Kent Academic Repository

Matthews, Peter, Fish, Robert and Tzanopoulos, Joseph (2025) *Farmer identities and perceptions of public good provision.* Journal of Rural Studies, 120 . ISSN 0743-0167.

Downloaded from

https://kar.kent.ac.uk/110885/ The University of Kent's Academic Repository KAR

The version of record is available from

https://doi.org/10.1016/j.jrurstud.2025.103836

This document version

Publisher pdf

DOI for this version

Licence for this version

CC BY (Attribution)

Additional information

Versions of research works

Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in ***Title of Journal*** , Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

Enquiries

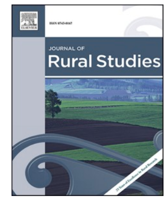
If you have questions about this document contact ResearchSupport@kent.ac.uk. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies).

Journal of Rural Studies 120 (2025) 103836

Contents lists available at ScienceDirect

Journal of Rural Studies

journal homepage: www.elsevier.com/locate/jrurstud



Farmer identities and perceptions of public good provision

Peter G. Matthews [a,b], Robert D. Fish [c], Joseph Tzanopoulos [a,b,*]

[a] Durrell Institute of Conservation and Ecology, University of Kent, Canterbury, Kent, CT2 7NR, United Kingdom
[b] Kent Interdisciplinary Centre for Spatial Studies, University of Kent, Canterbury, Kent, CT2 7NR, United Kingdom
[c] Centre for Environmental Policy, Imperial College London, 16-18 Prince's Gardens, London, SW7 1NE, United Kingdom

ARTICLE INFO

Keywords:
Agricultural policy
Agri-environment schemes
Farmers
Identity
Public goods

ABSTRACT

Agricultural policy discourse highlights the role of farmers as providers of public goods to justify agri-environmental measures. England's post-Brexit agricultural policy reform, with its originally stated aim of 'public money for public goods', presented an opportunity to assess how farmers respond to this idea. Informed by social psychological accounts of how farmer management reflects their identities, our thematic analysis of qualitative interviews with farmers in south-east England examines their interpretations of public goods and willingness to identify as public good providers. Farmer interpretations of public goods as both commodities and benefits helped them categorise certain farming outputs as distinct public goods. Views of public goods were also linked to the context in which farmers saw the concept being used. Farmer scepticism reflected familiar arguments for why farmer identities may resist change: farmers linked appeals to public goods to concerns over lost opportunities to generate symbolic capital underpinning good farmer identities and external challenges to productivist identities represented by a narrative around farming's environmental harms. While many farmers sought to reject this narrative, some saw opportunities to shift the narrative provided they could secure more direct public recognition of farming's diverse benefits. To achieve this, the interviews highlighted the value of making signals of farmer quality more accessible to non-farming audiences. Despite the challenges involved, we suggest this is worth pursuing for the potential benefits in reducing farmers' sense of disconnection from wider society, increasing receptiveness to measures for enhancing agricultural public good provision and engagement with alternative good farming ideals.

1. Introduction

Ensuring farming produces sufficient food to meet demand without compromising the capacity to feed future generations is a key global challenge (FAO, IFAD, UNICEF, WFP, & WHO, 2024; Godfray and Garnett, 2014). During the 20th century, to keep pace with growing demand, increases in supply were largely achieved via industrialised farming regimes which maximised yields through unsustainable use of natural resources (Stoate et al., 2009). This had detrimental effects on the environment, undermining the continued viability of farming, and more broadly, threatening natural systems and processes necessary for human well-being (Foley et al., 2011). Efforts to promote alternative farming approaches as part of more sustainable food systems have increasingly employed a wider view of farming that draws attention to the benefits and impacts of agriculture for society beyond solely the production of food (Huang et al., 2015). Policy measures to mitigate the negative impacts of productivity-driven farming, including agri-environment schemes (AES), have increasingly been framed in terms of their capacity to deliver a range of public goods from farmland (OECD, 2015).

The construction of land as a provider of public goods has a long history in environmental economics (Raffaelli and White, 2013), which defines public goods as delivering benefits to society that are non-rivalrous (i.e. use by one individual does not affect the availability of the good to others) and non-exclusive (i.e. it is too costly to prevent others from enjoying the benefits of access to the good) (Anderson, 2000; OECD, 2001). While this definition would make agricultural produce private goods, it also means that many outputs of farming can be described as public goods to some extent, such as landscape character, clean drinking water, and regulation of water flows, and different farming approaches may differ in their impact on the delivery of different public goods (Abler, 2004; Jespersen et al., 2017; Renting

* Corresponding author. Durrell Institute of Conservation and Ecology, Kent Interdisciplinary Centre for Spatial Studies, University of Kent, Canterbury, Kent, CT2 7NR, United Kingdom.
E-mail address: J.Tzanopoulos@kent.ac.uk (J. Tzanopoulos).

https://doi.org/10.1016/j.jrurstud.2025.103836
Received 22 January 2024; Received in revised form 28 July 2025; Accepted 6 August 2025
Available online 13 August 2025
0743-0167/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

et al., 2009). Non-excludability and non-rivalry in consumption means users have little incentive to pay for public goods, and without payment farmers are usually not motivated to provide these goods (Cooper et al., 2009). As a result, these goods are often unaccounted for within market economies (Angus et al., 2009; Brunstad et al., 1995). Policy interventions could correct these market failures and bring the supply of public goods in line with society's requirements, by incentivising farmers to redirect resources from the efficient generation of farm commodities towards public good provision and compensate for the extra costs incurred in doing so (Cooper et al., 2009; Westhoek et al., 2013).

As the language of public goods has gradually asserted itself within policy discourse, there are signs that its usage has moved away from a technical definition grounded in economic theory, to a looser, more inclusive definition, with an array of different meanings (European Network for Rural Development, 2011; Gerrard et al., 2012). Other, related, concepts used to justify AES have similarly seen their meanings broaden and diversify, allowing them to be used for different purposes. Within European policy debates, the idea of agriculture as 'multifunctional' – delivering outputs other than food and fibre – has been subject to different interpretations that have enabled its appropriation by different parties, including farming lobbies seeking to promote production-oriented interests (Barnaud and Couix, 2020; Potter and Tilzey, 2007). The contested nature of these motifs reflects an enduring debate over the most desirable relationship between farming, food, and the rural environment, and whether these outcomes can or should be delivered jointly, or decoupled (Howe and Ross, 2019; Potter and Tilzey, 2007). As such, it remains important to gather insights into how the farming community interprets the concept of 'public goods', and what these interpretations could mean for engagement with AES and their subsequent performance.

Extensive research has been conducted to identify factors affecting farmer AES participation, with the aim of informing AES design and implementation so they can realise their full potential (Dessart et al., 2019; Tyllianakis and Martin-Ortega, 2021). Economic and structural factors, relating to the financial costs and benefits of management actions, contribute to farmer decisions over environmental management, but they are not the only influence on farmer decision-making in this area (Lynne, 2006). Some farmers remain unwilling to participate in environmental schemes even if the payment offered exceeds the additional costs and income foregone associated with this activity (Kuhfuss et al., 2014), while there are widespread instances of farmers voluntarily adopting environmentally friendly practices without any external financial incentives (Mills et al., 2018). Measures that recognise the more-than-economic dimensions of farmer environmental management and public good delivery, and target these aspects of decision-making, including farmers' underlying beliefs and values, may be more likely to deliver long-term behavioural changes compared to those relying solely on regulations or financial incentives (Mills et al., 2017). One productive area of research that has addressed the relationship between farmer values and behaviour in a variety of contexts concerns how farmer identities influence the way they manage their land, in choosing actions that best align with their sense of who they are/their role (Lokhorst et al., 2014; Stryker and Burke, 2000). The ideals associated with farmer cultural identities, and how they shape the legitimacy of different practices, are increasingly recognised as a key area of struggle for processes seeking to reshape agricultural goals or priorities (Saunders, 2016).

Agricultural policy reform in England provides an important context for studying the emerging politics and dynamics of this turn towards a public goods model of agriculture. English agricultural policy was shaped by the European Union's Common Agricultural Policy (CAP), but following Brexit, policy reforms were launched with the explicit aim of delivering 'public money for public goods' through the Environmental Land Management (ELM) scheme (DEFRA, 2023a; Gove, 2018). While ELM broadly resembles previous schemes in terms of the practices and outputs farmers are being paid for, these reforms were notable for the prominence given to the language of public goods (Finlay et al., 2020). The framing of ELM as support for public good provision was generally welcomed among both environmental organisations and farmer's groups (Finlay et al., 2020; NFU, 2018). However, a lack of specific details in the initial proposals fed into a wider debate over what public money for public goods meant in practice. While some outputs of agriculture were widely recognised to be public goods requiring financial support, continued vagueness in defining public goods created the space for a debate over what qualifies as a public good amongst different stakeholders trying to make the most of this ambiguity (Gravey, 2019; NFU, 2018; DEFRA, 2018b).

These policy reforms therefore prompted a return to fundamental discussions about what farming can, or should be expected to, provide (Howe and Ross, 2019). Farmer perceptions of agricultural policy instruments are known to influence how they engage with such schemes (Gorton et al., 2008; Kvakkestad et al., 2015), so it is crucial to use this political juncture to investigate how farmers responded to a change in policy approach that was portrayed as targeting public good delivery. There is a developing body of research exploring how farmer engagement with environmental management, including public good provision, reconciles with their farming identities and ideals, but this has largely taken farmer understanding of the concept of public goods for granted (Cusworth and Dodsworth, 2021; Wheeler et al., 2018). Here, we used qualitative semi-structured interviews to apply existing frameworks relating to public goods and farmer self-identification to examine how farmers think about public goods, by identifying features of farmer interpretations of public goods and assessing what these interpretations mean for farmer willingness to identify as providers of public goods. In doing so, we show how farmer views of public goods reflected factors influencing their identities' resistance to change, stemming from concerns that the concept was tied up with trends around marginalising farmer knowledge and external criticism of farming performance. Equally, however, farmer discussions of their relationships and reputations with the beneficiaries of public goods highlighted possible opportunities for increasing farmer receptivity to change through greater public recognition of farmer performance.

2. Conceptualising farmer role identities and provision of public goods

In this section we wish to situate our observations of farmer perceptions of public goods, and how these perceptions relate to willingness to provide these goods, within a broader tradition of scholarly work on farmer identity and what it means to be a good farmer. Besides the desire to maximise profitability, farmer management decisions may also be influenced, consciously and unconsciously, by personal beliefs/values concerning the purpose of farming in relation to society and the environment (Lynne, 2006; Mills et al., 2018). Social psychological theories describing how people's behaviour functions as an expression of their identity have proved useful for investigating the relationship between farmer ideals, values, and their practices, in a variety of contexts (Burke and Stets, 2009; Burton et al., 2021; Lokhorst et al., 2014).

For instance, Burke's (1991) describes how an individual's identity as a member of a group, with a particular understanding of the world, arises from social experiences that teach them about the symbolic significance of objects, attitudes, and behaviours to the group. Society comprises multiple, hierarchically structured social groups, so a person's experiences with different groups supports the development of multiple identities, which are likewise structured and hierarchical (Stryker and Burke, 2000). A group characterised by belonging to the same profession may develop an occupational or role identity in which members' sense of identity is tied closely to this occupation (Carroll and Lee, 1990). This perspective has underpinned a growing body of literature concerned with farming identities, drawing also on a framework provided by Bourdieu's (1986) theory of capital and social reproduction,

which describes how people have dispositions to act in ways that improve their status in a social group by acquiring and exchanging economic, social, and cultural forms of capital. When a community views certain forms of capital as legitimate under the current 'rules of the game', then possessing them means individuals can gain prestige, or 'symbolic capital' (Bourdieu, 1986; Bourdieu and Wacquant, 1992).

Initially, the application of these concepts to farmer behaviour identified a close link between the rules of the game determining legitimate symbols of good farming and the goals of a dominant productivist culture promoting rationality and efficiency through intensification and specialisation, to maximise farm productivity (Burton, 2004; Lowe et al., 1993). To maintain this productivist 'good farmer' identity, farmers seek to demonstrate farming skill and create symbolic capital via visible indicators of food production (Burton, 2004). This provided a way to explain resistance to AES participation in terms of farmer unwillingness to adopt schemes that would limit opportunities to demonstrate their expertise as food producers and make them perform activities at odds with productivist norms and values central to their sense of self (Burton et al., 2008; de Snoo et al., 2013).

However, recognition of the malleability of agricultural 'rules of the game' has led to an understanding of the good farmer identity as more flexible and pluralistic, varying with context, so it can potentially be aligned with activities not directly linked to productivist ideals (Burton et al., 2021). Drivers of agricultural change can alter what symbols are considered reliable indicators of prestige – for example, reframing AES participation as fertile grounds for demonstrating farmer expertise (Riley, 2016; Sutherland and Darnhofer, 2012). Alternative conceptions of good farming can exist among different groups of farmers, informed by different moral imperatives, some of which support approaches that align more closely with a post-productivist culture placing more emphasis on agricultural multifunctionality, the role of food quality, and environmental concerns (Hunt, 2010; Sutherland and Darnhofer, 2012; Wilson, 2004). Even among 'conventional' farmers, symbols of good farming do not have to be confined to indicators of productivity, and various justifications have been identified for including environmentally friendly management in contemporary farming ideals, including personal beliefs around respect and responsibility, and more pragmatic concerns over compliance and profitability (McGuire et al., 2015; Wheeler et al., 2018).

While these flexible identities create opportunities for farmers to accommodate public good delivery within their roles, farmer willingness to engage with this idea can also depend on what exactly they think 'public goods' means. This is important to account for because the way in which people approach the identification and valuation of benefits from nature can itself be contested. From the starting point of economic theory, public goods are benefits to society that are non-rivalrous and non-exclusive (Cooper et al., 2009; OECD, 2001). In environmental terms, such public goods encompass classes of ecosystem services, typically cultural or regulating services, that cannot be exclusively controlled or monopolised by a single party (Burkhard et al., 2013; Costanza, 2020; Westhoek et al., 2013). The identification of agricultural ecosystem services, and by extension, public goods, can be influenced by people's perceptions of agroecosystems, and their beliefs concerning which goods and services matter to them and why, leading people to come to different conclusions about nature's value to society (Barnaud and Antona, 2014; Latour, 2004). Moreover, since people's ability to perceive and process information about the world is imperfect, they may not fully appreciate the ultimate benefits of a potential public good or ecosystem service (Costanza, 2020). This discrepancy reflects a distinction between two related, but separate, meanings of 'value' recognised by economics: what a person believes to be important based on their underlying principles, and the relative importance or worth of an object or activity (Brown, 1984). Maintaining this distinction is important for a complete understanding of an ecosystem's worth, as is required under a natural capital framework (Chan et al., 2012; Costanza, 2020; Sagoff, 2000), which has been closely associated with the emphasis on financing public good delivery in the UK government's vision for farming as a means of reconciling economic growth and environmental protection (DEFRA, 2018a, 2023b).

3. Methodology

This study used a qualitative data collection approach, conducting in-depth interviews with farmers in south-east England. Respondents were selected from an area stretching from the North Kent plain (with fertile soils, dominated by arable and horticultural land), to the High Weald (sandstone hills with less productive soils, primarily farmed by small beef and dairy enterprises) (High Weald Joint Advisory Committee, 2019; Natural England, 2015; Tubbs, 1997).

Within the context of our study area, we sought to generate a sample covering a range of relationships with public good delivery, encompassing more specialised and intensive farms as well as more diversified and extensive farms, and examples of subsidised and unsubsidised public good provision. We achieved this using a combination of chain referral and purposive sampling (Marshall, 1996; Newing et al., 2011). We began by approaching local experts (including representatives of farming businesses, farmers' clubs, land management advisors, and conservation groups) and asking them to provide initial suggestions for farmers that satisfied our criteria. After these first interviews, we asked the interviewees to suggest further respondents expected to have different perspectives, to access new types of participants missing from the initial sample. From the candidates provided, we deliberately selected respondents that would maximise the variety of farming approaches, production systems, and backgrounds, included in the sample. Interviews were analysed continuously throughout data collection, enabling us to monitor the occurrence of new themes in responses. Sampling continued until the saturation point, which we judged to occur when three consecutive interviews no longer generated any major new thematic codes, and each major theme was represented in multiple interviews, allowing its meaning and significance to be clearly understood (Francis et al., 2010; Hennink et al., 2017).

We opened each interview by asking respondents for a basic introduction to themselves and their farm, making sure that we had accurate information on some key farm and farmer characteristics, as per Table 1, so we could keep track of the sample diversity, and get some context for each interviewee's subsequent answers. The 18 sampled farmers represented a variety of farm sizes, production systems, livestock and crop types, and approaches, including conservation and organic agriculture, as well as more conventional farms, and while most interviewees were AES participants, there were also farmers who had withdrawn from AES, or had never been part of such schemeds. 6 of these farming businesses had additional sources of income beyond food production or subsidies, through activities including commercial and residential lettings, ecotourism and recreation, and the provision of therapeutic services. Some farmers were landowners (or acting on the landowner's behalf), while others were renting all or part of the land that they managed. The sample demographics were also varied: some interviewees had a family history of farming while others were new entrants, and participants included men and women across a nearly forty-year age range. However, respondent ethnicity was uniformly white, and nationalities were exclusively British or English – as is the case for almost all farmers in England (DEFRA, 2022).

Each participant was briefed on the nature of the research, including their anonymity and the use of their responses, before agreeing to an interview. A semi-structured interview approach was used, with interviews lasting between 40 and 90 min, taking the form of in-depth conversations organised around a schedule covering a set of topics of interest, focused on public good provision by agriculture.

The interviews were conducted during March 2020 (to pilot the interview design) and from November 2020 to February 2021, coinciding with the initial year of the Covid-19 pandemic, so not all interviews could be conducted in person: hence we employed a

Table 1
Characteristics of farmers (and their farms) selected for interview.

Farmer characteristics		No. of respondents	Farm characteristics		No. of respondents
Age	<40	5	Farming approach	Conventional	12
	40–59	7		Organic	3
	≥ 60	6		Conservation/Regenerative	3
Sex	Male	13	Area managed (hectares)	<100	4
	Female	5		100–999	9
Background	New Entrant	5		≥1000	5
	Family farming background	13	Farm type	Arable	4
AES participation	Never	3		Grassland	4
	Previously	3		Fruit and vegetables	3
	Currently	12		Mixed	7
Tenure	Owner	9	Livestock present	Sheep	4
	Tenant	6		Cattle (beef)	7
	Part owned/part rented	3		Cattle (dairy)	2

combination of face-to-face and video-call based interviews. Participants were asked about their relationship with their identity, their reaction to being labelled as a provider of public goods, the types of public good delivered by their farm, and the relative importance of these public goods for farm performance and wider society. We wanted to let farmers identify the public goods provided by their farm themselves, and then explore what how these identifications reflected beliefs and attitudes concerning their role as farmers.

Since the interviews were conducted at a time when both Brexit and the Covid-19 pandemic were dominant topics in the agricultural sector, participants were also questioned on the role of these factors, to help understand how these might be influencing their wider outlook on farming and public good provision.

Prior to participant recruitment, an ethical review was completed and approved for the study. Participants gave informed consent for their interviews to be recorded, and these recordings were transcribed verbatim. Each transcript was read multiple times and coded manually to identify overarching patterns or themes. For the pilot interviews, this thematic analysis was based on a data-driven, inductive approach, which meant that coding was not guided by a predetermined coding framework, nor as far as possible, researcher preconceptions about the subjects covered (Braun and Clarke, 2006). The codes developed through the pilot interviews provided a basic coding framework that then was applied and refined during the analysis of the remaining interviews. For the purposes of reporting key quotes that capture the essence of particular themes, each respondent has been assigned a number between 1 and 18 (i.e., R1, R2, R3 etc.).

4. Results

Our interviews illustrate how longstanding arguments concerning the relationship between good farmer identities, policy interventions, and perceptions of farming's environmental impact, were expressed in how farmers understood and identified with the idea of public good provision. By encouraging farmers to reflect on their general and specific relationship with the public, we further show how a public goods perspective can start to reveal the opportunities and challenges involved in generating signals of good farmer quality that are recognised by the wider public.

Below, we explore how farmer interpretations of public 'goods' as both commodities and benefits helped them categorise certain farming outputs as distinct public goods. We also consider how farmers connected this idea to personal beliefs and assumptions about why their role as farmers is considered 'good' for society, something that is central to conceptualising the 'good farmer'. When combined with a view of public goods as an expression of an emergent, rule-governed knowledge culture within policy making, we find that farmers tend to link appeals to public goods to enduring concerns over the marginalisation of farmer knowledge and the loss of opportunities to generate the very symbolic capital that underpins good farmer identities. Equally, because the public goods concept was seen to emerge from a narrative around the environmental harms of farming, respondents could see this as a further external challenge to good farmer identities centred on productivist ideals. While many farmers sought to deflect these concerns, some saw opportunities to reclaim what it meant to be a farmer, address a perceived lack of appreciation of farming or sense of cultural isolation, and shift this narrative by enabling more direct public recognition of farming benefits. By considering the potential for signals of quality to be accessible to non-farmers as well as farmers, we go on to identify opportunities and challenges for public recognition to increase the compatibility of public good provision with good farming ideals.

4.1. Farmer perspectives on public goods

When farmers reflected on the relationship between their role and the idea of public goods provision they tend to characterise 'goods' in two key ways: 'goods' as commodities, and 'goods' as benefits to people. These two meanings can be seen as analogous to the meanings of 'value' in economics described above: something's relative worth, and an underlying principle or belief about what is important in life (Brown, 1984). Respondents could use these meanings to help them categorise what they saw as public goods from agricultural landscapes, but also identified challenges in applying these meanings, sometimes prompting deeper reflection on utility of a public goods discourse.

When interpreting the idea of 'goods' as commodities - as a matter of relative worth - some farmers sought to categorise agricultural produce as a public good: "*I do provide public goods, yeah, 'cos I grow produce to sell*" (R3, organic mixed farm). From this perspective, the ability to be traded was a characteristic of public goods:

> "*Public goods. Goods are generally things that are paid for, right? They're tangible, quantifiable, measurable, box of x number of kilos, that's a, that's a good. I'm buying five kilos of sugar, there are my goods. Goods in transit. Generally, paid for commodities traded. Tangible assets.*" (R2, conventional mixed farm)

Here, R2, equated the 'good' in public goods with an 'asset': something of value, that can be owned and sold, which was in turn linked to the potential for a quantity to be assigned to the good, which can be translated into monetary value. This view meant that farmers looking for public goods from their land often focused on quantifiable outcomes that made it more straightforward to link specific levels of payment levels to public good delivery.

Where farmers interpreted the idea of 'goods' in more virtuous terms, as a question of what is ethically demanded, public goods from farming were understood more broadly, as encompassing all those agricultural outputs deemed necessary or desirable for people's benefit:

> "*[P]ublic goods or public good, it depends* […] *it's a kind of play on words in a way, isn't it? So, public goods are things, that people see as things, as products, as outputs, I suppose. And public good, is something*

> *for the public good, for the benefit of. And I would say, that the public goods come from that, that same root, so, it should be all of those things.*" (R9, organic horticultural farm)

R9's response here encapsulates both ways of looking at public goods, involving both meanings of value, simultaneously recognising the idea of a 'good' as a quantifiable product with embedded worth, and the 'good' as the potential benefit to the public.

One of the foundational ideas in the 'good farmer' literature is that farmer identities are influenced by their perceptions that their practices are 'good' in the sense that they deliver positive contributions to society and economy (Burton et al., 2021). It is thus important to a farmers' sense of identity that they can identify positive outcomes from their practices and recognise quality performance in delivering these benefits. Across interviews, representing different approaches to farming (including those that could be described as 'productivist' and 'post--productivist'), food production was recognised as foremost among these benefits. Describing public goods both as commodities and as benefits for the public also made it straightforward for farmers to interpret the public goods concept in a way that aligned with productivist ideals and justify the need for their role to remain centred on food production. Farmer arguments for why their food production represented a benefit for society included food security and physical health, "*The most public good is the fact that we produce food, and they can eat and don't starve, I think.*" (R6, conventional mixed farm), but also an emphasis on mental well-being: "*It's all to do* […] *with somebody having a good sense of well-being. If you eat well, you're a lot happier person, aren't you?*" (R4, conventional mixed farm).

Besides the widespread unambiguous recognition of the beneficial impact of food provision, farmers also acknowledged that identifying other ways in which their farming benefited the public could be more complex and subjective, depending on one's values concerning necessities for society's well-being, and the role of farming in society. Interviewees thus speculated widely on what farming outputs might be distinguished by the term public goods, and in doing so showed awareness that their categorisation reflected their own personal stance. One respondent, speaking of creating wildlife habitat on their farm to comply with the quality assurance standards set by retailers, suggested "*that, to me, is public money for public good*" (R8, conventional horticultural farm). Another, in calling for state support to purchase equipment that would enable improvements in soil structure, justified their request by explaining that "*I would say that's a public good*" (R6, conventional mixed farm). Still another, when discussing the food they produce, reflected, "*I'd say I am* [a provider of public goods]*, but what do you class a public good as*?" (R4, conventional mixed farm). In other words, the usage of the public goods term for classifying farm outputs could be open and contested, "*So, it depends what angle you're coming at as far as* [it being classed a] *public good*" (R6, conventional mixed farm).

The idea of public goods as subject to multiple interpretations also meant farmers could perceive interested parties to be exploiting this ambiguity to suit their own agendas:

> "*That's the way the government is selling its proposed changes, in that we provide public goods* […] *They* [the government] *have control of the countryside. In the formal words you use, you can tweak around that control, if you're paying enough money* […] *You can certainly tweak it around to produce environmental goods if that's what your current thought in life is. You could certainly tweak it towards increased public access if that's what your ambition is.*" (R7, conventional arable farm)

R7's proposition here illustrates how describing farm outputs as 'public goods' was seen to be a way to justify using agri-environment measures to exert control on farming. The government's ability (in this comment 'you' signifies the government's perspective) to take advantage of the malleability of the public goods concept and manipulate the "*formal words*" used lets them "*tweak*" this control to get outputs that align with their political objectives. This idea was linked to respondent fears that agri-environment measures represented a threat to their autonomy, reflecting a long running theme in the good farmer literature in which prescriptive policy measures that limit opportunities to acquire symbolic capital necessary to demonstrate 'good farmer' status will face stronger cultural resistance (Burton et al., 2008).

> "*I find* [the public goods concept] *a little bit worrying. Because I think that, that concept, lends itself for, the government, or higher bodies, dictating how you should provide those goods.* […] *I was saying before, no-one else really but me will understand the farm in the way I understand it* […] *And I would be really annoyed, if, someone, suddenly, there were a whole set of rules that dictated what I should do and how I should do things, because I'm providing, a public service, and a public good.*" (R17, conservation / regenerative livestock farm)

Here, the idea that R17 should be providing something defined by a label imposed by a 'higher body' was seen as subjugating their personal knowledge of their farm. Across interviews, farmers described farming as a continual learning process, accruing wisdom through experience so that they felt that "*no-one else really but me*" fully understands how best to manage their farm.

It is possible to distinguish various 'knowledge cultures' operating in the agricultural sector, that provide members of different groups with different ways of understanding the world based on implicit rules about what constitutes legitimate knowledge. R17's emphasis on the value of accrued wisdom and experience for farming is characteristic of an established, farmer-led 'agrarian knowledge culture' (Tsouvalis et al., 2000). While constructive interactions can occur when farmers encounter other forms of environmental knowledge based on differing ideologies (Morris, 2006; Thomas et al., 2020), farmer resistance to changing good farming ideals under new policy measures can be understood as the result of pitting "*years of accumulated practice-based knowledge (often geographically specific) against the scientifically based knowledge of policy makers*" (Burton et al., 2021, p. 157) that may overlook the specifics of local agricultural conditions. R17's response, emphasising their concerns over the marginalisation of farmer knowledge, is therefore typical of this view, and across our interviewees, the idea of public goods was recognised as a product of a policy knowledge culture: farmers typically attributed awareness of the concept to its emergence in policy discussions: "*It's been, public money for public goods,* [the government] *mentioned it. Eighteen months ago, and just been there ever since*" (R2, conventional mixed farm). Therefore, as illustrated by R17's suggestion above, 'public goods' could therefore be seen as something that was being imposed upon farming. In associating the malleability of 'public goods' with this perceived domination of a policy knowledge culture and a marginalisation of farmer knowledge, R17 linked the phrase to anticipated restrictions on their ability to demonstrate their farming knowledge and expertise. This matters to farmers because these demonstrations enable the acquisition of symbolic capital that underpins 'good farmer' status, and being unable to do so can lead to a loss of cultural, social, and ultimately, economic capital (Burton et al., 2008, 2021).

4.2. *Reconciling public good provision with farmer identities*

Wariness towards the concept of public goods was also reflected in reluctance among farmers to identify themselves as a provider of public goods, despite evidently widespread agreement that farmers deliver in principle a variety of outputs that could be classified as public goods, and which fit with a view of themselves as custodians of the countryside: "*Provider of public goods, I just don't like the sound of that.* […] *For the responsibility of maintaining and looking after the countryside, I'm more than happy to do that* […] *that's got to be our role*" (R10, conventional arable farm). As Burke (1991) suggests, individuals can have different identities that are developed through social experiences arising from membership of different societal groups and develop role identities through association with a group characterised by a common profession (see also

Carroll and Lee, 1990). Accordingly, when discussing their willingness to identify as providers of public goods, some respondents associated this identity with membership of an alternative professional group, one different to farmers: "*Our government are pushing us to not be farmers, they're pushing us to be land stewards.*" (R6, conventional mixed farm). The 'provider of public goods' identity was here viewed as being part of a more generalistic professional group, encompassing other types of land manager, and distancing themselves from the more distinctive farmer identity that they were most attached to. Treating 'provider of public goods' as another, separate role alongside being a 'farmer' was also viewed with scepticism, resonating with the idea that good farming ideals among established farmers emphasise full-time commitment to being a farmer: it is not something that should be done in addition to another professional role (Sutherland, 2020).

Similarly, the perception of 'provider of public goods' as being framed in opposition to being a farmer was seen to put the farmer identity in a negative light:

> "*I don't know any farmer that doesn't appreciate conservation* [...] *And that's the bit that always puzzles me in the way some of these things are termed* [i.e., providing public goods]*, as though, you know, farmers are abusing the land, so it's all gonna run out. I mean it's so short-sighted in the sense that, agriculture has been going on for several hundreds of years, based round a sustainable principle that what you put in, you get out.*" (R16, conventional mixed farm).

Given that many farmers described good farming practice as reflecting a tradition of sustainable land management, this perspective was seen as disregarding what farmers already contribute to environment and society, and as mentioned above, overlooking the accrued wisdom and experience valued by farmer knowledge cultures. Moreover, R16's reflection is interesting in the way it also portrays the 'public goods' rhetoric as something that had arisen as part of a need to address perceived environmental harms of farming, with farmers supposedly "*abusing the land*". Here, R16 sought to downplay these concerns about farming's environmental impact, a strategy recognised by other researchers as a "*cultural script of good farmerhood*" (Silvasti, 2003, p.149). This is a discourse widely embedded in farming communities, because criticising commonly accepted practices among farmers could, as Burton et al. (2021, p.101) puts it "*undermine what is culturally representative of a good farmer, and by this undermine the moral goodness of farming in general*".

Even farmers who were more willing to engage with the idea of being a public good provider to some extent still tended to stress that this was only a partial description of what their role involves: "*I'm not solely a provider of public goods*" (R15, conservation/regenerative livestock farm). Providing public goods was better framed as an aspect of their existing farmer identity, rather than the focus of a new role: "*I'm happy with the terminology, just not that it's the only thing that we're here for*" (R15, conservation/regenerative livestock farm). Respondents emphasised that their farming identities should remain centred on the production of food to sell, the defining characteristic of their role: "*I'd like to think that we are primarily producers of food*" (R13, conventional arable farm), such that productivist ideals remained at the heart of the good farmer identity. In general, interviewees revealed the idea that farmers sought to ensure that the 'provider of public goods' label did not compromise their primary role as food producer, either by rejecting the label, stressing that it was subsidiary to food production, or interpreting it in a way that was synonymous with the productivist ideals underpinning their role. A sense of occupational pride in being producer of food and provider of food security has long been recognised as central to the construction of farming identities (Burton, 2004; Burton et al., 2021), and this was evident in the interviews, with farmers being sceptical of any framing of their role seen to diminish the significance of food production.

4.3. Recognising quality performance in public good provision

Discussions around public goods frequently led farmers to refer to their relationship with, and reputation among, the wider public. It has been suggested that pressure to address the perceived environmental harms of farming has made farmers more sensitive to negative coverage in the media and critical public opinion, thus reinforcing their view that their role is increasingly undervalued by society (Wheeler et al., 2023). This feeling of underappreciation is symptomatic of an enduring and widely recognised sense of farmer 'cultural loneliness', with a perception among farmers that there is a deepening divide isolating them from the rest of their communities and wider society (Monk, 2000; Wheeler et al., 2023). So, while farmers recognised that they provided a variety of benefits to the public that they could categorise as 'public goods', the use of this term was wrapped up with this sense of cultural isolation and a belief that non-farmers did not properly understand what they were asking of the farming community.

As a consequence, farmer willingness to be viewed as a provider of public goods was often linked to a desire for greater public appreciation for this aspect of their role:

> "*Public goods for public money: yeah, fine. But does the public understand what farmers and land managers actually already put back into the economy? You know, do they understand that there is always a willingness to engage in environmental schemes, not just for the monetary aspect, but for the side of, providing benefit to nature and ecology?*" (R11, conventional mixed farm)

R11's acceptance of being a provider of public goods was immediately qualified by questions over whether this gets enough public recognition, implying that they doubt the public really do understand what farmers "*put back into the economy*" and their reasons for engaging in environmental management. This portrayal of the public as not being able to or willing to fully recognise the value of the goods and services delivered by farmers was repeated across interviews. Some farmers suggested that the use of the 'public goods' term itself exacerbated this lack of understanding:

> "*I think the language that they've used in the current* [legislation] *almost sets out that everybody has a right to the land, and what we do with it. I don't think that's a very helpful way for people to understand where their food comes from.*" (R16, conventional mixed farm)

Here, the language of public goods was described as implying that the public "*has a right to*" influence what farmers do with the land, creating an expectation that farming must comply with what the public demands. This sense of entitlement was again linked to the public failing to recognise the full value of what farmers do for society. There was also a suggestion from other farmers that this public entitlement was unjustified because the general public do not make any contribution to public good delivery themselves:

> "[T]*he concept of public goods is creating something environmentally good, like a stand of wildflowers or managing a piece of woodland to enhance the diversity of ecosystems around us. It's all well and good, but then when you look at the general public, they're living in a town, it's all concrete, they do nothing for the environment. I spend my life doing stuff for the environment, that's what I do all day, I grow crops, we suck in carbon, we try and do good things. And produce food as an output. So, I think there's a place for some of it, but I think they're getting a bit carried away with it.*" (R6, conventional mixed farm)

Here, R6 highlights an imbalance between the contributions of farmers and the general public. R6 feels that they should have more say in what they deliver from their land, because they are the ones doing the work to benefit society and the environment. This description seeks to give the farmer more power to reflect their position as controlling the means of producing public goods. Other research has highlighted how traditionally productivist farmers may act to frame concerned

consumers as an outgroup, defined by identities and ideals that are incompatible with those characterising the farmers' own social groups (Letourneau and Davidson, 2022). As a result, these farmers view consumer criticisms of environmental performance as an external challenge to the ideals underpinning their identities as good farmers, including a devotion to hard work and personal sacrifice to meet society's demand for food (Letourneau and Davidson, 2022). R6's response (as well as the view expressed by R11 above) illustrates this, by setting themselves apart from the wider public, who fail to fully appreciate the challenges of the farming lifestyle and what farmers contribute to society.

However, a different way of reacting to criticism of performance and perceived underappreciation from society was described by R9:

> "*I think farmers generally have, a fairly bad reputation with the general public. Depends who you talk to, but for some people they're our heroes, they grow our food, they're salt of the earth. But for a lot of people, they're greedy, lazy, saying they've got no money when they have, you know, entitled privilege. And there's both, there's all and both and there's a lot wrong with our farming system, so I think to try and, kind of almost reclaim that name, that word, farmer, farming. It needs to be something positive.*" (R9, organic horticultural farm)

Here, in contrast to some of the previous comments, rather than merely seeking to deflect external challenges to farming ideals, R9 (a new entrant deliberately choosing to farm in a different way to their more 'conventional' neighbours) aspires to respond by 'reclaiming' what it means to be a farmer. Again, there are parallels with Letourneau and Davidson's (2022) work, which observed productivist farmers as tending to portray non-farmers as an outgroup, while farmers more willing to engage in post-productivist approaches tried to identify and empathise more closely with consumers. Likewise, R9, rather than attribute a perceived poor public reputation solely to non-farmer misunderstanding, acknowledges some concerns may be legitimate and uses this to help justify an ambition to do something different, and so improve farmers' public image.

To be able to 'reclaim' farming's public image, we contend that part of this involves the wider publics being able to recognise quality performance in farming. The ability of farmers to recognise signals of performance quality among their peers is important for the construction of farming identities, and our work suggests that the compatibility of public good provision with good farming identities could benefit from signals of quality that are also recognised by non-farmers, extending the idea of symbolic capital to encompass farmer status beyond other members of the farming community.

Whether related to public good provision or otherwise, it has been argued that, for any action to produce a valid symbol of good farming status and be internalised into good farming identities, it must generate readily observable results, ones are accessible and understood by the target audience, and signify good practices that are culturally relevant to the observer (Burton et al., 2021). Our interviews illustrated some of the opportunities and challenges in applying these criteria to management activities for public good provision to contribute to recognition from both farmers and non-farmers.

When considering status among other farmers, respondents could identify a variety of activities relating to public good provision that satisfied these criteria, with various accessible features of the farm environment being used to make inferences about management quality in areas besides food production: "*If you got a hedgerow you can see through and it's been flailed to death and it's about two foot tall, you know they are ecologically illiterate.*" (R5, conservation/regenerative livestock farm). There is therefore potential for aspects of public good delivery to provide symbols of good farmer quality, and indeed, there is plenty of evidence from the literature showing how farmers may draw upon a wider range of symbols than purely production-focused ones, including those emerging from environmentally sensitive practices (Burton et al., 2021; Riley, 2016).

Equally, however, our interviewees highlighted where there were limits to the opportunities for public good delivery to generate symbolic capital among farming communities. Some public goods, such as carbon sequestration, were less suited to the generation of clearly visible signals, and in the agricultural sector in general "*the visibility of symbols of good farming is now declining – hidden behind the doors of intensive barns* [...] *and/or held as invisible knowledge of how to operate computer software or hardware*" (Burton et al., 2021, p. 159). With these trends comes greater reliance on specialist knowledge and close engagement with the specific farm environment to interpret the meaning of symbols, and so farmers often distinguished between observing farm features and having the necessary knowledge and experience to understand what they meant for performance quality: "*I don't really know very much about good land management practices of animal farming because I haven't really been there.* [...] *I'm aware of them, but I'm not always sure exactly what I'm looking at.*" (R2, conventional mixed farm). Moreover, while a commitment to food production was widely upheld as a good farming ideal, some felt that the implications of public good delivery for performance quality was more variable and subjective among different types of farmers, so that the cultural relevance of good practice in public good delivery was less universal: "*It's difficult for me to go round and assess other people's farms, really, because they have a different outlook on life, I suppose.*" (R6, conventional mixed farm). The types of public good provision and associated activities that can be reconciled with existing farming identities may therefore be more variable across different farming subcultures reflecting different environments, systems, and communities of practice.

While the ability of farmers to observe and interpret reliable signals of the performance quality of their peers has long been recognised as a necessity for practices to be internalised into good farmer identities (Burton, 2004), discussions around public goods also raised the possibility that the signals of quality could also target the wider public as an audience. Given farmer views that their positive contributions to environment and society – their 'public goods' – largely go unappreciated, farmer willingness to accept being a provider of public goods as part of their identity was frequently linked to their perception of the public's ability to recognise and value their performance in this role. Farmers could give examples of how they valued prestige not just among their immediate peers, but also the wider public, and welcomed opportunities to demonstrate their quality to the public, across a variety of different aspects of farm performance. For some, this could be achieved via selling some produce directly to customers: "*When I grow something and you see the customer's face light up* [...] *all of a sudden, you're like a, not god amongst ants, but their opinions change* [...] *it's like 'Oh my god, he's growing amazing stuff'.*" (R3, organic mixed farm). Similarly, farmers reacted positively to seeing visitors enjoy the farm greenspace or wildlife, experiencing the results of their environmental management, in terms of encouraging more favourable perceptions of the farm: "*There'll be sometimes a dozen people standing there with their binoculars watching, and that's a real reward* [...] *it's a good thing for the public to see what we're doing.*" (R10, conventional arable farm). The provision of public access in its own right was also highlighted as an opportunity for public recognition: "*I mean we are appreciated by the village. I mean, we do know a lot of people in the village, and there's an awful lot of people walking over the farm, over the paths, over the past year. And they appreciate that they're able to do that, on the public footpaths that we have.*" (R13, conventional arable farm). In all these cases, getting people to make the connection between a farm or farmer, and a positive personal experience, was welcomed as a means of increasing public appreciation for their role. These observations also resonate with recent work by Riley and Robertson (2022) that highlighted farmer efforts to develop palatable symbols of performance quality for wider audiences in online spaces, as part of an active strategy to create a public image that corrects the narrative of farming as environmentally damaging, or, as per R9's description, 'reclaiming' what it means to be a farmer.

However, as with signals of quality for farmers, there were limits to farmer ability to generate symbols that enabled direct public recognition of good farming. Indeed, the above examples, of selling food directly,

wildlife, and public access infrastructure, represented special cases – farmers could identify a few instances of receiving direct public recognition for their work, but still referred to a sense of underappreciation from society in general. Compared to signals of quality that contribute to status among farming peers, there are further challenges for farming activities to generate culturally relevant, observable, accessible and understandable results that enable recognition from non-farmers.

Typically, the symbolic meanings used to construct the 'good farmer' identified by rural social science research have been those that can be read via direct observation of the farming landscape by those possessing the experience and knowledge to understand the skills involved in land management and food production (Burton et al., 2021). Views on the importance of such experience and knowledge for the ability of non-farmers to recognise good performance varied. Some farmers highlighted how successful interpretation of symbols depended on experience or close engagement with the landscape or farming system: "*you can tell a poorly managed farm from a well-managed farm, if you see it all the time*" (R16, conventional mixed farm), or specialist knowledge that could be used to make inferences about environmental performance, such as the meaning of the presence of specific plants: "*And when you see that weed spectrum, you can tell a lot about a soil straight away. You can tell what health it's in, which is another interesting fact.*" (R3, organic mixed farm). While such symbols were therefore only likely to be inaccessible to a non-specialist audience, other farmers described how a well-managed environment should be "*easily visible to the lay person. And they probably would view it as would I, from the perspective of walking through it, and looking at it.*" (R7, conventional arable farm). Additionally, consumers and recipients of many of the public goods from farming may be geographically distant from the farming activities generating the food and public goods, limiting opportunities for direct public recognition of farmer performance. In the examples of public recognition cited by R3, R10, and R13, people were able to make a direct link between a positive physical experience – of food or the environment – and a specific individual farm or farmer, something that may be possible at a local level, but harder at larger scales.

5. Discussion

Our interviewees could categorise various outputs from their farms as public goods, using different concepts of value to describe public goods as both commodities and benefits. However, farmer views of public goods were also linked to the context in which they saw the concept being applied, which resulted in their responses reflecting familiar arguments for why farmer identities may resist change. At the same time, through discussions of farmer relationships with the beneficiaries of public goods, the interviews suggested options for mitigating this resistance, by extending the view of farmer symbolic capital to encompass recognition of farmer quality by the wider public.

The idea of public goods as benefits meant perceptions of public goods reflected farmer beliefs about the moral goodness of their role, but using personal values to identify public goods also fed into a view of the concept as liable to be manipulated by different parties. When combined with the idea of public goods as an expression of a dominant policy knowledge culture, farmers could link this concept to governmental control over farming. This is a viewpoint with parallels in the literature: there is a school of thought that states the economic theory of public goods fails to explain public expenditure in practice, and that the term persists because it is a convenient way for governments to justify the legitimacy of their activities (Holcombe, 1997; Maśniak, 2019). Some interviewees drew a similar conclusion, and this association between public goods and justifications for marginalising farmer knowledge means we can link farmer scepticism of the concept to explanations for how limiting opportunities to acquire symbolic capital contributes to farmer resistance to prescriptive agri-environmental policy interventions (Burton et al., 2008; Morris, 2006). While researchers have identified ways in which engagement with policy interventions can become compatible with good farmer identities over time (Riley, 2016), this issue of farmer cultural resistance to interventions evidently persists. It is likely a contributor to the "*visceral distrust*" of institutions that has been noted as an important aspect of farmer identities in relation to wariness of the UK's post-Brexit policy reforms (Jones-Garcia and Touboulic, 2022). Finding ways to promote the autonomy of participating farmers, allowing them to demonstrate their accrued knowledge and expertise in delivering targeted public goods continues to be important for effective agri-environmental policy measures (Arnott et al., 2019). There is some recognition of this need in English policy, with recent scheme proposals emphasising flexibility for farmers in how they choose to deliver outcomes (DEFRA, 2024).

Another way of understanding farmer identities' resistance to change concerned how interviewees saw the prominence of public goods as part of a narrative around the environmental harms of conventional farming. As noted by other researchers (Letourneau and Davidson, 2022; Silvasti, 2003) productivist farmers may see this as an external challenge that must be deflected to avoid undermining their established good farmer identity and ideals. As a result, policy reforms being sold as a new emphasis on public goods and an attempt to address a harmful legacy of farming may simply reinforce an already well-established productivist culture (Walford, 2003; Wilson, 2001). This is a familiar trend: while previous CAP reforms led some commentators to anticipate a transition away from a primarily productivist agricultural sector to more multifunctional farming landscapes, productivism continued to dominate regardless of farmer exposure to new agri-environmental schemes (Burton and Wilson, 2006; Saunders, 2016; Walford, 2003; Wilson, 2001). Interviewees could reconcile productivist identities with public good provision to an extent, acknowledging that their land delivered public benefits besides food, so long as this did not compromise their farming role identity centred on food production. Previous studies have shown that farmers can accommodate the simultaneous provision of private and public goods as different aspects of their role identities (Davies and Hodge, 2007; Kvakkestad et al., 2015). Respondent ability to recognise some signals of quality in public good delivery suggests there is some potential for such activities to contribute to good farmer status within their farming systems, as reported elsewhere (Wheeler et al., 2018), although this ability varied with the characteristics of the public good and the farm or farmer.

Not all responses involved reacting to public goods as an external challenge to good farming ideals and thus reinforcing productivist identities. Farmers could also use the narrative around public goods to justify efforts to improve farming's image via alternative farming approaches, but this depends on generating signals of quality recognisable to non-farmers. More generally, discussing public goods led farmers to express a desire for this role to be recognised by the beneficiaries of these goods, highlighting occasions when they did directly experience public recognition. While research into the development and maintenance of good farmer identities has largely focused on the accumulation of symbolic capital that contributes to status among farming peers (Burton et al., 2021), demonstrating performance quality specifically to the wider public could also create opportunities for the public to have some influence in shaping farmer identities. Riley and Robertson (2022), in studying farmer engagement with non-farming audiences in online contexts, highlight "*an increasingly significant position of the general public in farmers' thinking*", raising the possibility that farmers may reflect on their practices and even their sense of professional identity via these interactions. Targeting the wider public as an audience for signals of farmer quality can effectively be thought of as changing the definition of the societal group characterising farmer role identities, thereby altering the rules of the game for what the legitimate symbols of group membership can be (Bourdieu, 1986).

However, there are challenges preventing these opportunities from becoming more widespread. Signals of quality for farming audiences work when farmers know each other by reputation, so they can associate signals with known individuals (Lundqvist, 2001). The rarity of direct

public recognition for individual farmers meant respondent perceptions of their relationship with the public were instead dominated by a sense of underappreciation or ignorance, returning to the longstanding idea of farmer cultural isolation from the beneficiaries of farming (Wheeler et al., 2023). Besides, the ability to recognise signals depends on geographic proximity, knowledge, and experience of the farmed environment, making them generally less accessible to non-farmers. A question for further research could be whether the declining visibility of signals of quality (associated, for instance, with greater reliance on new technologies for optimising farm performance) (Burton et al., 2021), exacerbates the inaccessibility of such signals to non-farmers, or whether this trend puts farmers and non-farmers on more equal footing as observers of the farmed landscape.

Overcoming these challenges could reduce farmers' sense of cultural isolation, increase farmer willingness to engage with the idea of being providers of public goods, and incorporate new practices into good farming ideals. Given the difficulties associated with accessing, interpreting, and attributing physical signals to known farmers, virtual signals could be useful for conveying quality to wider audiences. For example, researchers are starting to consider the role of social media in demonstrating farming performance (Robertson and Riley, 2024). This could overcome some of the constraints to using signals of quality for non-farming audiences: representations of farming via social media may reach a wider audience who may be geographically distant from the farm, open up previously inaccessible farm spaces, and make individual farmers less anonymous to public audiences (Riley and Robertson, 2022). Other strategies to facilitate public recognition could involve, for instance, increased emphasis on on-farm education and visits for the public, certification schemes, and the re-localisation of food within conventional agri-food systems: promoting more direct, locally rooted interactions between producers and consumers could increase trust and solidarity among these groups (Fonte and Papadopoulos, 2010; Randelli and Rocchi, 2017).

6. Conclusion

While the economic definition of public goods is useful in highlighting where interventions are required to enhance agricultural sustainability (Angus et al., 2009; Cooper et al., 2009), different interpretations were evident among our interviewed farmers, reflecting their values and views on what farming should be for, and their relationship with the public. Farmer scepticism towards the language of public goods reflected enduring issues around how farmer identities may be resistant to change in the face of external interventions or criticism. Some commentators have argued that the transformative shift needed to develop a more sustainable agri-food system must involve changes to farmer identities (Howe and Ross, 2019), but trying to coerce these changes without adequate technical, policy, and financial support could be counterproductive. Given how farmers adapted the meaning of public goods to suit their ideals and sought to reject the challenges to their identities that they saw in the narrative around public goods, this may just encourage farmers to reinforce their existing identities (Letourneau and Davidson, 2022).

Our work reinforces the need for interventions promoting public good delivery to be promoted to farmers as maximising their autonomy in how they choose to deliver these public goods, enabling continued symbolic capital generation for good farmer status. However, we also highlight the value of signals of farmer quality that are accessible to the wider public, for fostering mutual recognition and respect among the providers and beneficiaries of agricultural public goods. There are challenges involved generating public recognition of the beneficial contributions of individual farmers, but they are challenges that are worth addressing, because this could provide further routes for shifting farming identities and ideals whilst also reducing farmer perceptions of being disconnected from society. Farmers that feel more connected to their wider communities may also be more receptive to consumer concerns and policy reforms for enhancing environmental performance, rather than seeing these as misguided threats to their identities. Addressing this cultural isolation of farmers should be a priority for environmental as well as social sustainability.

CRediT authorship contribution statement

Peter G. Matthews: Writing – review & editing, Writing – original draft, Methodology, Investigation, Conceptualization. **Robert D. Fish:** Writing – review & editing, Supervision, Conceptualization. **Joseph Tzanopoulos:** Writing – review & editing, Supervision, Conceptualization.

Declaration of interest

The authors can confirm that there is no known conflict of interest that could have influenced the research presented in this paper.

Acknowledgements

This work was funded by the Economic and Social Research Council (ESRC), via a studentship administered by the South East Network for Social Sciences (SeNSS). SeNSS/ESRC had no other involvement in the research presented here.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jrurstud.2025.103836.

Data availability

Data will be made available on request.

References

Abler, D., 2004. Multifunctionality, agricultural policy, and environmental policy. Agric. Resour. Econ. Rev. 33 (1), 8–17. https://doi.org/10.1017/S1068280500005591.

Anderson, K., 2000. Agriculture's "multifunctionality" and the WTO. Aust. J. Agric. Resour. Econ. 44 (3), 475–494. https://doi.org/10.1111/1467-8489.00121.

Angus, A., Burgess, P.J., Morris, J., Lingard, J., 2009. Agriculture and land use: demand for and supply of agricultural commodities, characteristics of the farming and food industries, and implications for land use in the UK. Land Use Policy 26 (Suppl. 1), 230–242. https://doi.org/10.1016/j.landusepol.2009.09.020.

Arnott, D., Chadwick, D., Harris, I., Koj, A., Jones, D.L., 2019. What can management option uptake tell us about ecosystem services delivery through agri-environment schemes? Land Use Policy 81, 194–208. https://doi.org/10.1016/j.landusepol.2018.10.039.

Barnaud, C., Antona, M., 2014. Deconstructing ecosystem services: Uncertainties and controversies around a socially constructed concept. Geoforum 56, 113–123. https://doi.org/10.1016/J.GEOFORUM.2014.07.003.

Barnaud, C., Couix, N., 2020. The multifunctionality of mountain farming: social constructions and local negotiations behind an apparent consensus. J. Rural Stud. 73, 34–45. https://doi.org/10.1016/J.JRURSTUD.2019.11.012.

Bourdieu, P., 1986. The forms of capital. In: Richardson, J. (Ed.), Handbook of Theory and Research for the Sociology of Education. Greenwood Press.

Bourdieu, P., Wacquant, L.J.D., 1992. An Invitation to Reflexive Sociology. The University of Chicago Press.

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3, 77–101. https://doi.org/10.1191/1478088706qp063oa.

Brown, T.C., 1984. The concept of value in resource allocation. Land Econ. 60 (3), 231–246. https://doi.org/10.2307/3146184.

Brunstad, R.J., Gaasland, I., Vårdal, E., 1995. Agriculture as a provider of public goods: a case study for Norway. Agric. Econ. 13 (1), 39–49. https://doi.org/10.1016/0169-5150(95)01152-B.

Burke, P.J., 1991. Identity processes and social stress. Am. Sociol. Rev. 56 (6), 836. https://doi.org/10.2307/2096259.

Burke, P.J., Stets, J.E., 2009. Identity theory. In: Identity Theory. Oxford University Press. https://doi.org/10.1093/ACPROF:OSO/9780195388275.001.0001.

Burkhard, B., Crossman, N., Nedkov, S., Petz, K., Alkemade, R., 2013. Mapping and modelling ecosystem services for science, policy and practice. Ecosyst. Serv. 4, 1–3. https://doi.org/10.1016/j.ecoser.2013.04.005.

Burton, R.J.F., 2004. Seeing through the "good farmer's" eyes: towards developing an understanding of the social symbolic value of "productivist" behaviour. Sociol. Rural. 44 (2), 195–215. https://doi.org/10.1111/j.1467-9523.2004.00270.x.

Burton, R.J.F., Forney, J., Stock, P., Sutherland, L.A., 2021. The good farmer: culture and identity in food and agriculture. In: The Good Farmer: Culture and Identity in Food and Agriculture, first ed. Routledge. https://doi.org/10.4324/9781315190655.
Burton, R.J.F., Wilson, G.A., 2006. Injecting social psychology theory into conceptualisations of agricultural agency: towards a post-productivist farmer self-identity? J. Rural Stud. 22 (1), 95–115. https://doi.org/10.1016/j.jrurstud.2005.07.004.
Burton, Rob J.F., Kuczera, C., Schwarz, G., 2008. Exploring farmers' cultural resistance to voluntary agri-environmental schemes. Sociol. Rural. 48 (1), 16–37. https://doi.org/10.1111/j.1467-9523.2008.00452.x.
Carroll, M.S., Lee, R.G., 1990. Occupational community and identity among pacific northwestern loggers: implications for adapting to economic changes. In: Community and Forestry: Continuities in the Sociology of Natural Resources, first ed. Routledge, pp. 141–155. https://doi.org/10.4324/9780429043253-11/.
Chan, K.M.A., Satterfield, T., Goldstein, J., 2012. Rethinking ecosystem services to better address and navigate cultural values. Ecol. Econ. 74, 8–18. https://doi.org/10.1016/J.ECOLECON.2011.11.011.
Cooper, T., Hart, K., Baldock, D., 2009. Provision of public goods through agriculture in the European union. In: IEEP Report Prepared for DG Agriculture and Rural Development, Contract, 30-CE-0233091/00-28 (Issue January).
Costanza, R., 2020. Valuing natural capital and ecosystem services toward the goals of efficiency, fairness, and sustainability. Ecosyst. Serv. 43, 101096. https://doi.org/10.1016/J.ECOSER.2020.101096.
Cusworth, G., Dodsworth, J., 2021. Using the 'good farmer' concept to explore agricultural attitudes to the provision of public goods. A case study of participants in an English agri-environment scheme. Agric. Hum. Val. 1, 1–13. https://doi.org/10.1007/s10460-021-10215-z.
Davies, B.B., Hodge, I.D., 2007. Exploring environmental perspectives in lowland agriculture: a Q methodology study in East Anglia, UK. Ecol. Econ. 61 (2–3), 323–333. https://doi.org/10.1016/j.ecolecon.2006.03.002.
de Snoo, G.R., Herzon, I., Staats, H., Burton, R.J.F., Schindler, S., van Dijk, J., Lokhorst, A.M., Bullock, J.M., Lobley, M., Wrbka, T., Schwarz, G., Musters, C.J.M., 2013. Toward effective nature conservation on farmland: making farmers matter. Conserv. Lett. 6 (1), 66–72. https://doi.org/10.1111/J.1755-263X.2012.00296.X.
DEFRA, 2018a. A Green Future: Our 25 Year Plan to Improve the Environment. UK Government. https://www.gov.uk/government/publications/25-year-environment-plan.
DEFRA, 2018b. Health and Harmony: the future for food, farming and the environment in a Green Brexit. Summary of responses. https://www.gov.uk/government/consultations/the-future-for-food-farming-and-the-environment.
DEFRA, 2022. Agricultural workforce in England at 1 June 2022. https://www.gov.uk/government/statistics/agricultural-workforce-in-england-at-1-june/agricultural-workforce-in-england-at-1-june-2022.
DEFRA, 2023a. Environmental Land Management (ELM) update: how government will pay for land-based environment and climate goods and services. https://www.gov.uk/government/publications/environmental-land-management-update-how-government-will-pay-for-land-based-environment-and-climate-goods-and-services/environmental-land-management-elm-update-how-government-will-pay-for-land-based-environment-and-climate-goods-and-services.
DEFRA, 2023b. Nature markets: a framework for scaling up private investment in nature recovery and sustainable farming. https://assets.publishing.service.gov.uk/media/642542ae60a35e000c0cb148/nature-markets.pdf.
DEFRA, 2024. Agricultural transition plan update January 2024. https://www.gov.uk/government/publications/agricultural-transition-plan-2021-to-2024/agricultural-transition-plan-update-january-2024.
Dessart, F.J., Barreiro-Hurlé, J., van Bavel, R., 2019. Behavioural factors affecting the adoption of sustainable farming practices: a policy-oriented review. Eur. Rev. Agric. Econ. 46 (3), 417–471. https://doi.org/10.1093/erae/jbz019.
European Network for Rural Development, 2011. Public goods and rural development. http://europa.eu.
FAO, IFAD, UNICEF, WFP, & WHO, 2024. The State of Food Security and Nutrition in the World 2024 – financing to end hunger, food insecurity and malnutrition in all its forms. In: The State of Food Security and Nutrition in the World 2024. FAO. https://doi.org/10.4060/CD1254EN. IFAD; UNICEF; WFP; WHO.
Finlay, J., Audickas, L., Ward, M., Coe, S., 2020. Agriculture bill 2019-21. In: House of Commons. *Briefing Paper* (Issue CBP 8702). https://commonslibrary.parliament.uk/research-briefings/cbp-8702/.
Foley, J.A., Ramankutty, N., Brauman, K.A., Cassidy, E.S., Gerber, J.S., Johnston, M., Mueller, N.D., O'Connell, C., Ray, D.K., West, P.C., Balzer, C., Bennett, E.M., Carpenter, S.R., Hill, J., Monfreda, C., Polasky, S., Rockström, J., Sheehan, J., Siebert, S., et al., 2011. Solutions for a cultivated planet. Nature 478 (7369), 337–342. https://doi.org/10.1038/nature10452.
Fonte, M., Papadopoulos, A.G., 2010. Naming Food after Places: Food Relocalisation and Knowledge Dynamics in Rural Development. Ashgate.
Francis, J.J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M.P., Grimshaw, J.M., 2010. What is an adequate sample size? Operationalising data saturation for theory-based interview studies. Psychol. Health 25 (10), 1229–1245. https://doi.org/10.1080/08870440903194015.
Gerrard, C.L., Smith, L.G., Pearce, B., Padel, S., Hitchings, R., Measures, M., Cooper, N., 2012. Public goods and farming. In: Lichtfouse, E. (Ed.), Farming for Food and Water Security. Springer, Dordrecht, pp. 1–22. https://doi.org/10.1007/978-94-007-4500-1_1.
Godfray, H.C.J., Garnett, T., 2014. Food security and sustainable intensification. Phil. Trans. Biol. Sci. 369 (1639). https://doi.org/10.1098/rstb.2012.0273.
Gorton, M., Douarin, E., Davidova, S., Latruffe, L., 2008. Attitudes to agricultural policy and farming futures in the context of the 2003 CAP reform: a comparison of farmers in selected established and new Member States. J. Rural Stud. 24 (3), 322–336. https://doi.org/10.1016/j.jrurstud.2007.10.001.
Gove, M., 2018. Farming for the next generation. https://www.gov.uk/government/speeches/farming-for-the-next-generation.
Gravey, V., 2019. Finally free to green agriculture policy? UK post-Brexit policy developments in the shadow of the CAP and devolution. EuroChoices 18 (2), 11–16. https://doi.org/10.1111/1746-692x.12234.
Hennink, M.M., Kaiser, B.N., Marconi, V.C., 2017. Code saturation versus meaning saturation: how many interviews are enough? Qual. Health Res. 27 (4), 591–608. https://doi.org/10.1177/1049732316665344.
High Weald Joint Advisory Committee, 2019. The High Weald AONB management plan 2019-2024. http://www.highweald.org/index.php/high-weald-aonb-management-plan.
Holcombe, R.G., 1997. A theory of the theory of public goods. Rev. Austrian Econ. 10 (1). https://doi.org/10.18288/1994-5124-2015-5-08.
Howe, H.R., Ross, M., 2019. Brexit's shades of green—(missing) the opportunity to transform farming in England? J. Environ. Law 31 (3), 413–441. https://doi.org/10.1093/jel/eqy025.
Huang, J., Tichit, M., Poulot, M., Egol Ene Darly, S., Li, S., Petit, C., Aubry, C., 2015. Comparative review of multifunctionality and ecosystem services in sustainable agriculture. J. Environ. Manag. 149, 138–147. https://doi.org/10.1016/j.jenvman.2014.10.020.
Hunt, L., 2010. Interpreting orchardists' talk about their orchards: the good orchardists. Agric. Hum. Val. 27 (4), 415–426. https://doi.org/10.1007/s10460-009-9240-7.
Jespersen, L.M., Baggesen, D.L., Fog, E., Halsnæs, K., Hermansen, J.E., Andreasen, L., Strandberg, B., Sørensen, J.T., Halberg, N., 2017. Contribution of organic farming to public goods in Denmark. Organic Agriculture 7 (3), 243–266. https://doi.org/10.1007/s13165-017-0193-7.
Jones-Garcia, E., Touboulic, A., 2022. 'We're out, so wtf do we do now?': Brexit and rural identity in the era of online agricultural communities. Sociol. Rural. 62 (2), 190–211. https://doi.org/10.1111/SORU.12365.
Kuhfuss, L., Preget, R., Thoyer, S., 2014. Préférences individuelles et incitations collectives : quels contrats agroenvironnementaux pour la réduction des herbicides par les viticulteurs. Review of Agricultural and Environmental Studies - Revue d'Etudes En Agriculture et Environnement (RAEStud) 95 (1), 111–143. https://doi.org/10.22004/AG.ECON.208766.
Kvakkestad, V., Rørstad, P.K., Vatn, A., 2015. Norwegian farmers' perspectives on agriculture and agricultural payments: between productivism and cultural landscapes. Land Use Policy 42, 83–92. https://doi.org/10.1016/j.landusepol.2014.07.009.
Latour, B., 2004. Politics of Nature. How to Bring the Sciences into Democracy. Harvard University Press.
Letourneau, A.M., Davidson, D., 2022. Farmer identities: facilitating stability and change in agricultural system transitions. Environmental Sociology 8 (4), 459–470. https://doi.org/10.1080/23251042.2022.2064207.
Lokhorst, A.M., Hoon, C., le Rutte, R., de Snoo, G., 2014. There is an I in nature: the crucial role of the self in nature conservation. Land Use Policy 39, 121–126. https://doi.org/10.1016/J.LANDUSEPOL.2014.03.005.
Lowe, P., Murdoch, J., Marsden, T., Munton, R., Flynn, A., 1993. Regulating the new rural spaces: the uneven development of land. J. Rural Stud. 9 (3), 205–222. https://doi.org/10.1016/0743-0167(93)90067-T.
Lundqvist, L.J., 2001. Games real farmers play: knowledge, memory and the fate of collective action to prevent eutrophication of water catchments. Local Environ. 6 (4), 407–419. https://doi.org/10.1080/13549830120091707.
Lynne, G.D., 2006. Toward a dual motive metaeconomic theory. J. Soc. Econ. 35 (4), 634–651. https://doi.org/10.1016/J.SOCEC.2005.12.019.
Marshall, M.N., 1996. Sampling for qualitative research. Fam. Pract. 13 (6), 522–525. https://doi.org/10.1016/S0001-2092(06)61990-X.
Maśniak, J., 2019. Agricultural land in the context of the theory of public goods – critical analysis. Acta Scientiarum Polonorum - Oeconomia 18 (3), 47–54. https://doi.org/10.22630/aspe.2019.18.3.31.
McGuire, J.M., Morton, L.W., Arbuckle, J.G., Cast, A.D., 2015. Farmer identities and responses to the social–biophysical environment. J. Rural Stud. 39, 145–155. https://doi.org/10.1016/J.JRURSTUD.2015.03.011.
Mills, J., Gaskell, P., Ingram, J., Chaplin, S., 2018. Understanding farmers' motivations for providing unsubsidised environmental benefits. Land Use Policy 76, 697–707. https://doi.org/10.1016/J.LANDUSEPOL.2018.02.053.
Mills, J., Gaskell, P., Ingram, J., Dwyer, J., Reed, M., Short, C., 2017. Engaging farmers in environmental management through a better understanding of behaviour. Agric. Hum. Val. 34 (2), 283–299. https://doi.org/10.1007/s10460-016-9705-4.
Monk, A., 2000. The influence of isolation on stress and suicide in rural areas: an international comparison. Rural Soc. 10 (3), 393–403. https://doi.org/10.5172/RSJ.10.3.393.
Morris, C., 2006. Negotiating the boundary between state-led and farmer approaches to knowing nature: an analysis of UK agri-environment schemes. Geoforum 37 (1), 113–127. https://doi.org/10.1016/j.geoforum.2005.01.003.
Natural England, 2015. National character area profile: North Kent plain. http://publications.naturalengland.org.uk/publication/2900242?category=587130.
Newing, H., Eagle, C.M., Puri, R.K., Watson, C.W., 2011. Conducting Research in Conservation: A Social Science Perspective. Routledge.
NFU, 2018. NFU MP Briefing the Voice of British Farming the Agriculture Bill: Five Key Asks at Report Stage.
OECD, 2001. Multifunctionality: towards an Analytical Framework. OECD.
OECD, 2015. Public Goods and Externalities: Agri-Environmental Policy Measures in Selected OECD Countries. OECD Publishing. https://doi.org/10.1787/9789264239821-en.

Potter, C., Tilzey, M., 2007. Agricultural multifunctionality, environmental sustainability and the WTO: resistance or accommodation to the neoliberal project for agriculture? Geoforum 38 (6), 1290–1303. https://doi.org/10.1016/j.geoforum.2007.05.001.
Raffaelli, D., White, P.C.L., 2013. Ecosystems and their services in a changing world: an ecological perspective. Adv. Ecol. Res. 48, 1–70. https://doi.org/10.1016/B978-0-12-417199-2.00001-X.
Randelli, F., Rocchi, B., 2017. Analysing the role of consumers within technological innovation systems: the case of alternative food networks. Environ. Innov. Soc. Transit. 25, 94–106. https://doi.org/10.1016/J.EIST.2017.01.001.
Renting, H., Rossing, W.A.H., Groot, J.C.J., Van der Ploeg, J.D., Laurent, C., Perraud, D., Stobbelaar, D.J., Van Ittersum, M.K., 2009. Exploring multifunctional agriculture. A review of conceptual approaches and prospects for an integrative transitional framework. J. Environ. Manag. 90 (Suppl. 2). https://doi.org/10.1016/j.jenvman.2008.11.014.
Riley, M., 2016. How does longer term participation in agri-environment schemes [re] shape farmers' environmental dispositions and identities? Land Use Policy 52, 62–75. https://doi.org/10.1016/j.landusepol.2015.12.010.
Riley, M., Robertson, B., 2022. The virtual good farmer: farmers' use of social media and the (re)presentation of "good farming.". Sociol. Rural. 62 (3), 437–458. https://doi.org/10.1111/SORU.12390;CTYPE:STRING:JOURNAL.
Robertson, B., Riley, M., 2024. "It's good to show happy cows": understanding farmer–livestock relations through social media. Soc. Cult. Geogr. https://doi.org/10.1080/14649365.2024.2329656. WEBSITE:WEBSITE:TFOPB;PAGEGROUP:STRING:PUBLICATION.
Sagoff, M., 2000. Environmental economics and the conflation of value and benefit. Environ. Sci. Technol. 34 (8), 1426–1432. https://doi.org/10.1021/ES990674D.
Saunders, F.P., 2016. Complex shades of green: gradually changing notions of the 'good farmer' in a Swedish context. Sociol. Rural. 56 (3), 391–407. https://doi.org/10.1111/soru.12115.
Silvasti, T., 2003. The cultural model of "the good farmer" and the environmental question in Finland. Agric. Hum. Val. 20 (2), 143–150. https://doi.org/10.1023/A:1024021811419.
Stoate, C., Báldi, A., Beja, P., Boatman, N.D., Herzon, I., van Doorn, A., de Snoo, G.R., Rakosy, L., Ramwell, C., 2009. Ecological impacts of early 21st century agricultural change in Europe - a review. J. Environ. Manag. 91 (1), 22–46. https://doi.org/10.1016/j.jenvman.2009.07.005.
Stryker, S., Burke, P.J., 2000. The past, present, and future of an identity theory. Soc. Psychol. Q. 63 (4), 284–297. https://doi.org/10.2307/2695840.
Sutherland, L.A., 2020. Finding 'Hobby' farmers: a 'parish study' methodology for qualitative research. Sociol. Rural. 60 (1), 129–150. https://doi.org/10.1111/SORU.12262.
Sutherland, L.A., Darnhofer, I., 2012. Of organic farmers and "good farmers": changing habitus in rural England. J. Rural Stud. 28 (3), 232–240. https://doi.org/10.1016/j.jrurstud.2012.03.003.
Thomas, E., Riley, M., Spees, J., 2020. Knowledge flows: farmers' social relations and knowledge sharing practices in 'Catchment Sensitive Farming.'. Land Use Policy 90. https://doi.org/10.1016/j.landusepol.2019.104254.
Tsouvalis, J., Seymour, S., Watkins, C., 2000. Exploring knowledge-cultures: precision farming, yield mapping, and the expert - farmer interface. Environ. Plann. 32 (5), 909–924. https://doi.org/10.1068/a32138.
Tubbs, C.R., 1997. A vision for rural Europe. Br. Wildl. 9, 79–85.
Tyllianakis, E., Martin-Ortega, J., 2021. Agri-environmental schemes for biodiversity and environmental protection: how we are not yet "hitting the right keys.". Land Use Policy 109, 105620. https://doi.org/10.1016/J.LANDUSEPOL.2021.105620.
Walford, N., 2003. Productivism is allegedly dead, long live productivism. Evidence of continued productivist attitudes and decision-making in South-East England. J. Rural Stud. 19 (4), 491–502. https://doi.org/10.1016/S0743-0167(03)00030-5.
Westhoek, H.J., Overmars, K.P., van Zeijts, H., 2013. The provision of public goods by agriculture: critical questions for effective and efficient policy making. Environ. Sci. Pol. 32, 5–13. https://doi.org/10.1016/j.envsci.2012.06.015.
Wheeler, R., Lobley, M., McCann, J., Phillimore, A., 2023. 'It's a lonely old world': developing a multidimensional understanding of loneliness in farming. Sociol. Rural. 63 (S1), 11–36. https://doi.org/10.1111/SORU.12399.
Wheeler, R., Lobley, M., Winter, M., Morris, C., 2018. "The good guys are doing it anyway": the accommodation of environmental concern among English and Welsh farmers. Environ. Plan. E Nat. Space 1 (4), 664–687. https://doi.org/10.1177/2514848618817487.
Wilson, G.A., 2001. From productivism to post-productivism… and back again? Exploring the (un)changed natural and mental landscape of European agriculture. Trans. Inst. Br. Geogr. 26 (1), 77–102. https://doi.org/10.1111/1475-5661.00007.
Wilson, G.A., 2004. The Australian Landcare movement: towards "post-productivist" rural governance? J. Rural Stud. 20 (4), 461–484. https://doi.org/10.1016/j.jrurstud.2004.03.002.