for agroecological growers; have a buying policy to show that they are putting that mission into practice; and have a way in which they generate a community of food citizens, through community-building activities or education.

An accompanying membership form ascertains other information, such as whether the retailers source any air-freighted goods, and how much of their produce is sourced in the UK, indicating the centrality of the 'food zone' concept, adopted from founding member Growing Communities, as shown in Figure 2.²⁴

BFT provide a fairly tailored service, so if a retailer applies for membership and is clearly enacting the principles but is not evidencing their work effectively, they will help them write a mission statement and – through regular communication and peer support in the network – will support the retailer to meet all the necessary requirements within a year of application.

Members can also carry out 'accreditation': a more rigorous form of assessment than membership,

which requires evidence that they are actively working towards all nine principles. Whereas the membership application can be carried out in under 20 minutes, the accreditation application takes two hours. Fewer retailers have achieved accreditation than membership, due to the longer application process, the volume and detail of data required, and the more stringent assessment policy.

BFT membership is a straightforward assessment tool, which puts little burden on the time and resources of a SFH, while providing the legitimacy of being verified by an external organisation. BFT

promote agroecology and ‘food zones’ rather than ‘sustainability’ explicitly, but there are potential synergies with sustainability, across all three dimensions.

New Economics Foundation Farmer-focused Supply Chains

An evaluation framework for the social, environmental and economic impacts of food enterprises in financial terms, developed by the think tank the New Economics Foundation (NEF).

Between 2019 and 2020, NEF Consultancy conducted an impact assessment of a veg box scheme and farmers’ market run by Growing Communities (GC), a community-led food enterprise based in London. In collaboration with the Soil Association, a charity and organic certification body, they mapped and surveyed a range of stakeholders in the Growing Communities ‘system’, as can be seen in Figure 3. Collected data was quantified or monetised, where appropriate, to measure the value supplied by GC to their community.

This enabled environmental, social and economic benefits of GC to be stated in accounting terms, such as “[GC’s] operations generated an estimated £6,294,000 in social, economic,

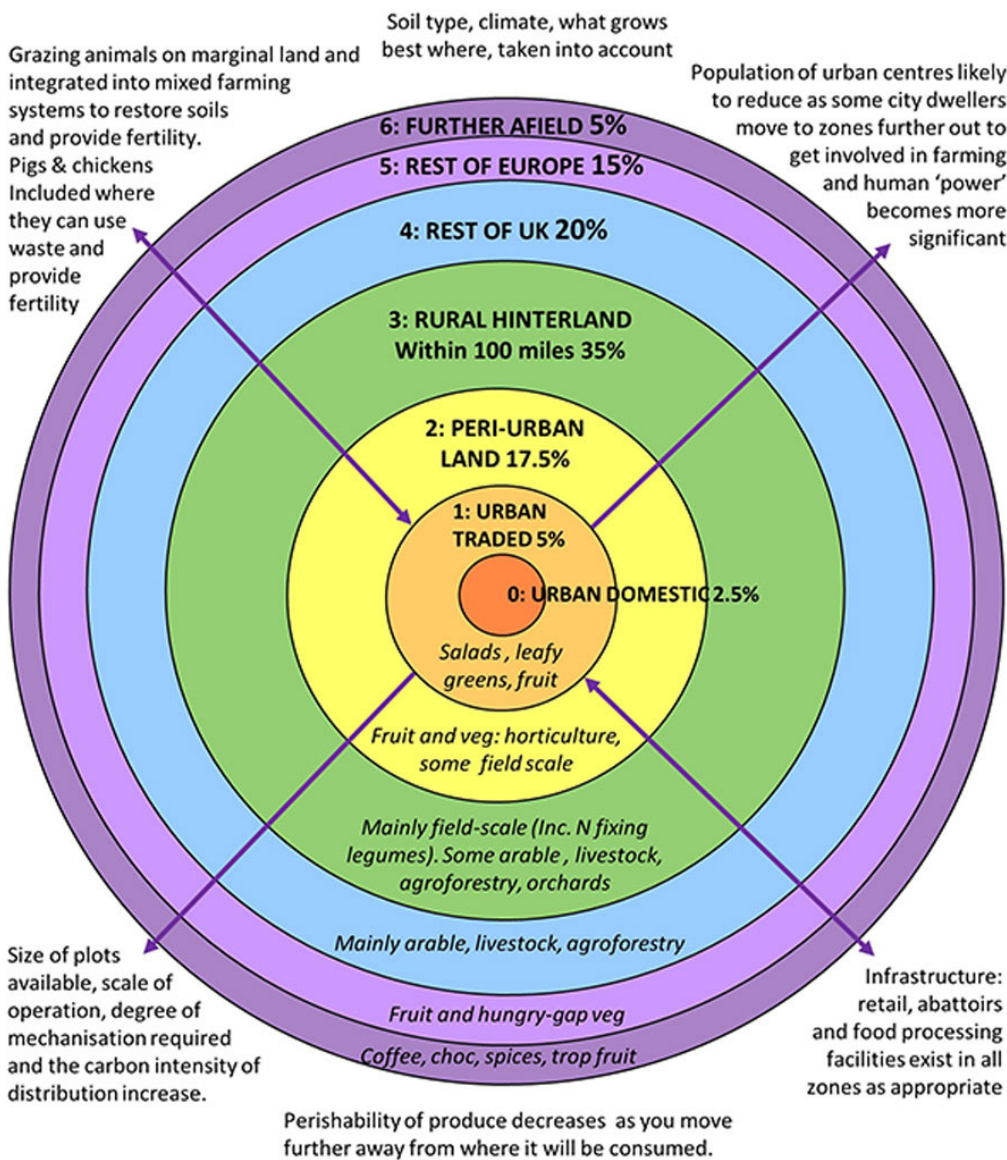


Figure 2. Growing communities food zones diagram, as used by Better Food Traders. <https://growingcommunities.org/food-zones>

Stakeholder group	Description of engagement with Growing Communities
Farmers	Organic, local farmers directly supply food to the veg scheme and farmers market.
Food processors	Food processors sell products at the weekly farmers market.
Employees	Growing Communities' direct employees.
'Food eaters' via the veg scheme	Growing Communities supplies food to veg scheme customers and their households that they collect from distribution points
'Food eaters' via the farmers market	People attend the weekly farmers market in Stoke Newington, purchasing food directly from farmers and food processors.
The environment	The environment is affected by the farming practices undertaken in the Growing Communities supply chain, by the transportation and storage of produce, by waste generated in production and consumption, and by changes in behaviour among food eaters.

Figure 3. Map of stakeholders included in NEF's evaluation. <https://www.nefconsulting.com/wp-content/uploads/2021/04/Farmer-focused-routes-to-markets-an-evaluation-of-growing-communities-April-2021.pdf>

and environmental value in the 2019/2020 FY,” and for the share of these values to be attributed to different stakeholders: “the greatest proportion of this, circa 60%, went to veg scheme customers and their households.”²⁵ Values were calculated from a variety of indicators relevant to different stakeholder groups, such as “increase in adventurous cooking” for eaters or “reduced GHG emissions due to the exclusion of use of synthetic nitrogen fertilizer” for the environment. The accounting approach allowed for a wide range of diverse impacts to be measured in the same units – pounds and pence – which lends some legitimacy to an otherwise disparate list.

To be able to measure and report on a food enterprise's impacts in these terms can be incredibly beneficial for applying for grant funding – sometimes an important income stream for SFHs – as well as to customers, who may appreciate seeing a financial measure of the health and wellbeing benefits they derive from their purchasing choices.

NEF outline a number of limitations with their approach, for example with quantifying the impact of organic growing and of short supply chains, due to a lack of primary data and the applicability of cost-benefit-analysis to “valuing fundamental, life-support systems such as those provided by the environment.”²⁶ These issues are not limited

to the design of this tool, but are the subject of much debate concerning the commensurability of environmental, social and economic factors and the aptness of monetary value as a measure for them.²⁷

If SFHs wished to use this assessment framework, there would be a cost in terms of money and time, given the need to employ a consultant with the appropriate skills, and to recruit stakeholders to participate in the

surveys. However, this tool allows for concise and convenient reporting of findings, and the involvement of an independent organisation could improve trust in the process.

Shared Assets Local Economic Resilience

*A framework for self-assessing the local economic resilience of food enterprises, designed by Shared Assets, a social enterprise working on common-good land use through consultancy, research and movement building.*²⁸

Shared Assets have created a series of guides for developing ‘strong and resilient organisations, livelihoods, networks and local economies.’²⁹ These were developed with three Community Food Enterprises (CFEs), defined as enterprises that “don't simply produce, process or distribute food. They operate at a local level, working in and for their local community.”³⁰ Two of those involved in the research run a SFH as part of their enterprise. One of the guides they created, Local Economic Resilience: the part you play – A guide for community food enterprises, contains a list of ‘Factors of Resilience’ for CFEs, to help them identify how they contribute to local economic

resilience, and how they might measure and report on those contributions.

The hope is that this will help CFEs to recognise areas where they can develop their organisation, and also to state their case to gain support from local authorities, investors and other interested parties. Though the framework focuses on economic impacts and is not entirely applicable to the function of SFHs, it nonetheless contains many relevant indicators.

These Factors of Resilience are divided into six categories:

1. Responsible business
2. Responsive public sector
3. Positive economic activity
4. Community assets
5. Environmental sustainability
6. Resilient citizens.

As can be seen below, these categories are sub-divided into: things that ‘resilient local economies need’; lists of actions or provisions that CFEs can contribute towards that goal; and evidence they could provide of their activity and impact in this area. The evidence required ranges from ‘number of people you employ’ – a fairly simple thing to evidence – to ‘self-reported changes in skills and employability by workers, trainees and volunteers’,

data which would involve a great deal more time and effort for the CFE to collect and analyse. The guide also provides the outline of an exercise for hubs to explore their local economic resilience, with a guide for facilitators.

Shared Assets’ guide for CFEs is designed for self-assessment and self-reporting, with no strict framework for which indicators must be met to what extent. The time required to carry out this assessment would depend on how many indicators were explored and to what degree, and expert guidance might be required to collect and analyse some of the more complex data.

The use of data which CFEs may already be collecting, or could easily access, increases the ease with which this assessment could be carried out. Though the lack of a strict framework which can be externally assessed could impact on customers seeing findings as trustworthy, the assessment is primarily designed for internal use and for reporting to local authorities and funders, so this is not necessarily an issue.

This framework is accessible and adaptable to the requirements of different enterprises, with a good level of detail to assist SFHs in conducting their own assessment without needing to involve an independent organisation. Though it focuses on local economic resilience, it has many overlaps with the different dimensions of sustainability.

Resilient local economies need...	What can you offer?	What can you evidence?
A diverse range of responsible enterprises	<ul style="list-style-type: none"> • Creation of and support for new food enterprises • Demonstration of innovative or progressive models of land use, distribution and enterprise 	<ul style="list-style-type: none"> • Number of businesses created and supported • Records, case studies and testimonials of local or regional trade within local food sector
Viable businesses and business models	<ul style="list-style-type: none"> • Financially viable enterprises and livelihoods • Financial support for growers • Support in accessing land at affordable prices • Business mentoring for new entrants • Cooperative and community-led governance models 	<ul style="list-style-type: none"> • Annual accounts showing turnover and profit • Business plan showing plans for growth or diversification • Growth of turnover or land managed • Statistics on access to finance and business support • Evidence of skills and expertise of staff and board members

Figure 4. A sample of Shared Assets’ Factors of Resilience. <https://drive.google.com/file/d/18T4LJ7nCCvioy9KWSxGPJ9amqCYPHW5v/view>

Social Impact Toolkit

A self-assessment toolkit focusing on the social impacts of food businesses, developed by the Centre for Agroecology, Water and Resilience (CAWR), a research centre; the Real Farming Trust (RFT), a charity who fund, advocate and educate for ‘enlightened agriculture’; and a number of community food businesses.³¹

CAWR, RFT and several community food businesses collaborated to develop an online, interactive ‘Social Impact Toolkit’. It is intended to be used by community food businesses, which could include SFHs, to access various tools and frameworks for pursuing social impact within their communities and evidencing these efforts. The project defines community food businesses as those that operate at a local scale to benefit their community (to whom they are also accountable), incorporating principles and practices of agroecology and food sovereignty.³²

The toolkit has been designed specifically to not require intervention or assistance from an outside ‘expert’, but rather to be user-friendly and self-administered. Across the domains of health, community and livelihoods, the toolkit indicates

several ‘outcomes’ – the changes or benefits the business might bring about; ‘indicators’ – the measurable actions or alterations that the businesses might look for or undertake; and ‘tools’ – the means by which data can be gathered to meet criteria described in the indicators.

The outcomes are:

- Changing and sustaining (food) practice
- Physical and mental health and wellbeing
- Opportunities (‘spaces and roles available to people to engage and participate’)
- Knowledge, skills, training and experience
- Community economic impact
- Inclusion
- Community engagement
- Inter-connections (‘the relationships and partnerships that your project has made’).

The tools are a non-exhaustive list of qualitative and quantitative techniques, including sample customer surveys, guidance on participatory video techniques, and focus group scripts. This toolkit is designed to be highly adaptable to different contexts and, as such, the time and skill required for it will vary depending on a business’s interpretation. It has the potential to be a highly

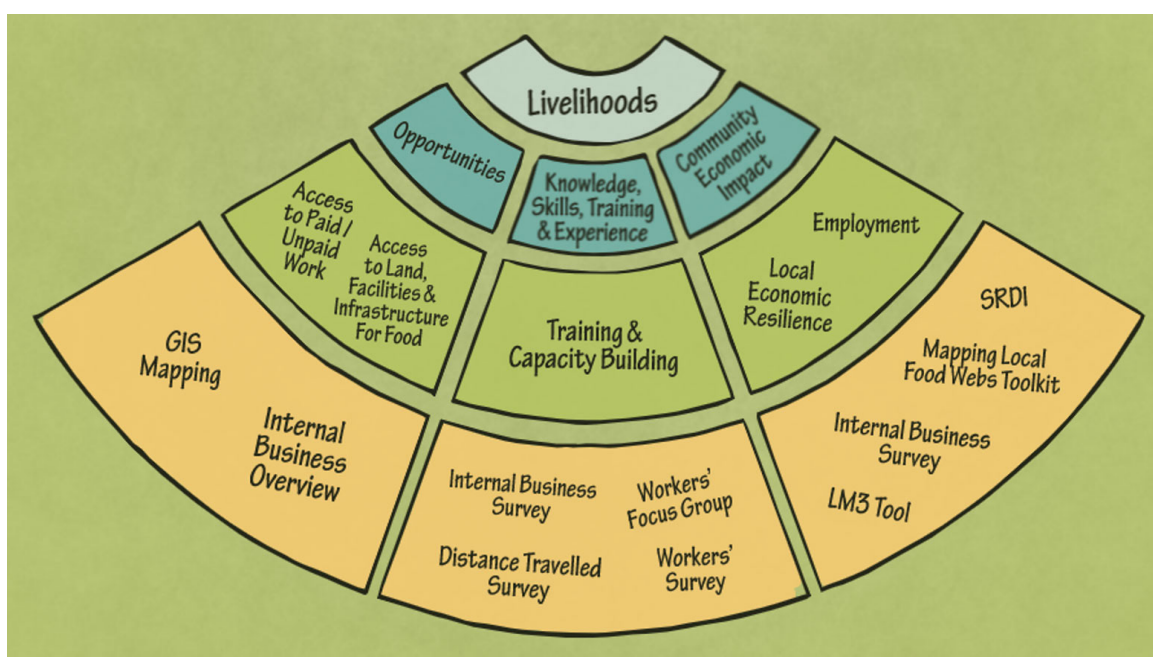


Figure 5. The ‘Livelihood’ component of the social impact toolkit. <https://www.social-impact-toolkit.co.uk/livelihoods/training-capacity-building>

detailed assessment, focusing on the social dimension of sustainability, with rich qualitative data collection, which businesses may or may not have the capacity to interpret.

Like other self-assessments, there is no strict accreditation process that guarantees a certain standard or provides a clear reporting mechanism. Rather, it is designed to encourage greater self-reflection within the enterprise across a variety of challenges. Though it does not cover all the dimensions of sustainability, it provides a detailed assessment of social sustainability, which can be lacking in other toolkits.

Sustainable Food Trust Global Farm Metric

A sustainability self-assessment tool developed by the Sustainable Food Trust (SFT), a charity set up to accelerate the transition to more sustainable food and farming systems.³³ Designed for use on-farm, it has a large focus on environmental impacts.

Whilst this assessment is applied pre-farm gate, it provides potentially useful criteria for SFHs to assess the impacts of how they select their producers and suppliers. The Global Farm Metric

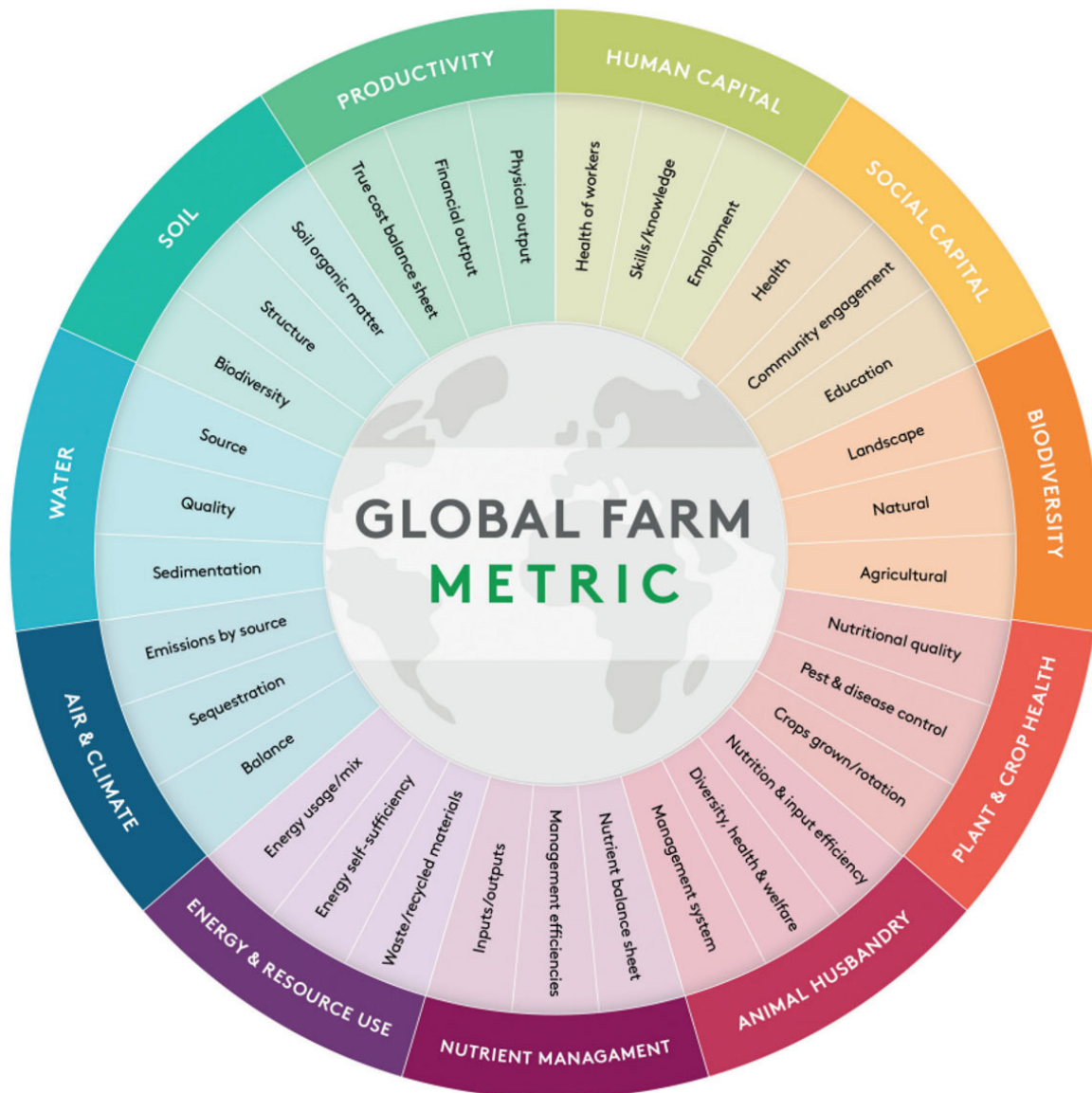


Figure 6. The categories and indicators of the Global Farm Metric. <https://www.globalfarmmetric.org/wp-content/uploads/2021/10/ELM-Test-Report.pdf> SFT, 2021

(GFM) has been developed by SFT with the intention of creating a 'rigorous and consistent' way for farmers, globally, to measure their 'whole-farm' impacts.³⁴ The 'whole-farm' approach is intended to understand and better balance the trade-offs between different goals: how farming for carbon sequestration might harm biodiversity, for example.

The creation of the GFM was motivated by earlier research which found a considerable overlap of 60% between data required for various assessment tools and certification schemes, implying a need for a single, more 'harmonised' approach.³⁵ Now developed into a self-assessment tool and tested with several farmers, the tool intentionally uses only indicators that can feasibly be measured on the farm.³⁶ It is intended to be inclusive and applicable to all farm types.

The assessment focuses on 11 categories, each with three sub-categories:

- Productivity
- Human (capital)
- Social (capital)
- Biodiversity

- Plant and crop health
- Animal husbandry
- Nutrient management
- Energy and resource use
- Air and climate
- Water
- Soil.

For each sub-category, the tool outlines a number of indicators, for example 'workload compared to working time directive' under the 'Health of Workers' sub-category. There is a strong focus on quantitative data over qualitative, based on farmers' preferences. This makes comparisons, baseline creation, and target-setting easier than with qualitative data, but perhaps loses some more nuanced detail as a result.

Whilst social and economic factors are integrated into the assessment, the focus is largely on environmental sustainability, on-farm. SFHs would have to integrate the environmental impacts of their wider operations into an assessment, but this tool could offer a comprehensive and straightforward measure of the impacts of their producer selection criteria.



Conclusion

Sustainability is both a buzzword and a vital goal for human societies. Without measuring our impact, it is difficult to chart progress on this goal, hold organisations accountable, or raise ambitions. With sustainability interpreted in a variety of ways, assessments provide a shared definition and a means of verification to navigate both the messiness of sustainability and the real risk of greenwashing. To date, there have been few assessments specifically designed for use by sustainable food hubs (SFHs). Where they have been assessed, they have not always performed well, with economic sustainability tending to

outstrip environmental and social impacts. Sustainability assessments relevant to the scale and function of food hubs are proliferating, but may need to be used in combination to encapsulate the broad range of influence SFHs have across their supply chains, from producer to eater. This rigour must, however, be balanced with practical questions of SFHs' capacity and incentive to carry out assessments. Looking forward, we need to find ways to help SFHs navigate this patchwork of assessments, to measure the scale of their impact and to identify where we may need to push for wider systemic change.



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