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RESEARCH ARTICLE

Co-designing the environmental land management scheme in England: The why, who and how of engaging 'harder to reach' stakeholders

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Abstract

1. Agriculture around the world needs to become more environmentally sustainable to limit further environmental degradation and impacts of climate change.
2. Many governments try to achieve this through enrolling farmers in agri-environment schemes (AES) that encourage them to undertake conservation activities.
3. Studies show that AES can suffer from low uptake, meaning their environmental objectives remain unattained. To succeed for people and nature, policy-makers are increasingly adopting multi-actor approaches in the 'co-design' of AES to make them more attractive and inclusive of a full range of stakeholders, including 'harder to reach' farmers.
4. To address why some land managers (principally farmers) may be harder to reach in the context of co-designing England's new Environmental Land Management (ELM) approach, we undertook a quick scoping review of the literature, conducted 23 first-round and 24 s-round interviews with key informants, and held a workshop with 11 practitioners.
5. We outline why farming stakeholders may be harder to reach and how policy-makers can adjust the engagement process to make co-design more inclusive.
6. Based on the results, we make recommendations that could help policy-makers to design better, more inclusive AES that would attract greater uptake and increase their chances of success.

Read the free Plain Language Summary for this article on the Journal blog.

KEYWORDS
agriculture act, Brexit, co-design, environmental land management, harder to reach, inclusive policy development, public goods

Paul Hurley, Jessica Lyon and David Christian Rose co-lead authors

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1 | INTRODUCTION

The aim of our study was to explore and make recommendations on how policy-makers can effectively engage a wide variety of farming stakeholders in the co-design of England's post-Brexit agri-environmental policy reforms. The findings presented also hold relevance for other countries involved in sustainable agricultural policy transitions. As a consequence of Brexit, the Common Agricultural Policy (CAP) of the European Union (EU) is being replaced by policies set out in the new *Agriculture Act* for the UK. While in the EU, all UK nations were governed by the policies of the CAP. However, as agriculture is a devolved issue, England, Wales, Scotland and Northern Ireland are now developing their own strategies to meet UK's environmental objectives and commitments connected to agriculture. Our study was conducted in England, where the Department for Food, Environment and Rural Affairs (Defra) is developing a new Environmental Land Management (ELM) approach that will lay the country's 'path to sustainable farming' (Defra, 2020b).

Post-Brexit agricultural policy reforms are a response to failures of the CAP, which has been the subject of criticism for decades for distorting markets, land prices and leading to over-production (Bateman and Balmford, 2018). It is also blamed for the far-reaching impacts agriculture has had on the environment due to catalysing the intensification, specialisation and homogenisation of agricultural practices (Lowe et al., 1998; *Institute for Government*, 2020). Through measures such as cross-compliance, greening payments and AES (e.g. Environmental Stewardship and Countryside Stewardship in England), the CAP has attempted to ameliorate these negative impacts, but with limited success. Following UK's decision to leave the EU in 2016, Defra (2018, 5) called for 'a more rational and sensitive agriculture policy which promotes environmental enhancement, supports profitable food production and contributes to a healthier society'. The reforms undertaken as a result constitute the 'biggest change in agricultural policy in half a century' (Defra, 2020b, 4). Under a new regime of farm subsidies, three new, complementary, Environmental Land Management schemes (ELM) will be phased in over the next few years (Defra, 2020b). Farmers will be required to manage their land in environmentally friendly ways and deliver environmental 'public goods' like clean air, clean water, improved biodiversity, healthier soils, better natural hazard management (e.g. floods), greater public access to nature and enhanced cultural heritage (Defra, 2020a). This is different to the previous CAP regime, which partially provided subsidies on the basis of land area, rather than how the land was managed.

The far-reaching environmental benefits envisaged under the new policy will only be achieved if a sufficient number and range of farmers and land managers sign up to these new ELM schemes and implement them effectively. To increase the chances of this, Defra has committed to 'co-design' ELM with stakeholders, giving them a say in what the new schemes should look like and how they should work (Defra, 2018). Though definitions of 'co-design', like those of similar approaches such as 'co-production' and 'co-creation', vary in the academic literature (Hickey et al., 2018), the term is generally used to refer to a scenario in which stakeholders have been engaged from the start of a project and given power to shape objectives, methods and ultimately the content of the final outcome (Hickey et al., 2018). Through 'co-designing' ELM with stakeholders, Defra aims to ensure that the policy works for everyone: farmers, landowners, other land managers, government, taxpayers (who finance it) and nature. Inclusivity in this process is key, paying particular attention to engage farmers who have traditionally been 'harder to reach' for the government and may be at risk of being 'left behind' in the transition to ELM.

Our rationale for undertaking this study was to respond to the urgent need for a better understanding of harder to reach stakeholders in policy co-design. Although our focus was on the why, who and how of engaging harder to reach farmers in the co-design of ELM, our findings contribute to several important, related, strands of research and speak to an international audience. Challenges such as demographic change, loss of labour, climate change, soil erosion and biodiversity loss require a transition towards more sustainable forms of agriculture globally (de Boon et al., 2022). Tightening legislative and regulatory baselines will not be sufficient to bring about these transformations. They require social, cultural, behavioural, institutional and organisational change (Ceschin and Gaziulusoy, 2016; Ryan, 2013a, 2013b), and to achieve that, governments in many countries are increasingly turning to their citizens for help, involving them in decision-making processes. For example, the EU in its continuous efforts to reform the CAP promotes a 'multi-actor' approach to developing and implementing new ideas.[1] The co-design of ELM with stakeholders holds important lessons for policy-makers in other international contexts as the basic mechanisms to enhance inclusion are widely applicable (Hurlbert and Gupta, 2015).

Multi-stakeholder dialogues, citizen juries, transdisciplinary learning, co-production and co-design are used to ensure that the perspectives, values and norms of stakeholders are incorporated into policies, products and services developed by governments. They can lead to better outcomes by reducing uncertainties, policy errors and information asymmetries (Blokamp, 2018). However, whether these benefits are derived depends on many factors, including how well planned and executed public engagement exercises are and how well the approaches used are 'embedded within the policy innovation system' (O'Rafferty et al., 2016, 3573). Achieving inclusivity in policy development is challenging. Research shows that common engagement methods such as online consultations or village hall meetings prioritise the voices of the few (generally middle class, formally educated, equipped with IT skills) at the expense of people who are busier and less able to access online surveys, publicly express their views or travel to meetings (Chilvers & Kearnes, 2016). Powerful voices also tend to resonate with government more easily than voices that have historically not been heard (ibid).

Furthermore, studies show that government-led co-design is beset by problems. For example, research conducted in Scotland has shown that state-initiated public engagement tended to fail because of 'the resistances shown by certain departments and officials [and] the multidirectional pull of specific bureaucratic traditions, managerial needs,

departmental cultures, and political agendas' (Escobar 2013, 36–37). In Ireland, an evaluation of the use of co-design for policy interventions called for the 'further development of the theoretical and practical framework of co-design for policy and public services' (O'Rafferty et al. 2016, 3573). A study of policy co-design in New Zealand concluded that the knowledge of what makes co-design work and how the benefits it promises could be achieved was highly inadequate (Blomkamp, 2018). An early study of Defra's co-design efforts between 2018 and 2020 corroborates these findings, noting how Defra struggled with being inclusive and engaging farmers in the process (Tsouvalis et al., 2021; see also EFRA, 2021). This paper, therefore, speaks to broad, international, concerns about how to improve government-led co-design efforts as well as contributing to a growing body of research on 'processes that facilitate farmers as co-designers in addressing complex agricultural challenges' (Eastwood et al., 2021, 1).

'Hard to Reach' stakeholders have been researched from a variety of perspectives, including medicine, social science, social marketing and policy (Brackertz, 2007), to develop a clearer understanding of *who* and *why* people fall into this category and what can be done to better approach and engage them. We know little about how such research applies to farmers. What we do know is that it can be challenging for government to engage beyond the 'usual suspects' in this regard (Hall, 2008; Hall and Pretty, 2008; Rust et al., 2020b). Research has found that some farmers have low social capital (Hall and Pretty, 2008; Rust et al., 2020a), which restricts their ability to access engagement opportunities. There is also a lack of trust between government and farmers as a result of historical AES failures (HSE, 2005; Ingram et al., 2013; Mills et al., 2017; NAO, 2006, 2019).

As argued by Stewart et al. (2019), to make Brexit work for the environment, new agricultural policies need to be informed by stakeholders. If 'harder to reach'[2] land manager communities are not engaged in the co-design of ELM, this could result in an overrepresentation of the usual suspects, a bias towards specific sectors of the industry, and potentially low participation rates in the new schemes. This would make it less likely that policies will achieve their environmental benefits at a landscape scale.

While the literature on how to involve land managers in the co-design of new agricultural policies is scarce—making this study and our paper an important addition—a considerable amount of research has been done on farmer engagement with AES (see Tsouvalis and Little, 2019). It is important to acknowledge this literature as it helps to contextualise our key findings on *why* some farmers may not engage with government, either in the co-design process or scheme uptake. Without a precedent for large-scale policy co-design such as ELM, understanding AES participation also provides indications as to what makes farmers harder to reach. In short, considering research on AES participation alongside our findings on harder to reach stakeholders for agri-environmental policy development offers a more holistic understanding of the factors that influence participation in policy development and scheme implementation. This paper, therefore, contributes important new knowledge to this broader area of inquiry.

Mills et al. (2021) have produced a number of social indicators to explain engagement with AES, illustrating that there are a range of complex socio-economic drivers that influence farmer participation in AES (Boardman et al., 2017; Burton, 2014; Mills et al., 2018). These include financial incentives (Boardman et al., 2017; Coyne et al., 2021; Harkness et al., 2021; Mills et al., 2017). Engagement with previous schemes makes it more likely that farmers will join new or related initiatives (Burton, 2014). Demographics may play a role in participation in AES, including age and education, although the relative influence of these factors is debateable (Burton, 2014). Succession plans and long-term strategies (Ingram et al., 2013) as well as access to trusted advice delivered in a personalised way through individuals with long-term relationships with farmers (Del Corso et al., 2015; Rust et al., 2020b; Sutherland et al., 2013) are further factors that influence AES (Ingram et al., 2013). We also know that access to trusted advice, delivered in a personalised way through individuals with long-term relationships with farmers, is important for scheme participation (Del Corso et al., 2015; Rust et al., 2020b; Sutherland et al., 2013).

Mills et al. (2017) developed a typology of farmer behaviours in the context of active participation in AES (see also Ingram et al., 2013; Mills et al., 2018; Pike, 2008; Wilson, 2014). This included 'disengaged' farmers who were not willing to participate in schemes due to lack of capacity, a dislike of outside interference or scheme inflexibility. Other categories of farmers identified were those 'willing and engaged' (who perhaps lacked the skills or farm support to participate fully), 'able and engaged' (who had no intrinsic motivation to protect the environment and relied on financial incentives) and lastly 'willing and able' (who had a personal interest in the environment but feared loss of control and scheme inflexibility).

Concerning factors influencing farmer participation in the co-design of agri-environment policy at the scale of ELM, no previous research has been done, though we recognise that there may be some overlaps between work on the drivers that play a role in AES uptake and those that influence participation in policy development. However, there are likely to be contextual factors not assessed by previous studies as the transition towards ELM represents a 'fundamental' change in approach from previous forms of AES (Defra, 2018). Our research explored *why* certain individuals are harder to reach and have historically been difficult for government to engage with, *who* they might be in the context of ELM (noting that it will not be a homogeneous group) and *how* Defra (and other government departments) might develop better methodologies to ensure that their voices are heard. To assist with this, we have developed a novel characterisation of harder to reach farmers and land managers based on our empirical findings. This could help policy-makers planning sustainable agricultural transitions to tailor engagement strategies and participatory approaches to policy development that are more inclusive.

2 | METHODS

2.1 | Quick scoping review

Given the 3-month time-scale of this project[3] and the fact that the literature review would be conducted by a single researcher, we opted for a Quick Scoping Review (February–March 2020), which

is a 'condensed version' of a systematic review (Dicks et al., 2017; see Appendix 1 for further details). The Scopus search conducted yielded 417 articles, which following exclusion and inclusion criteria developed by the project team, were narrowed down to 22 sources. These 22 sources were supplemented with eight resources obtained from expert recommendations, bringing the total number of resources used for analysis to 30. The articles were read by the researcher and key notes and summaries were developed. These helped identify themes for further empirical investigation and the creation of an initial set of high-level thematic codes for the review. The literature was manually coded using this initial set of codes while new codes were added inductively based on the content of the literature in an iterative approach. Themes and subthemes were developed from these codes, which were used to organise the structure of the report and supplement the empirical findings. The results of the literature review are presented first in section three (below), because they informed the empirical data collection and analysis.

2.2 | Interviews and workshop

Two rounds of semi-structured expert interviews and a workshop were undertaken to gather evidence from a range of stakeholders with knowledge and experience of engaging harder to reach farmers. Expert interviews, mainly with advisors and people from organisations with relevant experience, were chosen as an appropriate method to research harder to reach farmers who are by definition difficult to access (Bogner et al., 2009). These expert advisors have built trust with harder to reach farmers and their insights on successful engagement strategies are vital for policy-makers, who tend not to interact with farmers on the ground. Interviewees were identified via three routes: (a) existing contacts of members of the research team, who knew them through their work on agri-environment policy and practice and selected them for their relevant expertise in this area; (b) through desk research and 'cold calling' by researchers; and (c) through referral by another respondent.

For the first round of expert interviews, in early 2020, participants (n = 23) included the following: a social researcher in a government department (1); a coordinator, a project manager, a social researcher and a senior adviser in arms-length bodies (4); a chief executive in a national park authority (1); senior managers and engagement practitioners in national farmer welfare charities (8); coordinators of farmer facilitation groups and farmer-run networks (5); agricultural consultants (2); an agricultural manager in a national bank (1); and a full-time famer involved in AES (1). At least six of the respondents were also part-time or hobby farmers, or from an agricultural background. Farmer welfare charities represented a large number of the sample, in part because of snowballing and in part because they were considered to have unique access to farmers who might be harder to reach (Price, 2012). The sample represented a range of size and focus of organisations, of roles within them, and of geographical reach across England (though one interviewee worked with Welsh land managers). Some of the experts interviewed occupied high-level strategic positions in the agricultural industry, overseeing staff who have day-to-day engagement with a very wide range of farmers and who are regular contributors to agricultural policy development. Others, within both large and small organisations, were selected because they themselves undertake direct and hands-on engagement work, providing advice, support or information to farmers, including those defined as harder to reach. Not relying solely on 'elite interviewees' (Van Audenhove & Donders, 2019) for expert knowledge meant that we were able to corroborate the views and experience of those who have more strategic perspectives and influence (e.g. with policy-makers) with those who work directly with harder to reach farmers and understand the methods and strategies they use to engage them.

The interviews (n = 23; 21 via telephone, 1 in person, 1 by email) were undertaken over a period of 4 weeks in February and March 2020. In addition to the 23 interviewees who participated in the research, a further six were approached but declined because of time constraints. The interview process was undertaken under the ethical review process of the University of Sheffield (ref: 026217), as part of which all respondents were sent a participant information sheet and a consent form, and had their personal details anonymised. Following Mason (2002), an interview guide was designed using the research questions (the *why*, *who* and *how* outlined in 2.1) to generate 19 mini-research questions, out of which 12 themes and 42 example interview questions were drawn (Appendix 2). An individualised interview guide was created for each interview, using a selection of questions based on the experience of the interviewee, but with further questions at hand. Audio interviews lasted between 34 and 63 min and the in-person interview lasted for 71 min. All interviews were audio-recorded and transcribed.

We had also planned to hold a series of workshops with farmers and land managers and with people working with harder to reach farmers. Due to the COVID-19 pandemic, social distancing measures meant that just one took place, which was held as a teleconference call with 11 practitioners responsible for delivering current AES in England. This call lasted 55 min and used the same interview guide as a basis, with further discussion facilitated by two members of the research team.

The interview and workshop transcripts were thematically coded (manually, no software) against the research questions designed in response to the project objectives: (a) How do we identify harder to reach farmers?; (b) What are the barriers to interaction?; (c) How might we overcome these barriers?; (d) How can we ensure the findings are relevant to the development of ELM? Short quotes from the interviews are presented in inverted commas and are anonymised using numeric identifiers.

We undertook a further round of 24 interviews in 2021, as part of a wider study, but asked interviewees to reflect upon a characterisation of harder to reach farmers that we had created from the analysis of the original set of interviews (Appendix 3). In this paper, we used the views of these additional interviewees only to refine the original characterisation (Appendix 3), a new version of which is presented in Figure 1. In all, 12 of the original interviewees agreed

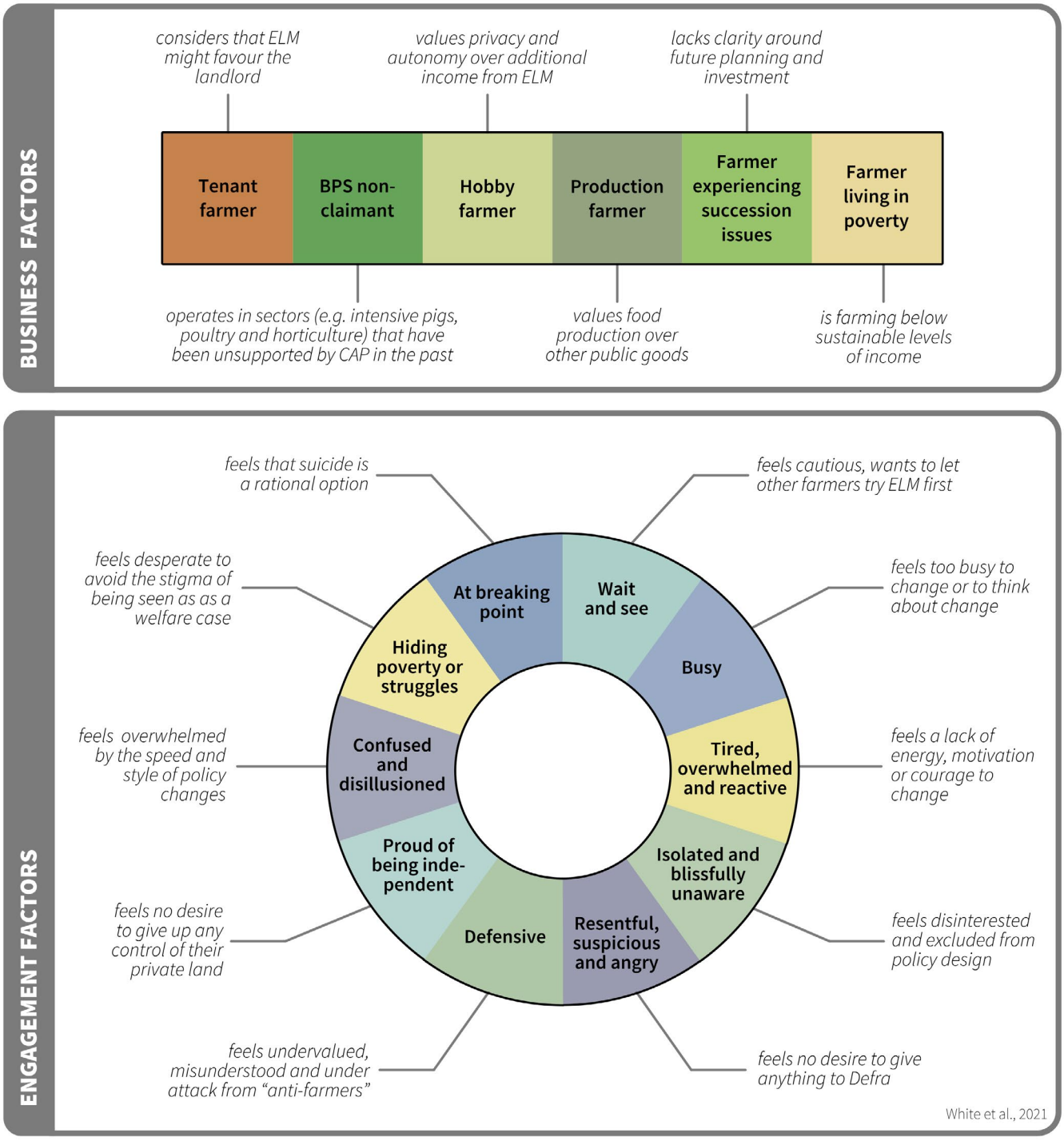

FIGURE 1 Characterisation of business and engagement factors which make co-design difficult

to be re-interviewed and 12 additional individuals, who performed similar advisory or support roles with farmers, were recruited. All 24 were asked to comment on an initial draft of the characterisation and to suggest improvements—for example, if any types of farmers were missing. This helped in the process of refinement and validation. These interviews were analysed in the same way as the previous interviews.

2.3 | The 'hard to reach' concept as used in the literature: Findings from the quick scoping review

'Hard to reach' is a term that has been used to describe people who are difficult to contact or engage with and therefore often omitted from research, policy and underserved by extension services. The terminology has been used in a variety of areas/fields including social

marketing, medicine, the public sector and research (Brackertz, 2007; Bonevski et al., 2014). Hard to reach people are said to require more time, resources and money to engage with and therefore are left out of policy discourse as it is not seen as cost-effective to attempt to engage with them (De Pascale et al., 2017; Khanal et al., 2019; Stringer et al., 2020). Alternative terms exist, including 'left behind', 'disengaged' (Mills et al., 2017), 'marginalised', 'refusers' (Flanagan and Hancock, 2010), 'not in contact' (Dunne et al., 2019), 'seldom heard' (Jones, 2018), 'easy-to-ignore' (Lightbody, 2017) and 'easy-to-omit' (Johnson, 2011). Each term brings dynamics of power, agency, visibility and representation. The terminology can lead to generalisations of people, treating them as a homogenous group, attaching a stigma to the phrase 'hard to reach', which can be prejudicial (Whitnell, 2004).

Despite the unhelpful ways in which the term 'hard to reach' is often used, it acknowledges that the omission of 'less heard' individuals leads to a bias and over-representation of the 'usual suspects'. This can lead to an inaccurate representation of a policy area and a false perception of a threat or problem (Bonevski et al., 2014). Here, we use the term 'harder to reach' as a comparative adjective ('harder') that illustrates a scale of engagement rather than a fixed position or identity ('hard').

2.4 | Why can farmers be 'harder to reach' when co-designing AES?

Different practical as well as behavioural, attitudinal and personal barriers can hinder policy-maker contact with different types of farmers. Harder to reach farmers are a heterogeneous group, and there are a number of factors that determine their capacity or motivation to engage with policy-makers. Below, we take a factor-based approach using our interview and workshop findings to identify reasons why some farmers may be harder to reach for policy-makers. We acknowledge, however, that many of these factors are interlinked and overlap. We therefore note that throughout the following section, certain factors modify others. For example, older farmers (age) may be more likely to suffer from the digital divide as a result of lower digital skills. Farm type can determine social capital and historic engagement with policy-makers, which can affect trust and previous experiences of engagement. These intersects need to be recognised when considering the individual factors outlined below:

2.4.1 | Lack of time

In interviews and workshops, lack of time was frequently mentioned as a barrier to farmer engagement in ELM co-design. An interviewee working for a national rural consultancy firm observed:

> A lot of pressure is put on one or two people. So if you're milking yourself, personally, 12 milkings a week, you don't have a lot of spare time to sort of engage with some of these processes. (I2)

This view was echoed by a respondent from a regional rural support network who said that when confronted with engagement exercises for ELM, some farmers would think '*I'm so busy, I haven't got time to think about it*' (I1). This would make it harder for busy farmers and those with fewer staff to contribute to the new policy.

In the literature reviewed, lack of time was cited as a common reason for farmers not engaging with (or avoiding) government and extension services (Kinsella, 2018). Studies found that many farmers respond to calls to participation with 'too busy' (Jansen et al., 2010), or initially agree to be involved but then stop due to a lack of time or loss of interest (Sutherland, 2019). Several studies found that part-time farmers and those with off-farm work are more likely to be harder to reach (Kinsella, 2018; Dessart et al., 2019; Dunne et al., 2019), for this reason (Richardson-Ngwenya et al., 2018). When farmers do spend time engaging with advisory services, they tend to seek short-term advice on how to understand and apply for current subsidy schemes rather than advice on long-term innovation and development strategies that could improve their farm over time (Dunne et al., 2019; Kinsella, 2018). They may already be inundated with applications and paperwork of current payment schemes and rather spend any spare time they have on the farm or with their family (Richardson-Ngwenya et al., 2018).

2.4.2 | Negative previous experiences and complex bureaucracy

Our qualitative fieldwork also showed that negative experiences of previous scheme bureaucracy inhibited engagement with ELM co-design. Interviewees were disconcerted by the length of the initial ELM consultation documents and this perceived complexity was often elided with the off-putting 'red-tape' and additional workload associated with engaging in government schemes. This was a common theme of discussion in the workshop and a member of staff at a farmer support network noted that farmers find it '*really difficult to try and navigate that*' (I21).

Complex policy administration and high levels of bureaucracy are commonly noted as barriers to engagement in the literature. Farmers see AES and other paperwork requirements, which consultation and co-design can resemble, as time-wasting and frustrating (Hall, 2008; Lyon, 2019). The complex nature of schemes is highlighted by Dunne et al. (2019) who found that 55% of farmers in Ireland ($n = 270$) had to use advisors to help with various tasks, whereby 94% of the advisor's time was spent on giving scheme or regulatory advice. The literature review further suggested that a lack of policy consistency or land manger 'buy-in' to policy was a major reason for lack of farmer engagement. Sometimes, the information and advice given to farmers can be contradictory even if it is coming from the same source (Vrain and Lovett, 2019; Rose et al., 2019).

2.4.3 | Digital divide

Both the qualitative fieldwork and literature review showed disparities in technology provision and utilisation to be key reasons why

some farmers found it difficult to engage in scheme co-design. Almost all respondents spoke of '*poor internet and digital connectivity*' (I3), with many farmers suffering from '*pretty crap [or no] broadband*' (I8) or phone lines that regularly '*go down*' (I18). The lack of connectivity meant that individuals could not respond to online government consultations, of which there have been two major rounds in the co-design of ELM, as well as several online co-design webinars. Additionally, as a member of staff at a regional agricultural support service noted, many farmers are '*not really computer literate*' (I3) or, like one Senior Executive observed,

> …a few of my landowners didn't want to be contacted by email because they don't have email. (I16)

The 'digital divide' in rural areas persists, especially in remote areas where there is a lack of consistent broadband connections (Cameron et al., 2016; Rose et al., 2016; Wright et al., 2016). Technologically disadvantaged farmers are more likely to be harder to reach and their sense of isolation is likely to have increased during the COVID-19 pandemic. The digital divide between smaller farms and larger, corporate farms can also result in larger farms becoming more productive, profitable, economically stronger and gaining more political power. Without special efforts made to engage smaller farms, they are likely be left out of ELM co-design (Wegren, 2018).

2.4.4 | Low social capital

Echoing findings from previous research, isolation and low social capital among many farmers were widely discussed. Social capital refers to the relationships, trust and solidarity that occurs between individuals, groups and networks (Hall, 2008; Rust et al., 2020a). High levels of social capital, characterised by rich networks of diverse people, support the exchange of information and ideas, which can lead to mutually beneficial collective outcomes. Farmers with a high degree of social capital can learn and develop from their networks, have collaboration opportunities, and are exposed to new innovations and supported in their implementation. Individuals with low social capital can be isolated from their peers and government, making it less likely for their behaviour to be influenced by others.

This employee from a farming support charity noted that socially isolated farmers were

> …the most vulnerable probably because they're the ones who clam up, don't go out, don't meet. (I20)

This view was echoed by a practitioner responsible for delivering current AES in the workshop who observed that '*some people are… very shy*' (I19), and by a Senior Executive in the farming industry (I16), who described some farmers as '*remote, isolated, probably a bit nervous and a bit frightened to ask for help*'.

An interviewee working for a farming support network also suggested that isolation could be getting worse in some areas:

> The reality is there are very few people driving up and down farm lanes, maybe the postman and the vet, and there will be nobody else, whereas 20 years ago you would have sales reps, you would have had the Department of Agriculture advisors. There was a network of support behind farmers and their businesses that just isn't there in the same way anymore. (I21)

Concerns were also raised around relations between social disconnectedness, anxiety, stress, and depression and their impacts on harder to reach farmers: '*they're very hard to access, these people, because the point is that they've gone to ground*' (I4).

In the literature reviewed, many of these factors were also identified, and low self-esteem was noted as a reason for some farmers not wanting to participate in AES for fear of being exposed as a 'bad' farmer (Kinsella, 2018). Those in remote locations have fewer opportunities to meet others in society, whether that is their peers, local non-farmers or government agency representatives (Hall, 2008; Rust et al., 2020a). Farmers in remote locations are thus less likely to meet or have access to neighbours that have participated in co-design activities or implemented AES on their farm (Fischer et al., 1996). This could prevent them from building strong relationships with peers who are participating in the co-design of ELM (including of collaborative strands like ELM's Landscape Recovery) and who may otherwise have encouraged them to also get involved.

2.4.5 | Trust

The relationship between farmers and government organisations is influenced by past experience. A respondent who works as a Senior Executive advising farmers suggested that many farmers were afraid to engage with government:

> …many farmers, particularly the hard to reach farmers, would find Defra even more disturbing and more frightening. I think they would find that conversation really difficult. (I16)

This distrust, or '*natural suspicion*' (I1) of government and its agencies, may be due to fears about receiving financial penalties for bad paperwork or failed inspections, or past delays in receiving payments. One respondent working for a regional farming support service noted that:

> …if you got an inspection, and you had cows without tags in or lost tags, you would get a penalty on your basic payment scheme payment and your

> agri-environmental payment. So there's quite a lot at stake, and quite a degree of fear of getting it wrong that makes engagement difficult. (I3)

This was echoed by a respondent working for a different regional rural support network who explained that:

> I don't want to actually have my voice heard, because there might be some penalty coming down the line, I might fill the forms in wrong. (I1)

This confirms Hall and Pretty's (2008) view that harder to reach farmers may actively self-exclude themselves from engagement activities for fear that they have breached rules and regulations. In these situations, especially when little time has been dedicated to building a relationship, distrust and social distance can be the rational option (Hardin, 2004; Larson, 2004). The importance of strong, trusting relationships in the delivery of effective AES is well documented, with farmers trusting some advisors more than others, particularly those who they have formed strong bonds with and who act in a trustworthy fashion (e.g. Sutherland et al., 2013; Mills et al., 2017; Vrain and Lovett, 2019). Benefits of trust include lower transaction costs (Dwyer et al., 2007) and adherence to more sustainable social norms of land management with decreased opportunism (Inman et al., 2018). Trust also underpins farmer collaborations (Jansen et al., 2010; Rose et al., 2018; van Dijk et al., 2015) and hence an individuals' willingness to work with others at a landscape scale (Prager, 2019), for example, to repair fragmented ecosystems and create a nature recovery network (HMG, 2018). The obvious outcome of distrust is that some harder to reach farmers will decline participating in ELM co-design.

2.4.6 | Low income/different priorities

Social isolation can also be linked to income levels. Some farmers live on very low incomes or farm below subsistence levels. This creates both mental and practical barriers to engaging with peers, networks, organisations and services, as discussed above. As one practitioner involved in the workshop noted:

> …there are quite a proportion of farmers who do not make a profit, and they will be often hard to reach.

In the literature, some farmers feared that sustainable management schemes could decrease their revenue. This was noted as a major obstacle for landowner participation in carbon sequestration programs in the United States (Khanal et al., 2019). When evaluating the costs and benefits of schemes, farmers and land managers may not view management schemes objectively and have a 'present bias', that is, place disproportionate weight on immediate costs and benefits than future ones (Dessart et al., 2019). This bias can have particularly far-reaching effects in the case of sustainable farming practices that may entail immediate costs (e.g. in the form of new machinery or reduced yield), but will not lead to noticeable benefits until sometime in the future (e.g. ecosystem benefits such as soil retention; Dessart et al., 2019).

The literature indicated that some farmers may have different farm management priorities that do not match with the sustainable objectives of AES. This can restrict engagement in scheme development. Specifically, some farmers prefer to retain the cultural capital of farming by prioritising a farm that is 'tidy' and well managed to one that has wild growth and field margins beneficial to biodiversity (Burton et al., 2008; Sutherland, 2019). Understanding these different motivations and priorities prior to calls for participation are key to understanding how farmers may, or may not, respond to them.

2.4.7 | Age

There are studies that show that some older farmers prefer to slow down on farm development and spend time on other activities. Kinsella (2018) found that older farmers who lacked succession plans were also harder to reach. Several studies also found that smaller farms and older farmers were less likely to have the access to, and knowledge of, technology (De Pascale et al., 2017; Machum, 2005).

Our fieldwork identified a recurrent connection being made between non-engagement and age. For example, one workshop participant observed that:

> One of the big handicaps we have is that the principal stakeholders are, like myself, in their senior years and they're growing old and tired, and, you know, don't have the energy or the time to engage with all of this.

Another respondent, from a national farming organisation, spoke of the challenges of engaging some older farmers:

> Whereas the older you are the less inclined you are to change and we do find it, sometimes, difficult to get our older members to engage with some of the new thinking that appears to be out there. (I18).

The difficulty of older farmers engaging with new thinking could present a major potential obstacle for the co-design, and subsequent uptake, of ELM, especially as the median age of a UK farmer in 2016 was 60.[4]

2.4.8 | Farm type

Engagement with AES is also influenced by farm type. Small farms were a recurring identifier, which one respondent, who works for a regional farming support charity, described in relation to attitude and ability to engage:

> They tend to be the small family businesses, or just one person working on their own, on the farm… their knowledge of the world tends to be restricted by the farm gate if you like. Fairly inwardly-looking. (I3)

The literature showed that smaller farms with a lesser resource base run a greater risk in adopting new practices, compared to larger farms that can benefit proportionately more (Röling et al., 1976; Winter and Lobley, 2016). Several studies showed smaller farms to be late adopters, more risk averse and harder to reach (Somers, 1991; Machum 2005; Hall 2008; Wegren, 2018). As mentioned in the section on income barriers to participation, the 'present bias' will play a part in the risk perception of ELM. Farmers' decisions may be more affected by the risk of yield loss which could occur by participating in ELM rather than the potential gains to be made from reduced input costs and payments occurring in the future (Dessart et al., 2019; Pike 2008).

Practitioners in the workshop also identified other farming enterprises as being harder to reach in the context of ELM:

> Pig and poultry producers, smallholders, horticultural enterprises, contract farmers, tenants or those with farm business tenancies, and absentee landlords, i.e. those who are not BPS claimants… have not been used to taking any state funding. (IX)

The challenge of engaging those who have not historically needed to (or been able to) claim environmental subsidy also extends to hobby farmers and smallholders, who Defra would like to engage in scheme co-design, but who may not think that the policy is going to be relevant to them and so will decline to contribute.

Financially locating harder to reach farmers and land managers also pointed us to a perhaps under-considered segment of wealthy and/or successful farmers—particularly focusing on the horticulture sector. A respondent from a government organisation said:

> [on] grade one agricultural land, multi-annual cropping, cabbage, leeks, carrots, very highly productive, again sometimes quite small farms…they have never really engaged with any previous pillar one support mechanisms and never really engaged with the agri-environment, principally because it is productive land. (I22)

2.4.9 | Disabilities

A Senior Executive advising farmers commented that further research is needed on the potential impact of learning disabilities on farmers' ability to engage with government consultations: '*research shows there is often increased dyslexia [and] increased levels of autism in the agricultural sector*' (I16). On the subject of dyslexia, the NFU Scotland (2020) concurs that it could be higher within farming communities, and should, therefore, be taken into account when designing inclusive forms of policy engagement.

2.5 | Who are 'harder to reach' in the context of ELM?

Stakeholder mapping is a useful exercise to determine the types of people that should be included in engagement exercises (Reed et al., 2009) and this could take the form of segmentation. Various attempts have been made to segment farmers into specific behavioural groups to describe their characteristics (Wilson, 2014). In the UK, work has been done by Defra to categorise farmers (Pike, 2008) and more specific segmentation attempts have been undertaken in regard to agri-environment scheme participation and the development of social indicators of engagement (Mills et al., 2017). We used the insights gained from the literature review and the qualitative fieldwork to characterise a number of different types of harder to reach farmers and the feelings/views that could impact on their participation in the co-design of ELM. The characterisation we produced in 2020 (Appendix 3) was then validated and refined through interviews conducted in 2021. This iteration is presented with a word of caution, and we emphasise that it proposes characterisations rather than definitive categorisations. These characterisations should only be taken as a guide to understanding farmer behaviour as they obscure important differences within—and similarities between—the identified groupings. Typologies are generally based on specific assumptions and tend to ignore interactions between different types of farmers, farmers moving between different types over time, and gaps between what people say they value and what they actually do in practice (referred to as the 'attitude-behaviour gap'; Brockett, 2019; Burton, 2006).

Figure 1 illustrates different business and engagement factors that can explain why some farmers are harder to reach in the context of the co-design of ELM. Business factors explain why some types of farmers—Basic Payment Scheme non-claimants (i.e. those not traditionally in AES), hobby farmers, tenant farmers or those lacking a succession plan limiting the ability to make long-term decisions, low-income farmers and those more focused on production—may not feel as though ELM is relevant to them, so will not participate in co-design. Some analysts have claimed, for example, that horticultural growers (who would be classed in our characterisation as being 'BPS non-claimants') are feeling ignored in the pilot of one component of ELM (Kay, 2021).

Other engagement factors also explain why some harder to reach farmers do not want to, or cannot, participate. These factors are further developed in Figure 1, but refer to both the farmer's ability to participate in ELM co-design (lack of time, too busy, not aware of the opportunity) and their lack of motivation to do so (caution, lack of trust in government, personal attitudes, or feeling overwhelmed, impoverished or suicidal).

3 | DISCUSSION AND RECOMMENDATIONS

This section explores the significance of our results in relation to the academic literature and to the development of policy relevant recommendations aimed at assisting policy-makers in overcoming the challenges of engaging harder to reach farmers in the co-design of agri-environment policy. The factor-based barriers to inclusion in agri-environmental policy design, which overlap and are interlinked, are likely to be broadly applicable (notwithstanding different contexts) to other countries undergoing agricultural transitions, particularly where a multi-actor approach is specified, such as in the reform of the EU's CAP.

There are parallels between many engagement factors noted in that literature and identified by our research (Ingram et al., 2013; Mills et al., 2017; Mills et al., 2018; Rust et al. 2020a, 2020b). Lack of time, distrust, bad previous AES experiences, low social capital, digital divides and demographics have all been cited as key reasons limiting participation in active AES across the world, but our research has found that they are also influential in policy co-design for sustainability transitions. Additionally, our findings illustrate that a lack of time or disabilities like dyslexia can prevent farmers from engaging (e.g. in responding to written consultations) or signing up to schemes. Further research is needed to explore how government-led public engagement processes can be made more inclusive of those with disabilities.

Concerning multi-actor stakeholder engagement for agricultural policy transitions, we have also found that some groups of stakeholders, who have historically not been part of sustainable farming initiatives, could be difficult to include in ELM co-design (e.g. pig and poultry farmers, horticulturalists, hobby farmers and commoners). We found that these groups feel that they will not benefit from ELM or do not have the social capital with networks who are contributing to ELM co-design, therefore finding it hard to find a way into the engagement process. For policy-makers involved in agricultural policy transitions, it will be important to pay particular attention to how to engage new targeted groups of land managers that have historically not participated.

Our research gives further weight to studies which highlight how challenging it can be for policy-makers to include a wide range of stakeholders in policy-making processes (Blokamp, 2018; O'Rafferty et al. 2016; Escobar, 2013) The very fact that we have identified many of the same attitudinal, cultural and practical barriers to stakeholder engagement as many previous studies indicate that little progress has been made in addressing these problems, which should be addressed with renewed urgency given the high stakes involved. Based on our empirical research and the previous literature, we now provide key recommendations for policy-makers planning to adopt a multi-actor approach to agricultural policy transitions.

3.1 | Make engagement beneficial for stakeholders

A key learning from our research is that multi-actor policy transitions must ensure that engagement is beneficial for target stakeholders. Stakeholders need to see how their involvement leads to policy development, and whether and how they have been heard by policy-makers. In the context of our study, this means that very different types of farmers need to see the benefits they could derive from getting involved in ELM co-design, including farmers who are struggling or who are as yet unaware of potential benefits, or who have enterprises that have not historically relied on environmental subsidies. Our interviewees spoke of farmers not seeing '*the value in contributing*' (I21) to the design of ELM or feeling as if Defra were leading the engagement rather than farmers doing it '*on [their] own terms*' (I14).

Policy-makers need to understand what motivates different stakeholders from engaging in policy development, highlighted by our typology of farmers' motivations for participating in AES. Different engagement strategies will be needed for each type of individual. Agri-environment policy transitions need to be dynamic and tailored towards the motivations of individuals, whether farmers from different enterprises, or stakeholders from different communities, such as foresters or gamekeepers.

3.2 | Close the digital divide and boost digital skills

Both the literature and interviews made clear that the rural digital divide prevents many stakeholders from engaging in online consultation exercises. This is a global problem and illustrates the need for caution in all multi-actor policy design processes that utilise digital approaches. In England, Defra has used in-person methods, although these have been heavily disrupted by the COVID-19 pandemic. However, two major online consultations were also carried out, and online webinars were held. It is likely that many farmers were excluded from participating in these for the reasons outlined. To address the problems identified, three actions are needed.

First, rural connectivity needs to be improved urgently. If the co-design of new AES relies partly on online delivery, rapid investment is needed in broadband and mobile phone infrastructure development, and support needs to be given to those who cannot afford ICT equipment. Second, improving connectivity to allow responses to online consultations is insufficient to foster Internet access without investing in building digital skills. As one farmer support network representative noted, two-thirds of their members '*haven't got the skills or the confidence to do stuff online*' (I8) even if they had the technology. Investment is needed to provide this support and help farmers adapt to digitalised farming systems. Third, and most importantly, even if progress is made on these two fronts, policy-makers should make more non-digital options available to those wanting to respond to engagement exercises and to sign up to the policies once available. In our study, practitioners supporting farmers in current AES noted in the workshop that many preferred to have '*paper copies*' (I8) with many of their clients likely to be unaware of the 'digital by default' agenda.

3.3 | Increase the accessibility of engagement processes

Bureaucracy has a key role to play in both generating and eroding trust. Engaging with bureaucratic processes, whether a consultation

or a multi-faceted co-design process, requires the stakeholder's positive assessment of risks, plus likely costs and benefits. It also requires certain skills and commitment to a challenging administrative process where the outcome can be unclear. This process can be made more challenging for farmers unused to filling in forms or who, like many people in the general population, have disabilities such as dyslexia or dyspraxia. Consultation exercises linked to AES co-design or wider agricultural transitions must be accessible to all.

3.4 | Enhance trust through skilled intermediaries

In England, Defra (2021) have recently committed to exploring the role of accredited advisers in ELM, but have also announced a competition to provide funding for trusted advisers to help farmers make the transition towards new policies. Interviewees spoke of the need to enhance trust, particularly amongst those farmers who are remote, isolated and have very low levels of generalised trust. Trusting relationships are key to behaviour change, and as we have seen above, the lack of these trusting relationships represents a barrier to engagement for Defra and other organisations who administer current subsidy payments. As noted in the interviews, it is important to '*acknowledge that farmers may have a longer institutional memory of AES than many Defra staff*' (I6).

To gain farmer and land manager input to the design of ELM and into agricultural policy transitions elsewhere, engagement is likely to be most effective if done through skilled and trusted intermediaries (White et al., 2021). As evidenced by the literature, collaborating with different groups, organisations, and actors increases the likelihood of farmer's receiving information from a source they trust and share a relationship with (Nwankwo et al., 2009; Ehlers and Graydon, 2011). Interviewees highlighted a number of 'allies and close supporters' of the farming community, including charities, fellow farmers, the rural church and many sympathetic groups (e.g. agronomists, vets, bank managers, national park rangers) whose involvement in policy engagement exercises would be useful.

These intermediaries know the most suitable way to communicate with harder to reach farmers (Nwankwo et al., 2009; Ehlers and Graydon, 2011). They need strong, interpersonal skills, be trained and experienced in agri-environment issues, be preferably paid for by government, be easily accessible to farmers and land managers, and be encouraged to stay in their post for a long time to develop a relationship with farmers and enhance institutional memory (Sutherland et al., 2013). Many of these aspects were perceived to be lacking in our study, with government or extension staff being described as '*lacking interpersonal skills*' or '*not caring about people*' (I16). Most importantly, the payment mechanisms for advisers need to be addressed since '*the reality is for a lot of small farm enterprises or farm families, the money just isn't there for paying for outside consultancy*' (I21).

4 | CONCLUDING REMARKS

Our research contributes important insights into why some farming stakeholders may be harder to reach for policy-makers, as well as how to involve multiple actors more effectively in agricultural policy transitions, such as that of ELM in England. With certain adjustments tailored to the needs and socio-political and cultural characteristics of other countries, the paper also holds important international relevance. Governments in many countries are intent on achieving agricultural transitions towards greater sustainability, and many are committed to doing so in collaboration with their farming communities (de Boon et al., 2022). Our study makes a significant academic contribution by providing a deeper understanding of what achieving 'inclusivity' means and entails in policy co-design. Without the contribution of a wide range of stakeholders to the development of new agri-environment policies—be it in England with the co-design of ELM or in the European Union's multi-actor approach to CAP reform or elsewhere—it is less likely that agricultural transitions will be inclusive and supported by enough land managers to achieve their desired environmental and social objective.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHORS' CONTRIBUTIONS

R.L. conceived the idea and P.H., J.H., J.L., R.L. and D.C.R. designed the methodology; P.H., J.H., J.L. and V.W. collected the data; P.H., J.H., J.L. and V.W. analysed the data; All authors contributed to the interpretation of the data; P.H. and J.L. led the drafting of the primary source material (2020 project reports); V.W. drafted the secondary source material (2021 project report) and refined figures; D.C.R. led the writing of the manuscript at all stages; All authors contributed critically to the drafts and gave final approval for publication.

DATA AVAILABILITY STATEMENT

Confidential social interview data are not publicly available. Due to the sensitive nature of talking about 'harder to reach' farmers, reasons for this, and the need for intermediaries to share personal anecdotes, the data are too sensitive to share. This was a short, rapid policy project with no resources available for data anonymisation, which would have been difficult due to the personal nature of the interviews.

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ENDNOTES

[1] https://ec.europa.eu/eip/agriculture/en/about/multi-actor-projects-scientists-and-farmers

[2] While some literature has used the term 'Hard to Reach' as a noun to define a homogeneous group, we use the term 'harder to reach' as an adjective to describe individuals that are less engaged with government due to a wide variety of factors and negative past experiences that have reduced their incentive to engage.

[3] The research was conducted using short-term, responsive-mode QR policy funding, necessitating a 3-month time-scale for the initial set of interviews and a shorter period for the second round.

[4] Defra (2018) Agriculture in the UK, page 8.

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SUPPORTING INFORMATION

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