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Community farming in Northern Ireland: Definitions and impacts

SPECIAL ISSUE
Community-Based Circular Food Systems

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Jonathan H. Hanson [a] *
Jonny Hanson Ventures and Queen's University Belfast

Ciaran Collins [b]
CiCo Consulting

Tiziana O'Hara [c]
Co-operative Alternatives

Matthew N. Williams [d]
Jubilee Community Benefit Society

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Abstract

This paper explores the extent to which community farming can be a component of a community-based circular food system. Community farming is part of a broader pattern of civic agriculture, whereby more localized food production and consumption are linked to a wider, and sometimes global, set of economic, social and environmental factors. However, although aspects of community farming, notably community supported agriculture (CSA) and care (or social) farming have been well defined and studied, community farming as a broader process of civic agriculture has not. Furthermore, there is a limited number of published studies on the social, economic, and environmental impacts of the varied components of community farming. In this study, a focus group was used to generate the following definition of community

[a] * *Corresponding author:* Jonathan H. Hanson, Director, Jonny Hanson Ventures, Ballymena, Northern Ireland; and Research Fellow, c/o ARK, School of Social Science, Education and Social Work, Queen's University Belfast; 20 College Green; Belfast, Northern Ireland, BT7 1LN; j.hanson@qub.ac.uk; https://orcid.org/0000-0002-1495-4732

[b] Ciaran Collins, Director, CiCo Consulting, Monaghan, Ireland; ciaran@fundingi.co.uk

[c] Tiziana O'Hara, Director, Co-operative Alternatives, Belfast, Northern Ireland; tiziana@coopalternatives.coop

[d] Matthew N. Williams, Education and Conservation Manager, Jubilee Community Benefit Society, Larne, Northern Ireland; matt.williams@jubilee.coop

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farming: a process of collaborative transformation at the intersection of land, community, and enterprise; and a definition of a community farm: a place of collaborative transformation at the intersection of land, community and enterprise. This study also presents data from nine diverse community farming projects in Northern Ireland that are part of the Cultivating Community Farming (CCF) project. Over a two-year period, social return on investment (SROI) methodology was used to quantify their cumulative impacts, employing 12 metrics: 11 monetized and one nonmonetized. The overall SROI ratio for the nine projects was 3.52:1, with 90% of this value being social, followed by 8% environmental and 2% economic. This study provides valuable insights into some of the value generated by community farming, notably social, as well as an operational definition that can catalyse further research, practice, and advocacy among stakeholders. It also articulates community farming as a continuum or umbrella term which can incorporate more multifunctional approaches such as care and social farming, and more food production-oriented practices such as CSA.

Keywords
Ireland, community supported agriculture, care farming, social farming, civic agriculture, social agriculture, social return on investment, community-based food systems

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Study design: CC, TO, and JHH; Data collection and analysis: CC; Article writing: JHH; Article editing: JHH, CC, TO, and MNW.

Author Disclosures
Dr. Jonathan (Jonny) Hanson was a consultant on the Cultivating Community Farming (CCF) project and is now at the ARK social policy hub at Queen's University Belfast. Ciaran Collins was the CCF impact measurement consultant and is the director of CiCo Consulting, while Tiziana O'Hara was the CCF project lead and is a director of Co-operative Alternatives. Dr. Matthew (Matt) Williams is the education and conservation manager at Jubilee Community Benefit Society.

Introduction

Community farming can be conceptualized as a diverse spectrum of approaches that connect communities with farming and farming with communities. It is part of a broader pattern of civic agriculture, whereby more localized food production and consumption are linked to a broader set of economic, social, and environmental factors composing a sustainability agenda, often at a global level (Kaika & Racelis 2021; Lyson, 2004). Multifunctional elements, especially involving wellbeing and education, may also be integrated with the food production components (Henderson & Van En, 2007). These elements can include formal care/social farming programs focused, for instance, on therapeutic interventions (Jarábková et al., 2022; Parsons et al., 2010). However, this breadth and diversity of community farming belies a lack to date of articulated scholarly definition. In a Google Scholar search for the term "community farming," for example, none of the top four journal articles that mention the term in their title defines it (Davenport & Mishtal, 2019; Heise et al., 2017; Liu et al., 2017; Ravenscroft et al., 2013). Furthermore, there is a lack of clarity about how community farming relates to other, similar approaches, particularly care/social farming and community supported agriculture (CSA).

With its longstanding Japanese origins, and reflecting the reality of communal approaches to at least some agricultural tasks through most of human history (Takahashi et al., 2022), CSA remains the most commonly practiced, studied, and defined form of community farming. Robyn Van En, an early American pioneer of CSA, defined it as "food producers + food consumers + annual commitment to one another = CSA + untold possibilities" (Henderson & Van En, 2007, p. 3). A later definition, in a report on English CSAs, suggested: "any food, fuel or fibre producing initiative where the community shares the risks and rewards of production, whether through ownership, investment, sharing the costs of production, or provision of labour" (Saltmarsh et al., 2011, p. 4). More recently, the Community Supported Agriculture Network UK (n.d.) has defined CSA as a "partnership between farmers and consumers in which the responsibilities, risks

and rewards of farming are shared" (p. 1).

The CSA Network UK also categorizes CSAs as farmer-led, community-led, producer-community partnerships, and community-owned farms. The fourth category, however, may not necessarily involve CSA models; for example, at Fordhall Farm, England's first community-owned farm, the food is sold through a farm shop, farm café, and pop-up food trailers rather than through a CSA model (Hollins, 2012). Nor do these definitions of CSA cover the wide range of social, cultural, community, and environmental services provided by many CSA schemes in addition to their food shares. For these reasons, CSAs can be important in creating social value (Haney et al., 2015). As well as through improving wellbeing (Rossi & Woods, 2021), this can include the development of both bonding social capital, where connections are created within a community of CSA members, and bridging social capital, where these interactions are extended to nontraditional CSA members or communities (Furness et al., 2022). Nevertheless, despite this social value creation, many CSAs struggle to achieve financial security and resilience (White, 2015). In the U.S., cost-offset CSAs (CO-CSA) augment financial subscriptions with grant-based income in order to benefit disadvantaged communities, such as through public health improvements (Sitaker et al., 2021). While the primary focus of CSAs may be food production, it is also clear that they can be multifunctional entities in their own right, creating multiple and complementary forms of value.

This multidimensional ethos is at the core of care/social farming practices, which have also been studied extensively. (In this study, care and social farming are used interchangeably.) For instance, Jarábková et al. (2022) cite no less than eight definitions of social farming in their systematic literature review. The sector also uses differing terminology, depending on situation. In the UK, for example, the term care farming is more widely used; it has been defined as the "therapeutic use of farming practices" (Parsons et al., 2010, p. 237). Jarábková et al. (2022) identify three broad strands of care/social farming, focused on wellbeing, social inclusion, and education; a categorization found, for instance, among social farming in the Netherlands (Hassink et al., 2020). While only 8.2% and 6.7% of the 134 studies reviewed by Jarábková et al. considered environmental and economic topics, respectively, food production featured in four of the eight definitions.

As with the educational and wellbeing elements of CSA, the food production aspects of care/social farming have received less attention (e.g., Nazzaro et al., 2021; Nicolosi et al., 2021), although Tulla and Vera (2019) argue that it could be used as a tool to help achieve food sovereignty in Europe. While the primary focus of care/social farming may be its wellbeing, educational, and social inclusion components, food production clearly can be an important part of its mission. As with CSAs, care/social farms are able to create social, economic and environmental benefits in tandem (Hassink et al., 2020).

Irrespective of competing or absent definitions, incorporating elements of CSA and care/social farming, and with our working definition of community farming as a "diverse spectrum or continuum of approaches that connect communities with farming and farming with communities," it is clear that community farming is diverse and multifaceted. The availability, affordability, quality, and sustainability of food are key tenets of the practice (Samoggia et al., 2019). It often involves economic or financial considerations on the part of the farmer, whether the farms are family-owned businesses (Piccoli et al., 2021; Pole & Gray, 2013; Samoggia et al., 2019) or social enterprises (Hudcová, 2022). Issues of connection and identity, especially between consumers and citizens on the one hand and their environment on the other, are often significant (Liu et al., 2017; Ravenscroft et al., 2012; Ravenscroft et al., 2013). These issues may often connect with wider, more global concerns about equity and justice (Bonfert, 2022; Ostrom, 2007; Ravenscroft et al., 2012; Wittman et al., 2017). Significantly, community farming often aims to address and incorporate a range of environmental, social, cultural and community concerns (Bougherara et al., 2009; Piccoli et al., 2021), such as the inclusion of marginal groups such as refugees (Andreatta, 2006).

Community farming in Northern Ireland (NI) exhibits many of these same trends but is less

developed or studied compared to other regions of the UK, Ireland, and Europe. The CSA Network UK map shows four CSA members in NI, compared with over 150 members for the whole of the UK (Community Supported Agriculture Network UK, 2024), though the numbers are similar on a per-capita basis. However, this small number represents an increase from one CSA—Jubilee Community Benefit Society (JCBS) (2024)—in 2018, with a small number of others that are in development or unregistered. By comparison, care/social farming projects that incorporate wellbeing, education, and/or social inclusion elements are better established, led by Rural Support with family farms and Social Farms & Gardens (formerly the Federation of City Farms and Community Gardens) with community and urban gardens. The former's website shows 16 operational social farms in NI (Rural Support, 2024), while the NI map of the latter has more than 100 initiatives (Social Farms & Gardens, 2024), with some overlap between these and both the CSA Network UK and Rural Support projects. However, while social farming in NI has had clear buy-in and funding from both the Department of Agriculture, Environment and Rural Affairs (DAERA) and the Department of Health, and community gardening has received support from local governments (Social Farms and Gardens, 2023), community farming, including CSA, has had little to no official support to date from relevant government departments (Hanson & Walsh, 2024). Partly to address this gap, the Cultivating Community Farming (CCF) project was developed from 2022 to 2024, funded by the Co-op Foundation, and delivered by Co-operative Alternatives and JCBS (Cultivating Community Farming, 2024). It worked with nine early-stage community farming projects across NI to accelerate their growth through networking, mentoring, skills development and capacity building. Accelerator and incubator projects like this have increased the success rates of other participating enterprises (Smith et al., 2019). Overall, community farming in NI has the potential to contribute to a more multidimensional, circular, and sustainable agri-food sector (Albanito et al., 2022; Nature Friendly Farming Network, 2023), but this potential is poorly understood.

Our review of the relevant literature has identified gaps in what constitutes community farming, including its relation to both CSA and care/social farming, as well as its social, environmental, and economic impacts. Within the wider framing of how community farming might be a component of a community-based circular food system, the following research questions were devised:

1. What are the definitions of community farming and community farm?

2. What are the social, environmental, and economic impacts of community farming in Northern Ireland?

Methods

Measuring Impact in Community Farming

Agriculture of all types has seen a recent significant increase in assessment of its impact and sustainability, driven by increasing environmental and social concerns (Latruffe et al., 2016). Overall, numerous benefits from assessing impacts have been cited, including improved innovation (Ryan et al., 2016), improved organizational practice (NPC, 2022a) and increased ability to attract funding (NPC, 2022b). A notable tension for many of the indices and measurements developed exists between, on the one hand, the need to have generalized indicators that can be used in and compared between multiple regions and types of farming , and on the other hand, the challenges of like-for-like comparisons across the diversity of these farming regions, practices, and systems (Gomez et al., 1997; Reig-Martinez et al., 2011; Zahm et al., 2008). Similarly, as with all research approaches, broad quantitative methods can lack depth while narrow qualitative approaches can lack breadth. This study therefore employed a mixed-methods approach to capture the breadth and depth of community farming data.

Reports on CSA impacts in England (Saltmarsh et al., 2011) and Wales (Little & Giles, 2020) have used varying methodologies to assess different dimensions of CSA practice, especially surveys and questionnaires. Saltmarsh et al.'s (2011) study used the asset-based sustainable livelihoods ap-

proach, while the Welsh report did not specify a framework. However, while the sustainable livelihoods approach is useful for providing an information baseline for access to assets, it is less useful for measuring changes and/or impacts to and/or from these resources. In addition, the lack of a standardized approach for both studies makes like-for-like comparisons with other impact assessments challenging. However, the Saltmarsh et al. use of case studies provided in-depth qualitative information to complement the quantitative data. A project to provide a social impact toolkit for community food enterprises, by Coventry University and the Real Farming Trust, detailed an array of methodologies (Coventry University, 2018). Quantitative data on the social, environmental, and economic impacts of community farming can be used to assess their potential contribution to more circular food systems, as has been done in Europe (van Zanten et al., 2023).

Another quantitative option for community farming impact assessment is Social Return on Investment (SROI), a participatory and robust approach which, in monetising impact, can be of particular interest to policymakers. However, its complexity requires expert input and can be resource-intensive (Communities Living Sustainably, 2015; Morris, 2019). Nevertheless, compared to the sustainable livelihoods approach, for instance, it allows changes in impact to be measured across social, economic, and environmental outcomes, as well as allowing like-for-like comparisons with other projects, whether focused on community farming or not. Furthermore, it involves project participants in defining the outcomes they wish to measure and the indicators they wish to use in the process, increasing buy-in, involvement, and relevance to participants (Greenspace Scotland, 2011).

A review of SROI assessments from 20 Scottish greenspace projects found ratios of between 2:1 and 20:1, with approximately two-thirds at up to 9:1 (Greenspace Scotland, 2013). Similarly, a SROI analysis of three English community food projects had a combined result of 6.97:1 (Courtney, 2014). More recently, Vasiliu et al. (2024) found an SROI ratio of 2:1 in the determined value of an urban greenspace in Northern Italy. In summary, SROI results can vary widely.

Finally, focus groups have been used successfully in analysing food projects (McGlone et al., 1999). They provide a quick and accessible method to gather qualitative information, with the participation in the process increasing the depth and range of perspectives shared (Newing et al., 2011).

Overall, these impact measurement approaches to assessing community farming projects demonstrate the inherent limitations of quantitative data in capturing the depth of human interactions with farming systems, as well as the difficulty of comparing multiple qualitative data sets. Consequently, mixed-methods approaches, such as that of Saltmarsh et al. (2011), can provide both quantitative breadth and qualitative depth in attempting to measure the social, economic, and environmental benefits of the projects.

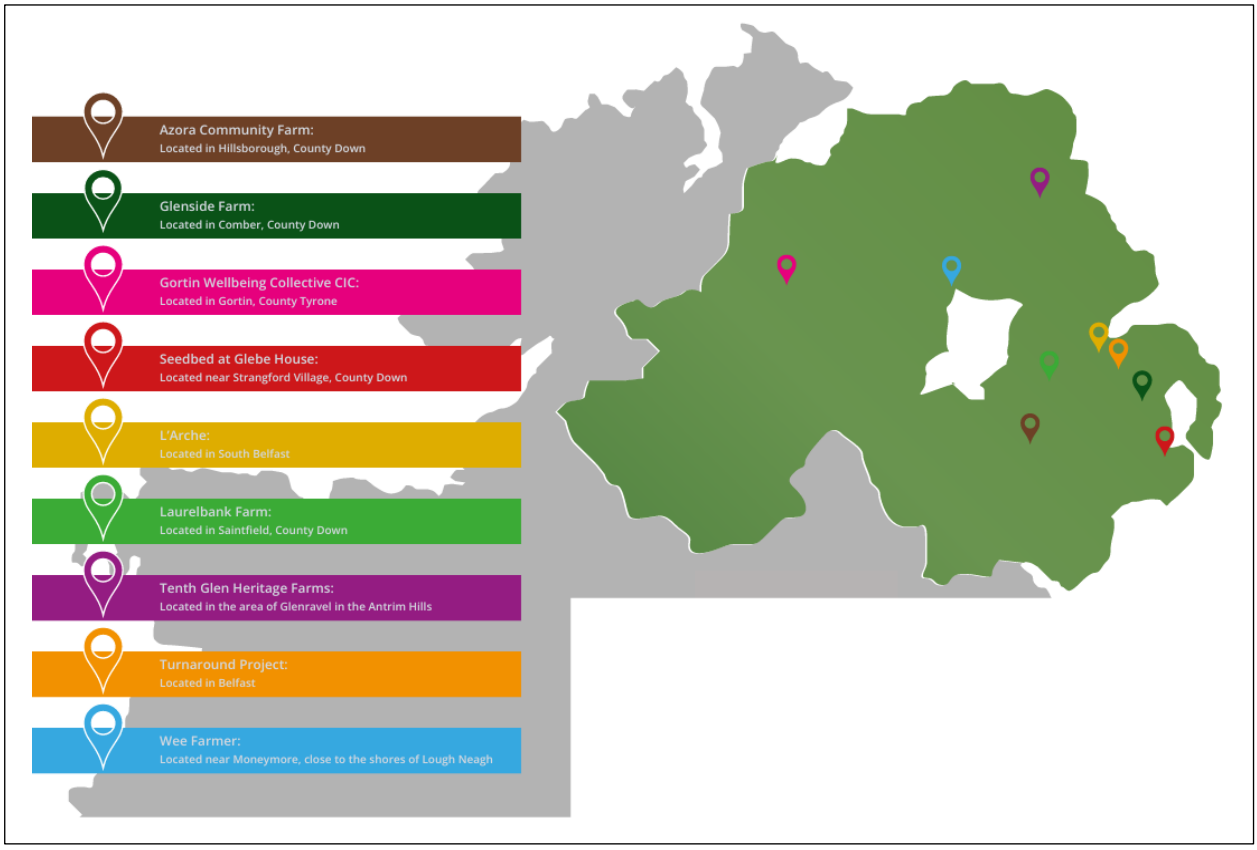
Sample

The nine community farming initiatives that participated in the CCF project were spread across three of Northern Ireland's six counties (Figure 1). One was in Co. Tyrone, four were in Co. Antrim and four were based in Co. Down. Their legal structures varied from limited company and community interest company to community benefit society and unincorporated constituted group. Six of the groups owned land, two rented land and one did not have access to any land. Overall, the nine community farming projects made 37 acres of land available for community initiatives, with 7.4 acres given to food production and 17.2 acres to conservation. During the two years of the CCF project, 1,587 individuals engaged with the projects, contributing 15,000 volunteer hours. Three of the groups sold goods through farm-gate sales, while one had a CSA operation and another an agritourism operation. Further information on each of the nine projects, including case studies for each, can be found in the CCF final report (Cultivating Community Farming, 2024).

Ethics and Consent

Ethics are an integral part of conducting research, regardless of the institutional setting (Newing et al., 2011). Central to ethics is the principal of informed consent. Accordingly, informed consent was ob-

Figure 1. Map of Cultivating Community Farming Projects



tained by all project impact assessment and stakeholder focus group participants. Overall ethical approval and review was provided by the CCF project leads and their respective boards in collaboration with the project impact assessment consultant.

Definitions Focus Group

Following the research guidelines of Newing et al. (2011), a focus group with representatives from the nine participating groups, as well as three of the authors, was conducted in September 2023. Keywords, phrases, terms, and references that participants felt defined community farming were collated. Following the approach of Parsons et al. (2010) to defining care farming in the UK, the authors refined and edited the material further to ensure brevity and clarity, and to create collaborative definitions of community farming and of a community farm.

Social Return on Investment Analysis

Initially developed to evaluate the social value of grant requests in the U.S., SROI has become a common methodology globally, including, for example, in collaborations between nonprofit and public-sector organizations in the UK (Corvo et al., 2022). Its ability to price previously undervalued social and environmental goods in a single econometric has been recognized (Maldonado & Corbey, 2016). However, it has been criticized as an example of the "market society," the financialization of day-to-day life (Roy & Teasdale, 2022). Arvidson et al. (2013) noted a tension in the approach between its participatory nature and its utility in competing for limited grants between third-sector organizations. Nevertheless, despite these concerns, its role has been cited as an important tool for management, accountability, participation, and knowledge generation.

The SROI methodology followed the six stages of the National Social Value Standard: scope

and identify stakeholders; map outcomes, evidence and value outcomes; establish impact; calculate SROI; report and utilize data (National Social Value Standard, 2022). The objective of stages 1–2 is the Theory of Change definition, while the focus for stages 3–5 is the monetization of outcomes. This mixed-method approach allowed both quantitative and qualitative data to be obtained.

For stages 1–2, a semi-structured interview and a detailed web-based survey were undertaken with each participating CCF project from April to August 2023. The interviews and surveys were all completed with the leaders of each project, as they had the best overview of the project's history and development. A focus group with the nine participating groups, and three of the authors, to refine the Theory of Change (ToC) and outcomes frameworks, as well as the social, environmental, and economic outcomes of the CCF interventions reported by each group, was held in September 2023. Based on these approaches, and across social, environmental and economic categories, 12 outcomes were selected (Table 1).

For stages 3–5 of the SROI methodology, metrics were selected for the12 outcomes, of which 11 were monetized and one was nonmonetized. They drew on a number of sources of validated quantification (Banks & Dias, 2023; HM Treasury, 2022; National Social Value Standard, 2022). A nonmonetized measure of volunteering—hours—was also included to provide a contrasting lens through which to view the impact of volunteerism. First, the metrics were assigned indicators, an effect length, and, for the 11 monetized measures, a financial proxy. Next, to establish the impact of the 11 monetized metrics, discounting with four context-related factors was applied: drop-off, displacement, attribution, and deadweight. In the final stage of the outcome monetization phase, and following the National Social Value Standard (2022), Loop Software was used to compute the SROI figures, across each of the three categories and overall (Loop, 2024). This also involved including the nonmonetized volunteering measure in the calculation. Additional technical information on the SROI approach undertaken is in the Supplementary Information. Stage 6 involved the production of the project report (Cultivating Community Farming, 2024), and its sharing via events, social media and networks.

Despite adherence to the methodology, and efforts throughout the study to increase data reliability, the analysis has two related limitations that may impact the robustness and usefulness of findings. First, standardization: given the nature of the study, there were limited baselines available for some of the participating groups prior to the start of CCF intervention, with no standardized impact measurement tool in use from the outset of the CCF project. Subsequently, some of this initial data could only be estimated retrospectively. Second, subjectivity: the study relied on the data and outcomes reported by each participating group, their beneficiaries, and the stakeholders that they engaged with. While training on data collection and impact measurement were provided as part of the CCF project, these self-reported results were not independently verified.

Results and Discussion

Definitions

Based on the focus group data, community farming was defined as a process of collaborative transformation at the intersection of land, community and enterprise. Similarly, a community farm was defined as a place of collaborative transformation at the intersection of land, community and enterprise.

The definitions of community farming and community farm articulated by the CCF project participants and coordinators focus on three distinct asset classes that are correlated with community farming: land, or natural capital; enterprise, or physical and financial capital; and community, or human and social capital (Figure 2). In this regard, community farming has parallels with the widely utilized Sustainable Livelihoods framework, which has been used to assess the impact of CSAs in England (Saltmarsh et al., 2011). This definition also differs from the various definitions of CSA (CSA UK Network 2024; Henderson & Van En, 2007; Saltmarsh et al., 2011), which focus more explicitly on the production and consumption of food and on the allocation of risk, reward, and responsibility in this process.

Table 1. Social Return on Investment Analysis Metrics, Categories, and Outcomes

Metric	Subcategory 1	Subcategory 2	Subcategory 3	Description
1. Community, charity, and other stakeholders	Community health	Community mental health	Lower impact intervention	Interventions delivered to the community that improve their mental health.
2. Supply chain	SME, start-up, VCSE, or mutuals support (monetized)	Full intervention	N/A	The number of stakeholders who attended a relevant event, i.e., for events relating to: small and medium-sized enterprises (SMEs); start-ups; voluntary, community and social enterprise organizations (VCSEs); and mutuals benefiting from development support, seminars; and market/supplier engagement events between reporting periods.
3. Community, charity, and other stakeholders	Site visit (monetized)	Hourly	N/A	A scheduled visit to a work site by school children or anyone who benefits from it in terms of education or employability.
4. Environmental	Biodiversity (monetized)	N/A	N/A	Number of net biodiversity units created, representing habitat creation or protection. Natural England's Biodiversity Metric 3.0 spreadsheet can be used to calculate the number of units.
5. Environmental	Material use (monetized)	Organic	Compost derived from food and garden waste	Net reduction (+) in material use or net increase (-), against the relevant baseline.
6. Community, charity, and other stakeholders	Loneliness (monetized)	N/A	N/A	Reduction in loneliness per person as a result of a specific intervention, which could be in a community or within a workforce. This is assuming a point shift in a 5-point scale of loneliness.
7. Community, charity, and other stakeholders	Community learning interventions (monetized)	Hourly	N/A	Community training opportunities created, other than apprenticeship. Where there is a qualification involved, the qualification metrics should be used.
8. Community, charity, and other stakeholders	Green space (monetized)	Use of countryside green space	N/A	Number of individuals living in or within close proximity to desirable natural areas and environmental resources, such as private gardens and designated areas, which have been protected or created by the intervention.
9. Community, charity, and other stakeholders	Green space (monetized)	Use of urban green space	N/A	Number of individuals living in or within close proximity to desirable natural areas and environmental resources, such as private gardens and designated areas, which have been protected or created by the intervention.
10. Community, charity, and other stakeholders	Volunteering (nonmone-tized)	No. of person-hours spent protecting and improving the environment	N/A	Number of person-hours spent protecting and improving the environment.
11. Community, charity, and other stakeholders	Volunteering (monetized)	Annually—several times a year	N/A	Time spent, unpaid, doing something that aims to benefit the environment or someone (individuals or groups) other than, or in addition to, close relatives.
12. Community, charity, and other stakeholders	Co-design/ co-creation with stake-holders (monetized)	N/A	N/A	Co-design/co-creation implies a high degree of citizen control (i.e., independent community-based initiatives that help others to develop and carry out their own plans. Examples include co-design and co-production). The default assumption is a duration of one year or regular (1–2 monthly) meetings.

Based on HM Treasury, 2022 & National Social Value Standard, 2022.

Through the procedural element of this definition—"collaborative transformation"—the definition is more akin to the eight definitions of social farming reviewed by Jarábková et al. (2022).

Figure 2. Elements of Community Farming

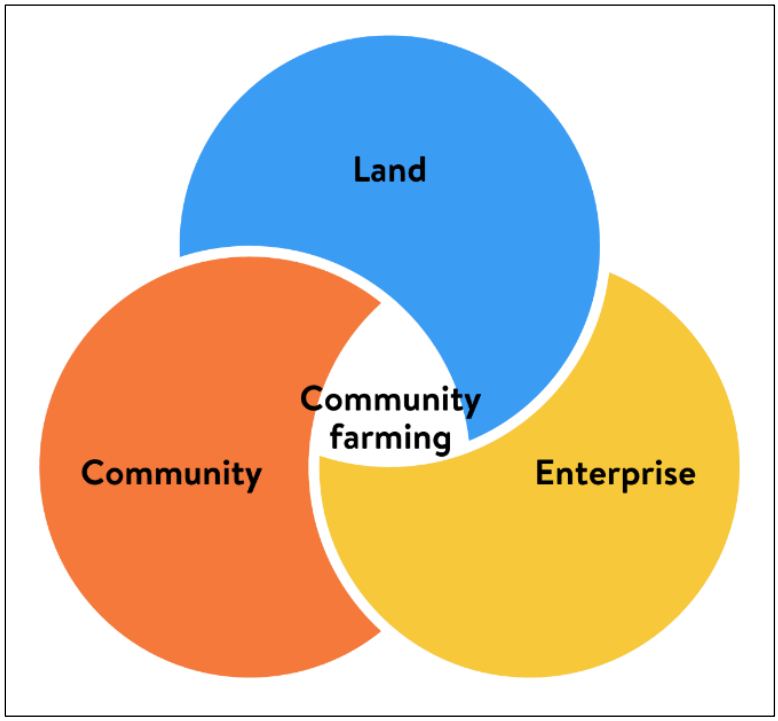
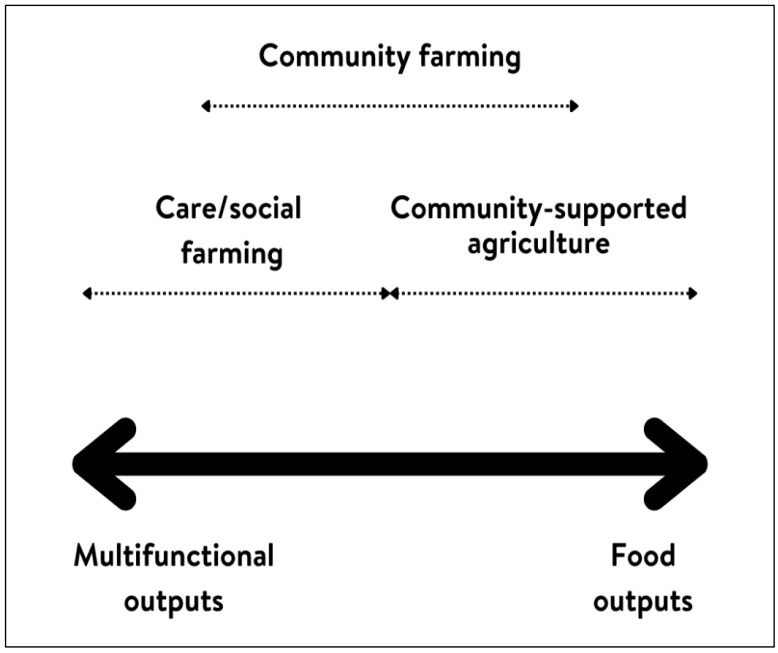


Figure 3. Continuum of Community Farming



It also has parallels with Parsons et al.'s (2010) definition of care farming as "the therapeutic use of farming practices," although only a few of the nine study projects offered formal care farming programs for disadvantaged groups. This study's definitions of community farming and community farm therefore suggest that they may be continuum or umbrella terms, which can incorporate both more multifunctional approaches like care/social farming, and more food production-oriented schemes such as CSA (Figure 3).

Social Return on Investment

Table 2 details the SROI results by metric and category. The SROI analysis demonstrated that for every £1 invested in community farming through the CCF project, £3.52 of value was generated, equating to an SROI ratio of 3.52:1. In comparison to other SROI results, this was lower than for a community food project in England (Courtney, 2014), within the range of values for 20 greenspace projects in Scotland (Greenspace Scotland, 2013), and higher than an urban greenspace project in Italy (Vasiliu et al., 2024).

Overall, the £100,000 CCF investment created £351,630 of project value, including £316,242 of social value, £28,007 of environmental value, and £7,381 of economic value (Figures 4 and 5). The vast majority of the total social value of £316,242 was attributed to the social impact generated by the CCF intervention. This encompassed the positive changes in improved community mental health (£18,160); reduced loneliness (£60,464); use of countryside (£117,852) and urban (£50,184) green spaces; (monetized) volunteering (£22,578); and project co-design with stakeholders (£45,515) (Table 2). It

Table 2. Social Return on Investment Analysis Metrics, Categories and Results

Metric	Subcategory 1	Subcategory 2	Subcategory 3	Achieved	Achieved social (£)	Achieved environmental (£)	Achieved economic (£)	Achieved value (£)
1. Community, charity, and other stakeholders	Community health	Community mental health	Lower impact intervention	15	18,160	0	2,412	20,572
2. Supply chain	SME, start-up, VCSE, and mutuals support (monetized)	Full intervention	N/A	18	247	0	2,822	3,069
3. Community, charity, and other stakeholders	Site visit	Hourly	N/A	30	406	0	0	406
4. Environmental	Biodiversity	N/A	N/A	2	0	27,124	0	27,124
5. Environmental	Material use	Organic	Compost derived from food and garden waste	50	0	883	0	883
6. Community, charity, and other stakeholders	Loneliness	N/A	N/A	18	60,464	0	2,147	62,612
7. Community, charity, and other stakeholders	Community learning interventions (monetized)	Hourly	N/A	50	836	0	0	836
8. Community, charity, and other stakeholders	Green space (monetized)	Use of countryside green space	N/A	7	117,852	0	0	117,852
9. Community, charity, and other stakeholders	Green space (monetized)	Use of urban green space	N/A	2	50,184	0	0	50,184
10. Community, charity, and other stakeholders	Volunteering (nonmonetized)	No. of person-hours spent protecting and improving the environment	N/A	15,000	0	0	0	0
11. Community, charity, and other stakeholders	Volunteering (monetized)	Annually—several times a year	N/A	18	22,578	0	0	22,578
12. Community, charity, and other stakeholders	Co-design/co-creation with stakeholders	N/A	N/A	10	45,515	0	0	45,515

SMEs = small and medium-sized enterprises; VCSEs = voluntary, community, and social enterprise organizations

also captured the benefit of the significant amount of (nonmonetized) volunteering involved: 15,000 hours (Table 2), addressing volunteer hours as an engagement metric. Similarly, the monetized version of volunteering assigns economic value to those hours and other general volunteering, thereby offering different lenses through which to view the impact of volunteerism. The significant percentage of the total social value devoted to social impact underscored the effect the CCF intervention had on individuals and communities involved with the nine community farming projects across NI. It also demonstrates the significant social benefits that accrue from accessing green spaces, a trend noted in the literature on both CSA (Saltmarsh et al., 2011) and care/social farming (Jarábková et al., 2022).

This finding echoes studies in the literature that point to the importance of connection between community farming participants and a specific piece of land or their local environment in general (Hassink et al., 2020; Liu et al., 2017; Ravenscroft et al., 2012; Ravenscroft et al., 2013). It also highlights its potential wellbeing benefits for a wide range of groups (Andreatta, 2006; Parsons et al., 2010; Rossi & Woods, 2021; Sitaker et al., 2021). Furthermore, there is overlap with the development of bonding social capital, where relationships are developed within a community of CSA members, and bridging social capital, where connections develop between members of a community farm and of other communities, as noted in some British CSAs (Furness et al., 2022). However, in our study it was not possible to ascertain the direction of causality, i.e., whether community farming causes or is caused by high levels of social capital. Finally, the significant bias in this study toward social value creation corresponds with the definition's placement of community farming on a civic agriculture continuum that can incorporate both food-focused and more multifunctional community farming approaches.

By contrast, environmental impact accounted for a much smaller portion of the total social value (Figures 4 and 5). Almost all of this value, £27,123, was due to biodiversity gains through the setting aside of land for conservation, while £883 was from on-site compost production (Table 2). The £28,007 assigned to environmental impact there

Figure 4. Social Return on Investment Impact by Category

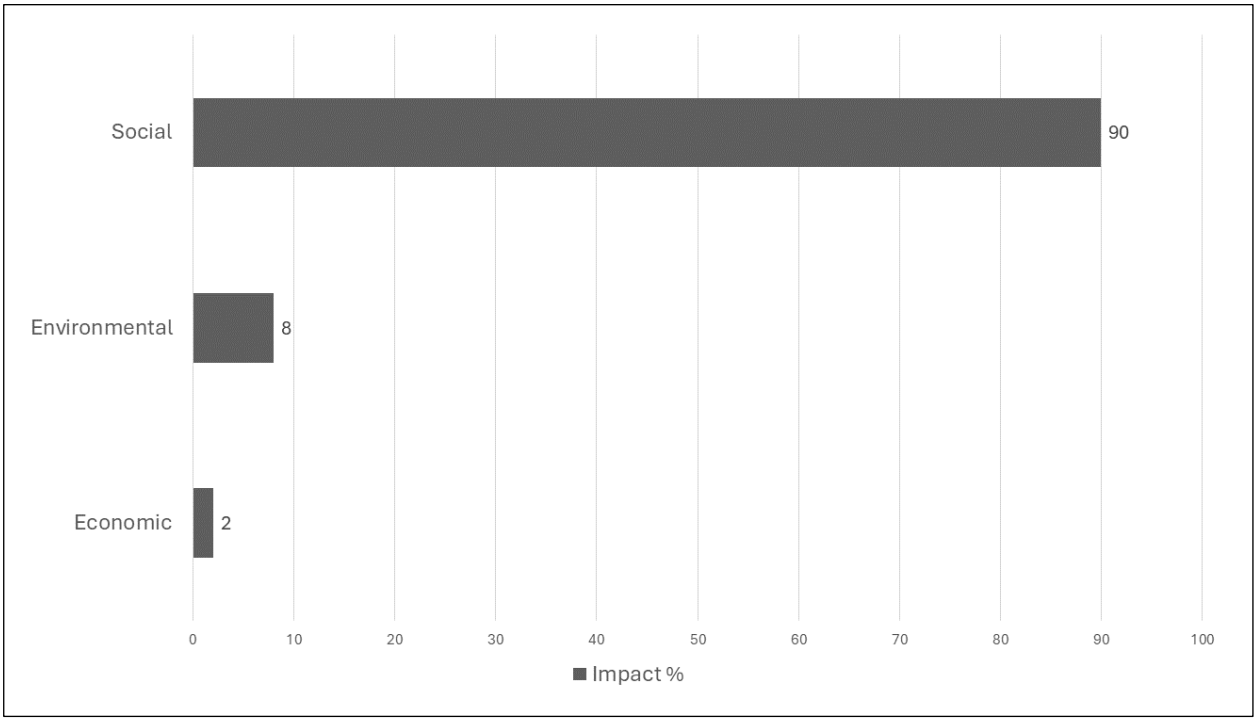
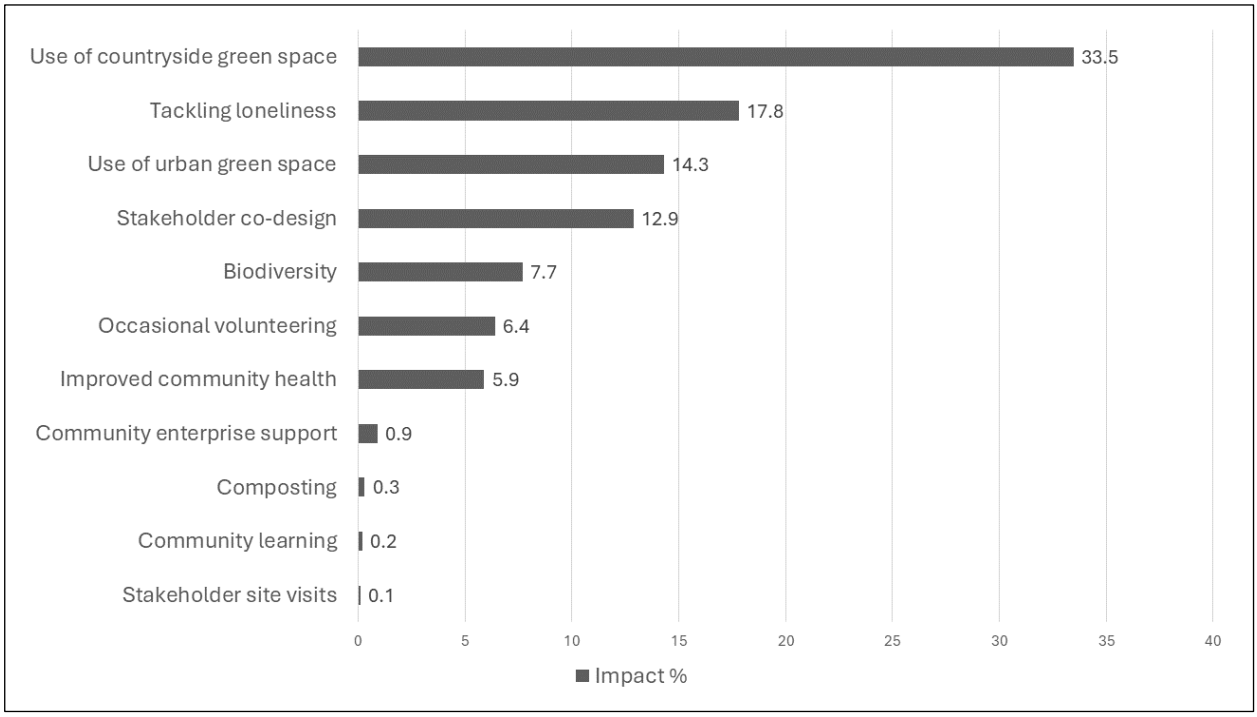


Figure 5. Social Return on Investment Impact by Indicator



fore represents a tangible commitment to ecologically responsible farming, but was lower than expected given the frequency of environmental considerations among the project participants and its equal weighting in the definition. In addition, the setting aside of land for community farming purposes prevented its use for other, more environmentally damaging activity. However, the primary limit on environmental value in this study is likely to be the relatively short-term impact measurement cycle of two years, with environmental benefits in agro-ecosystems typically accruing over longer time periods (Albanito et al., 2022).

Overall, while environmental sustainability can be a key component of community farming (Henderson & Van En, 2007; Saltmarsh et al., 2011; Samoggia et al., 2019), and the environment—or land—was one of the three pillars of this study's definition, this finding is a further indication that what defines community farming most may be its social elements. This study also raises questions about the extent to which community farming can contribute to a more circular and sustainable agri-food system, whether in Northern Ireland (NFFN, 2023) or at the European level (van Zanten et al., 2023), although longer time periods are required to accurately capture the full environmental benefits from the study's nine projects.

The economic impact made up a very small fraction of the total social value of the CCF intervention (Figures 4 and 5). As well as economic contributions toward improved community well-being (£2,412) and decreased loneliness (£2,147), a significant element was the enterprise skills and capacity developed through support delivered to project participants (£2,822) (Table 2). The £7,381 allocated to economic impact emphasizes the initiative's very limited role in bolstering the economic fabric of local communities, although enterprise is one of the three pillars of this study's definition. However, as with the environmental value, economic impact reflects the early developmental stage of many of the projects in the CCF initiative. Typical economic challenges faced by the nine groups included low margins and difficult routes to market, for example. As with other similar incubator or accelerator projects, it can take a considerable amount of time for new enterprises to become established (Smith et al., 2019). Similarly, as White

(2015) has noted for CSAs, many struggle to achieve financial resilience and security.

This relatively low amount of economic value in this sample contrasts with the greater economic impacts of CSA operations in England (Saltmarsh et al., 2011) and Wales (Little & Giles, 2020), and the greater focus on food production in CSA projects generally (CSA UK Network, 2024; Henderson & Van En, 2007). Food production is also an under-researched aspect of care/social farming projects, with limited data available on its economic value in these systems (Jarábková et al., 2022; Nazzaro et al., 2021; Nicolosi et al., 2021; Tulla & Vera, 2019). The limited economic value generated in this study's nine projects over two years may also restrict the attractiveness of community farming as a form of diversification to traditional family-farming businesses, for whom financial and economic considerations are often central (Piccoli et al., 2021; Pole & Gray, 2013; Samoggia et al., 2019).

Conversely, however, community farming may prove more attractive precisely because of its creation of greater social and, to a lesser extent, environmental value to the majority of people who have no experience of the business side of farming. In this cross-section of projects, success did not depend primarily on economic value, despite the enterprising and income-generating activities of all nine CCF groups. This raises a question about the assumption that community farming needs to make a profit in order to carry the social and environmental benefits that it has. Our results suggest that group members may be willing to participate in this activity as long as it has a minimum level of economic sustainability.

However, the overall SROI value from this study, and the environmental and economic impact as well, is likely to be an understatement for two reasons (National Social Value Standard, 2022). First, several outcomes and stakeholders were excluded from the analysis because there were limits to the number of variables that could be considered and certain variables were identified as most suitable by the participating groups. Second, it is likely that financial proxies have underestimated the value of some outcomes, due to the subjective nature of monetization in SROI methodology. For example, not all impacts can be monetized robustly, and the quality of some of the data from some of the participating projects limited the scope of analysis. These factors in the understatement of SROI value due to these methodological reasons are in keeping with the broader critiques and limitations of the SROI methodology (Arvidson, et al., 2013; Corvo et al., 2022; Maldonado & Corbey, 2016; Roy & Teasdale, 2022).

Conclusions

This study's definitions of community farming and community farms illustrate the interconnection of land, community, and enterprise (Figure 2) and of the role of collaboration in utilizing them in tandem. This provides an articulation of the community farming process that has been lacking in previous discussions of the concept (Davenport & Mishtal, 2019; Heise et al., 2017; Liu et al., 2017; Ravenscroft et al., 2013). This definition also suggests that community farming can act as a continuum or umbrella term that incorporates both more multifunctional approaches like care/social farming, and more food production-oriented schemes such as CSA (Figure 3). In fact, as a spectrum of approaches that connect communities with farming and farming with communities, community farming provides a definition and terminology that can capture this breadth of diversity.

However, in this sample of nine early-stage Northern Irish community farming ventures, a considerable majority of the total SROI value was attributed to social value, with limited environmental and economic value. This social value was primarily based on the mental health, volunteering, green space access, and stakeholder co-design aspects of the projects. This affirms the importance of social impact and wellbeing benefits noted in both care/social farming and CSAs (Furness et al., 2022; Haney et al., 2015; Hassink et al., 2020; Jarábková et al., 2022; Rossi & Woods, 2021; Sitaker et al., 2021). Nevertheless, the early-stage nature of many of the projects, and the time-limited impact measurement period, likely affected valuation of the environmental and economic dimensions, as is common in similar incubator-type programs (Smith et al., 2019). Longitudinal assessments of

social, environmental, and economic value would provide a clearer indication of sustained value creation, which could lead to greater understanding of how food production in community farming ventures could contribute to a more community-based circular food system in Northern Ireland (NFFN, 2023) and elsewhere (van Zanten et al., 2023).

Future research could therefore focus on exploring the environmental and economic aspects of community farming in NI and beyond, while the definition could catalyse further debate, research, practice, and advocacy among stakeholders. Additional advocacy work is also required to provide policy support for the development and expansion of community farming in NI, due to its relative sparseness to date (Hanson & Walsh, 2024). The social capital causality—and its direction—remain an open question in this context, despite some work on social capital development in British CSAs (Furness et al., 2022). Applying the work of Mouw (2006) and Chen (2022) to explore social capital in community farming could help to explicate these relationships further.

Nevertheless, despite the caveats discussed above and a definition that incorporates the three pillars of sustainability, the value generated in the two-year period among the nine participating projects was primarily social. In this instance, there may be more "community" than "farming" in community farming. Yet this accumulation of collaborative and innovative social value may still help to accelerate the development of community-based circular food systems in Northern Ireland and beyond.

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References

Albanito, F., Jordon, M., Abdalla, M., Mcbey, D., Kuhnert, M., Vetter, S., Oyesiku-Blakemore, J. & Smith, P. (2022). *Agroecology–A rapid evidence review. Report to the UK Climate Change Committee*. University of Aberdeen. https://www.theccc.org.uk/wp-content/uploads/2022/11/Agroecology-%E2%80%93-a-Rapid-Evidence-Review-University-of-Aberdeen.pdf

Andreatta, S. L. (2006). When a good project goes awry: Community re-connecting with an urban farm. *Urban Anthropology and Studies of Cultural Systems and World Economic Development*, *35*(1), 75–103. https://www.jstor.org/stable/40553490

Arvidson, M., Lyon, F., McKay, S., & Moro, D. (2013). Valuing the social? The nature and controversies of measuring social return on investment (SROI). *Voluntary Sector Review*, *4*(1), 3–18. https://doi.org/10.1332/204080513X661554

Banks, J., & Dias, M. C. (2023). A symposium on Understanding Society, the UK Household Longitudinal Survey: Preface. *Fiscal Studies*, *44*(4), 311. https://doi.org/10.1111/1475-5890.12358

Bonfert, B. (2022). 'What we'd like is a CSA in every town.' Scaling community supported agriculture across the UK. *Journal of Rural Studies*, *94*, 499–508. https://doi.org/10.1016/j.jrurstud.2022.07.013

Bougherara, D., Grolleau, G., & Mzoughi, N. (2009). Buy local, pollute less: What drives households to join a community supported farm? *Ecological Economics*, *68*(5), 1488–1495. https://doi.org/10.1016/j.ecolecon.2008.10.009

Chen, Y. (2022). *Causal effects of social capital: Labor markets and beyond.* Palgrave Macmillan. https://doi.org/10.1007/978-981-19-5912-7_3

Communities Living Sustainably. (2015). *Which tool to use? A guide for evaluating health and wellbeing outcomes for community growing programmes.* Federation of City Farms and Community Gardens, Garden Organic, Groundwork & Sustain. https://www.groundwork.org.uk/wp-content/uploads/2022/02/Sustain-Guide-_Which-Tool-To-Use_-Evaluating-Health-and-Wellbeing-Outcomes.pdf

Community Supported Agriculture Network UK. (n.d.). *What is CSA?* https://communitysupportedagriculture.org.uk/wp-content/uploads/2018/06/W.pdf

Community Supported Agriculture Network UK. (2024). *Home.* https://communitysupportedagriculture.org.uk/

Corvo, L., Pastore, L., Mastrodascio, M., & Cepiku, D. (2022). The social return on investment model: A systematic literature review. *Meditari Accountancy Research*, *30*(7), 49–86. https://www.emerald.com/insight/content/doi/10.1108/MEDAR-05-2021-1307/full/pdf

Courtney, P. (2014). *The Local Food programme: A social return on investment approach. Final report to the Royal Society of Wildlife Trusts. Technical Report. Local Food.* University of Gloucestershire, Countryside and Community Research Institute. https://eprints.glos.ac.uk/2637/1/The%20Local%20Food%20programme%20-%20A%20Social%20Return%20on%20Investment%20Approach.pdf

Coventry University. (2018). *Co-developing a social impact toolkit for community food businesses.* https://www.coventry.ac.uk/research/research-directories/current-projects/2019/social-impact-toolkit-for-community-food-businesses/

CSA Network UK. (2018). *What is CSA?* https://communitysupportedagriculture.org.uk/wp-content/uploads/2018/06/W.pdf

Cultivating Community Farming. (2024). *Community farming in Northern Ireland: A catalyst for change. Impact report 2022–2024.* Co-operative Alternatives & Jubilee Community Benefit Society. https://www.coopalternatives.coop/cultivating-community-farming/

Davenport, S. G., & Mishtal, J. (2019). Whose sustainability? An analysis of a community farming program's food justice and environmental sustainability agenda. *Culture, Agriculture, Food and Environment*, *41*(1), 56–65. https://doi.org/10.1111/cuag.12227

Furness, E., Sanderson Bellamy, A., Clear, A., Mitchell Finnigan, S., Meador, J. E., Mills, S., Milne, A., & Sharp, R. (2022). Communication and building social capital in community supported agriculture. *Journal of Agriculture, Food Systems, and Community Development*, *12*(1), 63–78. https://doi.org/10.5304/jafscd.2022.121.009

Gomez, A. A., Swete Kelly, D. E., Syers, J. K., & Coughlan, K. J. (1997). Measuring sustainability of agricultural systems at the farm level. In A. J. Jones & J. W. Doran (Eds.), *Methods for assessing soil quality* (SSSA special pub. no. 49) (pp. 401–410). Soil Science Society of America. https://doi.org/10.2136/sssaspecpub49.c26

Greenspace Scotland. (2011). *Social Return on Investment: Working with community groups.* https://drive.google.com/file/d/1_i5TcSgwlUEjEIOertjbZvKtg3ehjECj/view

Greenspace Scotland. (2013). *Capturing the changes that count. A review of Greenspace Scotland's SROI programmes and projects.* https://drive.google.com/file/d/1OgWwOlly8bXpV0u4HnrYKcjVfmJqLML9/view

Haney, J. M., Ferguson, M. D., Engle, E. W., Wood, K., Olcott, K., Luloff, A. E., & Finley, J. C. (2015). Defining the "C" in community supported agriculture. *Journal of Agriculture, Food Systems, and Community Development*, *5*(3), 27–43. https://doi.org/10.5304/jafscd.2015.053.009

Hanson, J., & Walsh, A. (2024). *Cultivating good relations through social and community farming. ARK policy brief.* ARK. https://www.ark.ac.uk/ARK/sites/default/files/2024-09/policybrief31.pdf

Hassink, J., Agricola, H., Veen, E. J., Pijpker, R., de Bruin, S. R., van der Meulen, H. A., & Plug, L. B. (2020). The care farming sector in the Netherlands: A reflection on its developments and promising innovations. *Sustainability*, *12*(9), Article 3811. https://doi.org/10.3390/su12093811

Heise, T. L., Romppel, M., Molnar, S., Buchberger, B., van den Berg, A., Gartlehner, G., & Lhachimi, S. K. (2017). Community gardening, community farming and other local community-based gardening interventions to prevent overweight and obesity in high-income and middle-income countries: Protocol for a systematic review. *BMJ Open*, *7*(6), Article e016237. https://doi.org/10.1136/bmjopen-2017-016237

Henderson, E., & Van En, R. (2007). *Sharing the harvest: A citizen's guide to community supported agriculture* (2nd ed.). Chelsea Green.

HM Treasury. (2022). *The Green Book: Central government guidance on appraisal and evaluation*. https://assets.publishing.service.gov.uk/media/6645c709bd01f5ed32793cbc/Green_Book_2022__updated_links_.pdf

Hollins, C. (2012). *A guide to setting up and running community owned farms: How the lessons of Fordhall community land initiative can help and inspire others.* Plunkett Foundation. https://plunkett.co.uk/wp-content/uploads/Lessons_from_fordhall_a_guide_to_community_farms-ilovepdf-compressed.pdf

Hudcová, E. (2022). Social farms as social enterprises in the Czech Republic. *Social Entrepreneurship Review*, *2*, 60–75. https://doi.org/10.15678/SER.2022.2.04

Jarábková, J., Chreneková, M., & Varecha, L. (2022). Social farming: A systematic literature review of the definition and context. *European Countryside*, *14*(3), 540–568. https://doi.org/10.2478/euco-2022-0027

Jubilee Community Benefit Society. (2024). *Jubilee is a Christian creation care organisation*. https://www.jubilee.coop

Kaika, A., & Racelis, A. (2021). Civic agriculture in review: Then, now, and future directions. *Journal of Agriculture, Food Systems, and Community Development*, *10*(2), 551–572. https://doi.org/10.5304/jafscd.2021.102.030

Latruffe, L., Diazabakana, A., Bockstaller, C., Desjeux, Y., Finn, J., Kelly, E., & Uthes, S. (2016). Measurement of sustainability in agriculture: A review of indicators. *Studies in Agricultural Economics*, *118*(3), 123–130. http://repo.aki.gov.hu/id/eprint/2092

Little, T. & Giles, N. (2020). *Evaluation of the impact of Community Supported Agriculture in Wales.* CSA Network UK, Tyru Cymru (Grow Wales), Social Farms & Gardens. https://communitysupportedagriculture.org.uk/wp-content/uploads/2020/07/CSA-Evaluation-Full-report-JULY-2020.pdf

Liu, P., Gilchrist, P., Taylor, B., & Ravenscroft, N. (2017). The spaces and times of community farming. *Agriculture and Human Values*, *34*(2), 363–375. https://doi.org/10.1007/s10460-016-9717-0

Loop. (2024). *Social value measurement software*. https://loop.org.uk/

Lyson, T. A. (2004). *Civic agriculture: Reconnecting farm, food, and community*. Tufts University Press.

Maldonado, M., & Corbey, M. (2016). Social return on investment (SROI): A review of the technique. *Maandblad Voor Accountancy en Bedrijfseconomie*, *90*(3), 79–86. https://mab-online.nl/article/31266/download/pdf/

McGlone, P., Dobson, B., Dowler, E. & Nelson, M. (1999). *Food projects and how they work*. Joseph Rowntree Foundation. https://www.researchgate.net/publication/237136343_Food_Projects_and_How_They_Work

Morris, D. (2019). *Valuing your impact: Cost benefit analysis Excel model user guide* (version 3.0). Social Farms & Gardens, & City Bridge Trust. [PDF in possession of the lead author.]

Mouw, T. (2006). Estimating the causal effect of social capital: A review of recent research. *Annual Review of Sociology*, *32*, 79–102. https://doi.org/10.1146/annurev.soc.32.061604.123150

National Social Value Standard. (2022). *National Social Value Standard guidance document*. The 55 Group (Holdings) Limited. https://nationalsvs.co.uk/wp-content/uploads/2022/10/National-Social-Value-Standard-Guide.pdf

Nature Friendly Farming Network. (2023). *Striking the balance: Food, farming and the countryside*. https://www.nffn.org.uk/assets/reports/nffn-striking-a-balance-report-7-2.pdf

Nazzaro, C., Uliano, A., & Marotta, G. (2021). Drivers and barriers towards social farming: A systematic review. *Sustainability*, *13*(24), Article 14008. https://doi.org/10.3390/su132414008

Newing, H., Eagle, C., Puri, R. K., & Watson, C. W. (2011). *Conducting research in conservation. A social science perspective*. Routledge.

New Philanthropy Capital. (2022a). *The code of impact good practice.* https://www.thinknpc.org/resource-hub/the-code-of-good-impact-practice/

New Philanthropy Capital. (2022b). *Funders' principles and drivers of good impact practice.* https://www.thinknpc.org/wp-content/uploads/2019/03/https___www.thinknpc.org_wp-content_uploads_2022_06_Funders-principles-and-drivers-of-good-impact-practice-pdf-1.pdf

Nicolosi, A., Laganà, V. R., Di Gregorio, D., & Privitera, D. (2021). Social farming in the virtuous system of the circular economy. An exploratory research. *Sustainability*, *13*(2), Article 989. https://doi.org/10.3390/su13020989

Ostrom, M. R. (2007). Community supported agriculture as an agent of change: Is it working? In C. C. Hinrichs & T. A. Lyson (Eds.), *Remaking the North American food system: Strategies for sustainability* (pp. 99–120). University of Nebraska Press.

Parsons, S., Wilcox, D., & Hine, R. (2010). What care farming is. In I. Darnhofer & M. Grötzer (Eds.), *Building sustainable rural futures: The added value of systems approaches in times of change and uncertainty* (pp. 230–238). Proceedings of the 9th European IFSA Symposium, July 4–7, 2010, Vienna. http://www.stparsons.co.uk/files/what_care_farming_is.pdf

Piccoli, A., Rossi, A., & Genova, A. (2021). A socially-based redesign of sustainable food practices: Community supported agriculture in Italy. *Sustainability*, *13*(21), Article 11986. https://doi.org/10.3390/su132111986

Pole, A., & Gray, M. (2013). Farming alone? What's up with the "C" in community supported agriculture. *Agriculture and Human Values*, *30*(1), 85–100. https://doi.org/10.1007/s10460-012-9391-9

Ravenscroft, N., Moore, N., Welch, E., & Church, A. (2012). *Connecting communities through food: The theoretical foundations of community supported agriculture in the UK* (CRESC Working paper no. 115). Centre for Research on Socio-Cultural Change, University of Manchester. https://cris.brighton.ac.uk/ws/portalfiles/portal/366697/WP115+final+%281%29.pdf

Ravenscroft, N., Moore, N., Welch, E., & Hanney, R. (2013). Beyond agriculture: The counter-hegemony of community farming. *Agriculture and Human Values*, *30*(4), 629–639. https://doi.org/10.1007/s10460-013-9437-7

Reig-Martínez, E., Gómez-Limón, J. A., & Picazo-Tadeo, A. J. (2011). Ranking farms with a composite indicator of sustainability. *Agricultural Economics*, *42*(5), 561–575. https://doi.org/10.1111/j.1574-0862.2011.00536.x

Rossi, J., & Woods, T. A. (2021). Incentivizing wellness through community supported agriculture: Reflections on shareholder impacts of an employer-based CSA voucher program. *Journal of Agriculture, Food Systems, and Community Development*, *11*(1), 27–44. https://doi.org/10.5304/jafscd.2021.111.005

Roy, M. J., & Teasdale, S. (2022). Monetising social impact: A critique of the 'financialisation' of social value. In R. Hazenberg & C. Paterson-Young (Eds.), *Social impact measurement for a sustainable future: The power of aesthetics and practical implications* (pp, 211–227). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-83152-3_11

Rural Support. (2024). *Rural Support*. https://www.ruralsupport.org.uk

Ryan, M., Hennessy, T., Buckley, C., Dillon, E. J., Donnellan, T., Hanrahan, K., & Moran, B. (2016). Developing farm-level sustainability indicators for Ireland using the Teagasc National Farm Survey. *Irish Journal of Agricultural and Food Research*, *55*(2), 112–125. https://www.jstor.org/stable/26194214

Saltmarsh, N., Meldrum, J. & Longhurst, N. (2011). *The impact of community supported agriculture: Final report.* Soil Association CSA Support Project, Making Local Food Work. https://communitysupportedagriculture.org.uk/wp-content/uploads/2015/03/The-impact-of-community-supported-agriculture.pdf

Samoggia, A., Perazzolo, C., Kocsis, P., & Del Prete, M. (2019). Community Supported Agriculture farmers' perceptions of management benefits and drawbacks. *Sustainability*, *11*(12), Article 3262. https://doi.org/10.3390/su11123262

Sitaker, M., McCall, M., Wang, W., Vaccaro, M., Kolodinsky, J., Ammerman, A., Jilcott Pitts, S., Hanson, K., Smith, D., & Seguin-Fowler, R. (2021). Models for cost-offset community supported agriculture (CO-CSA) programs. *Journal of Agriculture, Food Systems, and Community Development*, *10*(4), 157–172. https://doi.org/10.5304/jafscd.2021.104.003

Smith, K. S., Ostrom, M., McMoran, D., & Carpenter-Boggs, L. (2019). Connecting new farmers to place, agroecology, and community through a bilingual organic farm incubator. *Journal of Agriculture, Food Systems, and Community Development*, *9*(A), 111–124. https://doi.org/10.5304/jafscd.2019.091.030

Social Farms & Gardens. (2023). *The case for a benchmark standard for community growing and allotment provision in Northern Ireland*. https://www.farmgarden.org.uk/sites/default/files/social_farms_and_gardens_ni_-_the_case_for_a_benchmark_standard_for_community_growing_and_allotment_provision_in_northern_ireland_report_0.pdf

Social Farms & Gardens. (2024). *Social Farms & Gardens*. https://www.farmgarden.org.uk

Takahashi, D., Fujie, T., & Senda, T. (2022). Conditions for collective land use by community-based organizations: Case study of community farming enterprises in Japan. *International Journal of the Commons*, *16*(1), 209–224. https://www.jstor.org/stable/48712063

Tulla, A. F., & Vera, A. (2019). Could social farming be a strategy to support food sovereignty in Europe? *Land*, *8*(5), Article 78. https://doi.org/10.3390/land8050078

van Zanten, H. H. E., Simon, W., van Selm, B., Wacker, J., Maindl, T. I., Frehner, A., Hijbeek, R., van Ittersum, M. K. & Herrero, M. (2023). Circularity in Europe strengthens the sustainability of the global food system. *Nature Food*, *4*(4), 320–330. https://doi.org/10.1038/s43016-023-00734-9

Vasiliu, E. E., Moghadam, S. T., Bisello, A., & Lombardi, P. (2024). Visionary nature-based solutions evaluated through social return on investment: The case study of an Italian urban green space. *Smart Cities*, *7*(2), 946–972. https://doi.org/10.3390/smartcities7020040

White, T. (2015). The branding of community supported agriculture: Collective myths and opportunities. *Journal of Agriculture, Food Systems, and Community Development*, *5*(3), 45–62. https://doi.org/10.5304/jafscd.2015.053.008

Wittman, H., Dennis, J., & Pritchard, H. (2017). Beyond the market? New agrarianism and cooperative farmland access in North America. *Journal of Rural Studies*, *53*, 303–316. https://doi.org/10.1016/j.jrurstud.2017.03.007

Zahm, F., Viaux, P., Vilain, L., Girardin, P., & Mouchet, C. (2008). Assessing farm sustainability with the IDEA method—From the concept of agriculture sustainability to case studies on farms. *Sustainable Development*, *16*(4), 271–281. https://doi.org/10.1002/sd.380