**Co-designing the Environmental Land Management Scheme in England: the why, who,
and how of engaging ‘harder to reach’ stakeholders**

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DATE: 19/06/20

DOI: (as listed on pre-print server)

VERSION: 1.0

Pre-print – this paper has not yet been peer reviewed.

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Abstract

After leaving the European Union and the Common Agricultural Policy (CAP), farmers and land managers in England will no longer receive payments based on how much land they have, but rather how they manage the environment. The new Environmental Land Management (ELM) scheme in England will reward farmers and land managers with public money for the provision of various public goods, including improved biodiversity, cleaner air and water, healthier soils, and natural hazard protection. Since the new scheme represents a dramatic shift away from the previous subsidy regime, the Department for Environment, Food and Rural Affairs (Defra) has committed to ‘co-designing’ the new policy. To this end, Defra have invited farmers and land managers across England to share their views on what the new policy should look like, running two major online consultations, outreach workshops, and a network of nationwide ‘Test and Trials’ to date. We know, however, from previous research on land manager participation with government that participation can be unequal with a set of ‘usual suspects’ dominating engagement and a substantial group of ‘harder to reach’ stakeholders being less involved. Defra wants 82,500 holdings to participate in the new ELM scheme and thus wide engagement in both design and implementation is crucial. This paper explores why some land managers (focusing on farmers) might be ‘harder to reach’ in the context of ELM, who they might be, and how Defra can improve its forms of engagement to ensure that no-one is excluded from the co-design process. We identify ten different predispositions towards ELM that harder to reach farmers might have and make six recommendations that could help Defra improve ELM co-design and delivery: (1) *make engagement worthwhile*, (2) *offer online engagement activities whilst improving connectivity*, (3) *reduce bureaucracy*, (4) *enhance trust through skilled intermediaries*, (5) *pay farmers promptly*, and (6) *ensure transitions to the new scheme are well-managed*.

Keywords: Agriculture Bill; Brexit; Co-design; Hard to reach; Inclusive policy development; Public goods

Funding statement

This project was funded by The University of Sheffield QR Allocation for Evidence-Based Policy-Making from Research England. It sits within the broader ESRC-funded project ‘Agri-Environmental Governance Post-Brexit: Co-production of policy frameworks’ (ES/S007830/1), a collaboration between the Universities of Sheffield and Reading. The authors of the report are grateful for conversations with representatives of the UK Department for Environment, Food and Rural Affairs (Defra) in the co-design of this research, which helped to ensure its relevance for policy and programme delivery. DCR thanks the Elizabeth Creak Charitable Trust.

Author contribution statement

As co-lead authors PH and JL undertook the empirical research and wrote the project report on which this paper was based. JH also contributed significantly to the empirical research and the project report. PH, JL and JH edited a draft of the manuscript. JT and RL edited the project report and manuscript with RL winning funding and overseeing the project. As senior author, DCR edited the project report and wrote the first draft of the manuscript and led on incorporating edits into the final draft.

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Hurley, P., Lyon, J., Hall, J., Little, R., Tsouvalis, J., Rose, D. C. 2020. Co-designing the Environmental Land Management Scheme in England: the why, who, and how of engaging ‘harder to reach’ stakeholders (DOI as listed on pre-print server)

1. Introduction

The United Kingdom left the European Union on January 31st, 2020. As negotiations continue about the nature of post-Brexit arrangements between the UK and the EU, it is certain that the Common Agricultural Policy (CAP) will be replaced by policies set out in the new *Agriculture Bill*. The Common Agricultural Policy, distributed Pillar 1 money to farmers and land managers based on how much land they had, rather than what they did with it, with the aim of guaranteeing minimum levels of production (Grant, 2016). The CAP has received many criticisms, not only for its effects on markets, land prices and over-production (Bateman and Balmford, 2018), but also for its impact on the environment, with the policy catalysing the intensification, specialisation, and homogenisation of agricultural practices (Lowe *et al.*, 1998; Institute for Government, 2020). Through added measures such as cross-compliance, greening payments, and the development of funding for Agri-Environment Schemes (AES), the CAP has attempted to diminish these negative impacts, rewarding farmers and land managers for environmental protection measures. However, the success of these measures has been limited and their administration, integration, and budget distribution has been criticised. Some have also argued they have been overemphasised in policy discourse to alleviate any environmental concerns (Erjavec and Erjavec, 2015).

To address these concerns post-Brexit, the Department of Environment, Food and Rural Affairs (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.’ This aim was encapsulated in the *Agriculture Bill*, which represents the most significant shift in agricultural policy in a generation, setting out a new regime of farm subsidies where public money is given for the provision of various public goods supplied on farmland. These public goods include cleaner air, cleaner water, improved biodiversity, healthier soils, better natural hazard

management (e.g. floods), greater public access to nature, and enhanced cultural heritage (Defra, 2020). Since agricultural policy is a devolved issue in the United Kingdom, the *Agriculture Act* refers mainly to England, although similar ‘public money for public goods’ schemes are being developed in the devolved nations (e.g. ‘Brexit and Our Land’ consultation in Wales). The UK government’s commitment to a natural capital approach is further illustrated by its 25-year Environment Plan, Clean Growth Strategy and *Environment Bill* and there is hope that these different policies and pieces of legislation will complement each other.

In England, the new agri-environment policy will be delivered through the Environmental Land Management (ELM) scheme, planned to be phased in from 2024, and to replace the Basic Payment Scheme (BPS) (Pillar 1 CAP payment scheme) completely from 2028 (Defra, 2020). Defra intends to provide stakeholders with a greater say in how the new ELM scheme will materialise and aims to ‘co-design’ it with a variety of stakeholders (Defra, 2018). Though definitions of ‘co-design’, like those of similar terms 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.

Through their aim of ‘co-designing’ the new ELM scheme with stakeholders, Defra confirms that they are trying to ensure that the policy works for everyone: farmers, landowners, other land managers, government, taxpayers (who finance it), and the environment. Defra’s target is that 82,500 individual land holdings will sign up to the new scheme (Farmers Weekly, 2019). Therefore, they need to engage as many people as possible in its design to ensure it is practical, gains the support of farmers and land managers, and finds wide uptake (Tsouvalis and Little, 2019; Defra, 2020). However, decades of social science research show that government finds it

challenging to engage beyond the ‘usual suspects’ when reaching out to land manager communities (Hall, 2008; Hall and Pretty, 2008). Some farmers have very low social capital (Hall and Pretty, 2008; Rust *et al.*, 2020a), restricting their ability to access engagement opportunities, plus there is a lack of trust between government and farmers as a result of historical failures of productive engagement (HSE, 2005; NAO, 2006). More recently, trust has been further eroded by the payment issues linked to the Rural Payment Agency’s administration of the Countryside Stewardship scheme. Common participation methods used to engage publics, such as online consultations or village hall meetings, have been criticised for prioritising the voices of the few (middle-class, more formally educated, retired with more time), rather than those who are busier, less able to access online surveys, less willing to put forward their view in front of others, and less able to travel to formal meetings (Chilvers and Kearnes, 2015). We know also that unequal power relations can affect the ability of stakeholders to respond to engagement exercises. Already powerful voices find the mark with government much more easily than voices that have not been historically heard (*ibid*). Thus far, Defra have used a number of approaches to engage stakeholders, including two rounds of consultation announced online, workshops with farmers (through strategic engagement groups, such as Farmer Facilitation Funds), a network of ‘Test and Trials’ across England where multi-stakeholder groups are working towards a shared objective, plus roadshows and webinars (Defra, 2020).

This paper investigates what kind of co-design strategies Defra might implement to help it reach beyond the ‘usual suspects’ to engage farmers and land managers that are harder to reach. As stated above, there are many people that are not included in research, surveys, consultations, or other aspects of participation due to an array of practical, personal, or attitudinal barriers, or indeed the fact that the engaging organisation fails to set up adequate processes of two-way knowledge

exchanges which deters people from participating; therefore making them ‘harder to reach’ (Bonevski *et al.*, 2014). The term ‘Hard to Reach’ has been used since the 1950s to reference individuals that were difficult to reach for extension services, particularly in the social and health care sectors. The concept of ‘Hard to Reach’ has since been researched in a variety of different sectors from medicine, social science, social marketing and policy (Brackertz, 2007) with the intention of developing a clearer understanding of who and why people fall into this category and what can be done to better approach and engage them.

Despite the necessity to understand individuals that are less represented or engaged in research, policy and outreach activities, the term ‘Hard to Reach’ and associated literature have received criticisms due to the terminology leading to generalisations of people, treating them as a homogenous group and attaching a stigma to the phrase which can be prejudicial (Whitnell, 2004). Whilst some literature has used the term ‘Hard to Reach’ as a noun often to define a homogenous group, we use the term ‘harder to reach’ (hereafter, HTR) as an adjective to describe individuals that are less engaged with Defra through a wide variety of factors and negative past experiences, that have reduced their incentive to engage. Without developing an understanding of HTR individuals in the context of ELM, Defra risks losing them along the way, including during the design phases and implementation of the scheme. In regard to co-design, this could result in an overrepresentation of the ‘usual suspects’ and a bias towards a specific sector of the industry (Bonevski *et al.*, 2014). Problems stemming from a lack of, or unequal, participation could be environmental, as attempts to do landscape-scale conservation will be fragmented, as well as social and economic, with widespread financial disruption caused to marginal farm businesses concentrated in certain areas (particularly in and around the uplands) and increases in poverty and poor mental health (Phillipson *et al.*, 2020).

In order to engage as many people as possible in the co-design process and reach their target of subsequent sign-ups to the scheme, Defra needs to understand the stakeholder landscape, including those people that are deemed HTR by the government and the extension services (Tsouvalis and Little, 2019). Through a quick scoping review of the literature, semi-structured interviews with 23 farm advisors and farmers, and one workshop with 11 practitioners responsible for delivering current agri-environment schemes in England, we explored the why, who, and how of engaging HTR farmers (other land managers not specifically discussed in empirical work). We explored *why* certain individuals are HTR and have historically been difficult for the government to engage with, *who* HTR farmers might be in the context of ELM (noting that it will not be a homogenous 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 categorisation of HTR communities that could help ELM policy-makers in tailoring engagement strategies.

2. Methods

2.1 Quick scoping review

Literature reviews can be conducted in various ways dependent on the time and resources available and the desired aims of the review (Dicks *et al.*, 2017). One of the aims of this research was to provide recommendations, grounded in the literature, on how to identify and engage HTR communities effectively. Given the two-month timescale for conducting it, we decided to conduct a Quick Scoping Review (Feb-March 2020), which is a ‘condensed version’ of a systematic review (Dicks *et al.*, 2017). Though less resource and time intensive than full systematic reviews, QSRs are still helpful in meeting policy evidence requirements through providing an understanding of the volume of evidence available, answering research questions, and understanding the impact of

potential policy interventions (Collins *et al.*, 2014). This is achieved by searching published data and additional sources from the grey literature or from expert recommendations, creating a map of the evidence to understand the data available, and providing an informed conclusion.

Following on from the research aims and objectives of the project and the scope of a QSR, the following key research questions were defined:

- Why are some farmers and land managers ‘harder to reach’?
- Who are ‘harder to reach’ farmers and land managers?
- How do we engage them?

These questions helped to frame the search string, exclusion and inclusion criteria and thematic analysis of the final literature database using Scopus. The full search terms and inclusion/exclusion criteria can be found in Appendix 1.

The final number of articles analysed was 30. The evidence was read by the researcher who conducted the review and key notes and summaries developed. These supported the qualitative research by identifying themes for further empirical investigation. Papers were then read again by the same researcher and coded, picking out areas that answered the research questions. Clear themes and subthemes emerged, and key quotes were extracted from the data to provide supporting evidence.

2.2 Interviews and workshop

Semi-structured expert interviews and a workshop were undertaken to gather evidence from a range of stakeholders with knowledge and experience of engaging HTR farmers. These interviews focused on farmers, though we note that other types of land manager are also important to include in ELM.

Expert interviews were chosen as an appropriate method to research HTR farmers who are by definition difficult to access (Bogner *et al.*, 2), especially within a relatively short project. Interviewees were identified via three routes: i) contacts of members of the research team, known to them through their professional work in agri-environment policy research and practice and selected for their merits and relevant expertise in this area; ii) identified through desk research and “cold called” by researchers; iii) referred to by another respondent. Interview participants for the expert interviews (n = 23) were drawn from government departments (1), arms-length bodies (5), national farmer welfare charities (8), farmer facilitation groups (2), farmer-run networks (3), agricultural consultancy firms (2), national banks (1), and farmers themselves (1) (although a number of the respondents were also part-time or hobby farmers, or from an agriculture background). 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. Not relying solely on ‘elite interviewees’ (Van Audenhove, 2019) for expert knowledge meant that we were able to corroborate the views and experience of those who have more strategic perspectives and influence (for instance with policy makers) with those who are directly engaged with HTR farmers and 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 four 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 reasons of time. The interview

process was undertaken under the ethical review process of the University of Sheffield, as part of which all respondents were sent a participant information sheet and a consent form, and all their personal details were anonymised. Following Mason (2002), an interview guide was designed by using the same research questions as outlined in 2.1 to generate 19 mini-research questions, out of which 12 themes and 42 example interview questions were drawn. 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 minutes and the in-person interview lasted for 71 minutes. 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 HTR 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 agri-environment schemes in England. This call lasted 55 minutes 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 against the research questions designed in response to the project objectives. Short quotes from the interviews are presented in inverted commas and are anonymised using numeric identifiers.

3. Why some people are ‘harder to reach’

3.1 The ‘hard to reach’ concept in the literature

‘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). HTR 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’, ‘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. There are as many complexities as criticisms with the terminology and definition of HTR. The notion typically refers to groups of people that have been socially disadvantaged and disenfranchised; ‘homeless and transient, chronically mentally ill, high school drop-outs’ (Lambert, 1990, 1). Some define those as HTR who are ‘not in contact’ and lack adequate amounts of information on given subjects, whereas others include people that are ‘hard to action’ i.e. those who have received the required information on a subject but chose not to respond (Kinsella, 2018). According to Hall and Pretty (2008), the HTR may actively self-exclude themselves for fear that they have breached rules and regulations they do not fully understand.

The terminology can lead to generalisations of people, treating them as a homogenous group, attaching a stigma to the phrase HTR, which can be prejudicial (Whitnell, 2004). For example, the oversimplified interpretation of Rogers’ (2003 [original 1962]) ‘diffusion of innovation’ model has been used to characterise some farmers (and other groups) as ‘innovative’, ‘early adopters’ (synonymous with ‘good’ farmers) and others as ‘less innovative’, ‘laggards’ (‘bad’ farmers). Much research has problematised this construction, finding that it is often (mis)used to blame farmers for inaction rather than pointing the finger at the wider policy and governance landscape

instead (see Rose *et al.*, 2018). Despite criticisms, the model is still used by researchers to examine the dispersal of new ideas in a society and to determine the adoption categories of individuals, depending on how long it takes for them to embrace something new (Khanal *et al.*, 2019).

Despite the unhelpful ways in which the term HTR is often used - not least because people may not actually be HTR *per se*, but simply difficult to reach by a certain group (e.g. government), the omission of ‘less heard’ individuals leads to a bias and over-representation of the ‘usual suspects’ and underrepresentation of those HTR (Bonevski *et al.*, 2014). This can negatively impact on HTR individuals who lack access to services they need and consequently may become ‘left behind’ by society. It can also have wider policy implications, as bias in the data can lead to an inaccurate representation of a policy area and a false perception of a threat or problem (Bonevski *et al.*, 2014).

3.2 Why can farmers be ‘harder to reach’?

Several different barriers to engaging HTR farmers were identified in our research. We identify each in turn, though note that they are not mutually exclusive and many overlap. We also note that some barriers prevent engagement in the co-design process, others prevent participation in the final scheme, whilst many prevent engagement at both stages of policy development and implementation.

3.2.1 Lack of time

In interviews and workshops, lack of time was frequently discussed. An interviewee working for a national rural consultancy firm observed:

‘I think the risk on the engagement side of things is where 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.

You're spending a lot of your time firefighting.' (I2)

This view was echoed by a respondent working for a regional rural support network who said that when confronted with ELM engagement exercises or the scheme itself, some farmers would think 'I'm so busy, I haven't got time to think about it' (I1).

In the literature review lack of time was cited as a common reason for some farmers to engage rarely with (or avoid) government and extension services (Kinsella, 2018). Studies found that farmers responded to calls to participation with 'too busy' (Jansen *et al.*, 2010), or initially agreed to be involved in research but later stopped due to 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 HTR (Kinsella, 2018; Dessart *et al.*, 2019; Dunne *et al.*, 2019) and less likely to have time to adequately participate in research and development projects without jeopardising their other sources of income (Richardson-Nqwenya *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 do not wish to prioritise spare time to engage with the co-design of ELM over time spent on the farm or with their family (Richardson-Nqwenya *et al.*, 2018).

3.2.2 Negative previous experiences and complex bureaucracy

Our qualitative fieldwork also showed that the negative experience of previous scheme bureaucracy contributed to limited engagement. Many forms and the ELM consultation documents

must be filled in online, and as a member of staff at a regional agricultural support service noted, many farmers are ‘not really computer literate’ (I3). One Senior Executive, who advises farmers, spoke of their own experience of engaging farmers:

‘...a few of my landowners didn’t want to be contacted by email because they don’t have email. And so I think that there’s sometimes an overreliance on doing it online.’ (I16)

The off-putting ‘red-tape’ and additional workload associated with engaging in government schemes 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). This difficulty can be the cause of considerable stress, as a respondent who works for another national farming charity reported:

‘... for many of them the thought of a whole new scheme, getting to grips with it, paperwork whatever, is just terrifying, absolutely terrifying, they wouldn’t know where to start.’ (I7)

In the literature, complex policy administration and high levels of bureaucracy were commonly stated as a barrier to engagement. Farmers see agri-environment schemes, or similar paperwork requirements, as time-wasting and frustrating (Hall, 2008; Lyon, 2019). The complex nature of these 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, but 94% of the advisor’s time was spent on giving scheme or regulatory advice. The complex bureaucracy associated with many government schemes can negatively impact on wider and longer-term policy goals such as rural development, investment, and sustainability goals. Though Defra has indicated that ELM will reduce “red tape”

and give the farmer increased flexibility (Defra, 2020), the negative experience some farmers have of such schemes and the difficulties of participation in the past will have a long-lasting effect (Hall, 2008).

The literature review also suggested that a lack of policy consistency or land manager ‘buy-in’ to policy was a major reason for lack of continued 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). This is especially relevant in agricultural policy where, in relation to the CAP, continuous incremental changes have led to increased levels of uncertainty and policy fatigue (Hall, 2008). Farmers have found that previous CAP policies contained contradictions regarding productivity and sustainability goals (Hall, 2008), which made it difficult for farmers to engage.

3.2.3 Digital divide

Both the qualitative fieldwork and literature review noted disparities in technology provision to be a key reason why some farmers were HTR. 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), meaning they had to go to use free Wi-Fi in places like McDonald’s to do some of their online correspondence with ‘the likes of HMRC’ (I18). The lack of connectivity meant that individuals could not respond to online government consultations nor easily take part in schemes for which the paperwork was to be completed online. One respondent, who works for a government organisation, said that farmers would like to engage more, but they ‘can’t engage with the online application for schemes’ (I12).

The digital divide and its implications for limited engagement for some farmers was also evidenced

by the literature, including by policy-makers and extension agents in the Global South. In the context of Filipino agriculture, Panganiban (2018, 52) noted that for ‘those who have access or the information “haves”, technology offers opportunities, inclusion and wealth but for those who cannot or the “have-nots”, it presents a risk of greater isolation and increased poverty’. Though the Global South is at a greater disadvantage in terms of integrated technology systems than the UK, there is still a persistent ‘digital divide’ present in the Global North, especially for farmers and land managers who are in remote areas and lack consistent broadband connections (Cameron *et al.*, 2016; Rose *et al.*, 2016; Wright *et al.*, 2018). Those that are at a technological disadvantage are more likely to become HTR, specifically those with limited internet connectivity, such as in the North East of England where there is the highest population of internet non-users and 4G no spots (ONS, 2019). The digital divide between smaller farms and larger, corporate farms may result in the larger farms becoming more productive, profitable, economically stronger and gaining more political power compared to the smaller farms, which without consideration, will be left behind (Wegran, 2018). This would exacerbate power inequalities and the ability of HTR people to influence policy development.

3.2.4 Low social capital

Echoing findings from previous research, the problem of isolation and low social capital amongst many farmers was 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, help in 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, will have the opportunity to collaborate with others, be exposed to new innovations and be supported in their implementation.

Importantly for ELM, these farmers were found to be more sustainable in their land management (Hall, 2008). However, in cases where individuals have low social capital, they can be isolated from their peers and government and therefore it cannot be relied on that others will influence their behaviour. These farmers can be characterised by unsustainable farming practices with sustainability indicators declining over time (Hall, 2008).

Social isolation is a clear qualifier of the HTR, as a number of respondents reported, including this employee from a farming support charity:

‘Well, they’re the most vulnerable probably because they’re the ones who clam up, don’t go out, don’t meet, get socially isolated.’ (I20)

Such a view was echoed by practitioners responsible for delivering current agri-environment schemes in the workshop who observed that ‘some people are... are very shy, you know’, and by a Senior Executive in the farming industry (I16), who described the HTR 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 in some places could be getting worse:

‘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 mental health issues among HTR farmers who have gone to ground, and the relationship of social disconnectedness to anxiety, stress, and depression.

Many of these themes were supported by the literature. Additionally, low self-esteem was identified in the literature as causing some farmers not wanting to participate in schemes for fear of being exposed as a 'bad' farmer (Kinsella, 2018). Those in remote locations also 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). This will make it more likely that farmers in remote locations have fewer networks and lower social capital which makes interaction with others and involvement in participatory activities more difficult (Hall, 2008). Hall (2008) found that within a longitudinal study observing a sample of 31 farmers within the Norfolk Arable Land Management Initiative (NALMI), approximately 25% of farmers could be categorised as "Farmers Under Pressure"; working excessive hours and having a wide range of pressures from all sides of the business. This group lacked social sustainability and were under high levels of stress, lacked hope, had periods of depression, and felt resentful towards farming and their position within the industry (Hall, 2008). As well as the 'Farmers Under Pressure', 'Small Family Farmers' were also recognised as HTR within farming (Hall, 2008). These groups did not engage a great deal with the external world and very infrequently with government agencies, whom they lacked trust in and avoided interaction with where possible (Hall, 2008). Both the Small Family Farmers and the Farmers Under Pressure fall under the definition of HTR which within the NALMI study represented 58% of farmers (Hall, 2008)

Farmers in remote locations are thus less likely to visibly see or have access to neighbours that have participated in co-design activities or implemented innovations and agri-environment schemes on their farm (Fischer *et al.*, 1996). Being able to view neighbours in a close proximity,

who have similar farming conditions, can give more confidence in applying new management techniques (Fischer *et al.*, 1996). If there are considerable geographical distances between themselves and the nearest adopter it reduces the levels of certainty about whether management schemes would work for them (Fischer *et al.*, 1996). Furthermore, those with low social capital will also find it more difficult to collaborate with neighbouring farmers, which will exclude them from delivering higher tier ELM outcomes that rely on collaboration and local planning (Defra, 2020).

3.2.5 Trust

Trust can be defined as a person's judgements, choices, and actions about the future behaviour of other people or organisations when there is imperfect information about the actual outcomes. The relationship between farmers and government organisations is a long and ongoing one - often dating back to the 1950s and 1960s, but retaining vivid memories of positive, trusting relationships with government agency staff from those times (Hall and Pretty, 2008; Rust *et al.*, 2020b). The relationship is founded on the experience of engagement through past schemes and organisations. A respondent who works as a Senior Executive advising farmers made a striking suggestion that many would be fearful at the prospect of engaging with an organisation like Defra:

‘I would actually suggest that 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 a ‘natural suspicion’ (I1) of Defra, Natural England (government agency) or the Rural Payment Agency (responsible for Basic Payment Scheme), has been caused by a number of events, including the fear about receiving penalties for bad paperwork or failing inspections

through little fault of the farmer. One respondent, who works for a regional farming support service, talked of a perception of government bodies as inspectors and therefore farmers seeing any encounter with them as carrying considerable risk.

As one interview working for an agricultural support service noted:

‘For instance 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 who works for a different regional rural support network:

‘[they think] if I put my name on that piece of paper, they’ll know I’m here, you know. [...] I think there’s certainly been a reluctance around, 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)

The literature also noted that the trustworthiness of a partner is an important prerequisite to making future decisions that are based on information or involvement with that partner. This is particularly important in situations of unequal power (Morrison, *et al.*, 2017) where sanctions on the more powerful agent are unavailable. 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 agri-environment schemes is well documented with farmers trusting some advisors more than others (e.g. Sutherland *et al.*, 2013; Mills *et al.*, 2016; Vrain and Lovett, 2019). The 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 collaboration (Jansen *et al.*, 2010; Rose *et al.*, 2018; van Dijk *et al.*, 2015) and hence an individuals' willingness to work collectively at a landscape scale (Prager, 2019) to repair fragmented ecosystems and create a nature recovery network (HMG, 2018).

3.2.6 Low income/different priorities

Linked to some aspects of social isolation appear to be a group living on very low income or as subsistence farmers, which creates both mental and practical barriers to engaging with peers, networks, organisations and services. We have seen this already suggested above. A Senior Executive advising farmers on current schemes argued that:

‘Some of the farms that we are talking about, on those survivors, live such modest, frugal lives, that they will find ways to survive. It isn't about putting in a new kitchen, or changing the Land Rover, or going skiing, or buying clothes. It is that living a very frugal existence.’ (I16)

A practitioner involved in the workshop talked of similar issues and how they impact on their organisation's engagement efforts with low income farms:

‘...there are quite a proportion of farmers who do not make a profit, and they will be often hard to reach, and thereby hangs another challenge for us, because they possibly get money from elsewhere or are slowly going under.’

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 US, with participants citing the uncertainty of expected revenue flow as a barrier

to adoption of the scheme (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’, i.e. have a disproportionate weight on the immediate costs and benefits than those of the future (Dessart *et al.*, 2019). This present bias can be particularly persuasive in the case of sustainable farming practices and schemes such as ELM that may entail immediate costs in the form of new machinery or reduced yield, but with benefits that don’t occur until later in the future, whether that be payments for public goods or ecosystem benefits such as soil retention (Dessart *et al.*, 2019). It is likely that without addressing the issues that farmers face in the short term, even those that are engaged with Defra may not seek to play an active part in ELM co-design or wish to change the narrative to something more imminent to them.

The literature indicated that some farmers may have different priorities in the management of their farm that do not match with sustainable objectives of agri-environment schemes, such as ELM, which can restrict engagement. 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 which would be of benefit 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 react to certain elements of ELM.

3.2.7 Age

In the qualitative fieldwork, a recurrent theme that emerged in connection to non-engagement was age. As one workshop participant observed:

‘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.’

A member of staff involved with a regional upland farmer network talked about similar demographic factors in HTR subsistence farmers:

‘... in parts of Devon, there are big swathes of areas where they are very small, very traditional, elderly, family farms, they have very little borrowing, no borrowing on the land probably, they just own it, and they’re very cautious, and that’s the way they operate, and there is still quite a lot of that.’ (I6)

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

‘Whereas the older you are the less inclined 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 uptake of ELM, especially as the median age of a UK farmer in 2016 was 60¹.

3.2.8 Farm type

Engagement with agri-environment schemes 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:

¹ Defra (2018) Agriculture in the UK, page 8.

‘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, 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 previous section on income barriers to participation, the ‘present bias’ will play a part in the risk perception of ELM. Farmers’ decisions may be more greatly 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 pointed to other farming enterprises as being HTR 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.’

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.

Financially locating HTR farmers and land managers also pointed us to a perhaps under-considered segment of wealthy and/or successful farmers. 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)

3.2.9 Disabilities

One comment made by a Senior Executive advising farmers that needs further research is the potential impact of learning disabilities on farmers’ ability to engage with government consultations and in agri-environment schemes. They said that ‘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.

4. Who are ‘harder to reach’ in the context of ELM?

Various attempts have been made to segment farmers into specific behavioural groups to describe their characteristics (Wilson, 2014). This includes work by Defra to segment farmers in the UK into various categories (Pike, 2008). We used the insights gained from the literature review and the qualitative fieldwork on why farmers can be HTR to characterize a number of different types of HTR farmers and their emotions/views that could impact on their participation in ELM co-design and delivery. We present these ten categories with a word of caution. They 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 and Wilson 2006). We note that a farmer could hold several of the following views towards ELM.

The ten views towards participation in ELM that may make an individual HTR are (see Figure 1):

1. *The Proud and Independent (insulted by ELM)* - ‘Those farmers who believe they are stewards of the countryside will be affronted by this ELM because it is insulting their rural intelligence, their stewardship, their environmental intelligence. And so they are just going to put two fingers up to this ELM consultation.’ (I14)
2. *The Busy (no time to find out about ELM)* - ‘a lot of [the advice] tends to be quite complex, lots of different instructions in a massive manual, so a farmer just doesn’t have the time, or energy to process, and...digest and then make a decision’ (I12). These tend to be engaged farmers, who will not have time to participate in ELM if the bureaucracy is too heavy.
3. *The Tired, Overwhelmed and Reactive (no time to think about ELM)* - ‘people who work hard...tend not to have that voice because they’re far too busy’ (I17). These farmers are distinguished from ‘the busy’ because they tend to have lower self-efficacy, are really tired, and have little opportunity to even think about engaging in the ELM process.
4. *The BPS Non-Claimant (doesn’t know about 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, because those guys, generally speaking, have not been used to taking any state funding.’ (Workshop)
5. *The Hobby Farmer (doesn’t need ELM)* - ‘We’re very small. Do I want to join ELMS? Well, I have to say, probably not - why should I want to? I don’t need the money, I don’t particularly need the advice, I think I know what I’m doing.’ (I6)

6. *The Resentful and Suspicious (don't trust Defra)* – a history of “‘I never got my payments through. It's all such hard work, it's all bureaucratic, I'm not going to get involved.’” (I1)
7. *The Active Avoider (don't trust anyone)* - ‘If you are going to paint the simplest picture, I think some of the clichéd, gruff farmer, "Get off my land", would apply, and...we need to really think about mental health, mental wellbeing, dyslexia, limited social skills.’ (I16)
8. *The Isolated, and Blissfully Unaware (have their head in the sand)* - ‘there are still some who are just...head down, bum up, as they say...getting on with the day job[...] That just do not realise that there is anything that's going to change.’ (I1)
9. *The Poor Subsistence Farmer (struggling to carry on)* - ‘prices for things haven't gone up in 30 years and costs have gone up and rents gone up...I think what we're tending to see is some of the smaller, older farmers almost become subsistence farmers.’ (I4)
10. *The Farmer at Breaking Point (can't carry on)* - ‘because farming is as much a way of life as a job, most farmers work extremely long hours. They don't actually have any other interests, and we are still right at the top of the suicide league for professions.’ (I3)

Of the 12 interviewees who tried to estimate the percentage of farmers in the HTR category for ELM, estimates ran between 5 and 70%², indicating that there is substantial uncertainty over the number of land holders that this may represent.

² Respondents estimated the following: <5%; 5%; 10-12%; 20%; 33.3%; 40%; 50%; 60%; 60-70%; 70%.

Figure 1: Emotions/views towards being involved in the new ELM scheme

5. How can ‘harder to reach’ communities be better engaged in ELM?

Based on the literature review and qualitative fieldwork, we identified recommendations for improving engagement with HTR farmers in the context of ELM, noting that many of these could also relate to inclusion of other land managers. Figure 2 places these solutions in the context of each barrier (excluding ‘age’). We discuss these in turn below with the specific aim of making tangible policy recommendations. Many of them can inform policy engagement exercises being carried out elsewhere. In Figure 3, we identify a range of positive outcomes (green) from the implementation of these recommendations to move the situation on from current HTR scenarios (orange), but also a series of negative outcomes if they are not followed (grey).

5.1 Make engagement easy, worthwhile, and listen to farmers

The HTR farmers that we identified in the context of ELM need to see the benefits of being involved in its co-design and implementation. This includes farmers who are struggling or unaware of the potential benefits and those who are in enterprises that do not rely on environmental subsidies. Too often in previous engagement exercises, government has failed to listen to, and act on, inputs from farmers (Hall and Pretty, 2008). This has contributed to a culture of mistrust and suspicion, limiting the appetite for future engagement. 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). There is certainly a need to make farmers and other land managers feel like ELM co-design is an open process where pre-conceived assumptions can be challenged. Defra should reiterate how farmer engagement exercises have influenced policy design, and why particular views were not taken into account in the final version.

Figure 2: Barriers and solutions to better engagement of HTR farmers in ELM

BARRIERS

A N D

SOLUTIONS

TO ENGAGEMENT WITH ELM

Lack of time to engage	Run engagement exercises at times that suit farmers
Lack of access to technology	Allow paper responses to ELM + invest in connectivity and IT skills
Complex bureaucracy, inaccessible forms for those with disabilities (e.g. dyslexia)	Provide simple, free advice about ELM
	Make sure forms do not discriminate against disabilities
Lack of trust	Pay farmers promptly
Low social capital	Use trusted, skilled intermediaries to work with farmers
Not clear what the benefits of being involved are	Make engagement in ELM worthwhile and tell farmers that you've listened
Farm type typically not involved in previous schemes	Help farmers with transition from BPS

Figure 3: Positive outcomes (green) of better engagement with different types of HTR farmer (orange), and negative outcomes from poor engagement (grey)

There needs to be a benefit for farmers and land managers to participate. Farmers ‘have got to be able to make a profit’ (I14) from being involved in ELM, including those sectors that have not been involved with agri-environment schemes in the past (e.g. horticulture, pigs, poultry). Profit

does not necessarily have to be financial. For those attuned to prestige and genuine pride in their farm and landscape, status enhancement may come through external validation that reinforces the leadership and excellent work they have carried out. For hobby farmers entering farming, it may be a sense of belonging to the farming community that is the greatest incentive. For the tired, overwhelmed and reactive, personal support alongside business incentives are critically important. To busy farmers short of time, ELM must be effective and administered well to avoid wasting time. Crucially, farmers and land managers need to perceive that ELM will be relevant and useful for them otherwise they will not participate in ELM design or implementation.

5.2 Offer offline engagement activities, but also improve connectivity and ICT skills

Both the literature and interviews made clear that the digital divide prevented many farmers from engaging in online consultation exercises, such as Health and Harmony (Defra, 2018), and from participating in agri-environment schemes like ELM that tend to rely on online applications. To deal with this problem, three actions are needed.

Firstly, improving rural connectivity. As was stressed by interview respondents, the ‘big mistake that a lot of organisations make is assuming that everybody has internet access’ (I8). In addition, it was noted, for example by a farming support network, that ‘over a third of [their] members don’t have a computer’. For ELM to be effective, if relying partly on online delivery, rapid investment is needed in broadband and mobile phone infrastructure and support given to those who cannot afford ICT equipment.

Secondly, improving connectivity is insufficient to foster internet access without investing in building digital skills. The same farmer support network representative mentioned above noted that ‘two thirds’ of their members ‘haven’t got the skills or the confidence to do stuff online’ (I8)

even if they technically had access to do so. Investment is needed here to provide the support needed for farmers to adapt to digitalised farming systems.

Thirdly, and most importantly, even if progress is made on the first two points, Defra should make more non-digital options available to those wanting to respond to ELM design outreach exercises and to sign up to the scheme once available. The ‘digital by default’ agenda of the government is problematic for many farmers. The practitioners supporting farmers in current agri-environment schemes noted in the workshop that many preferred to have ‘paper copies’ (I18) with many of their clients likely to be unaware with the ‘digital by default’ agenda.

5.3 Reduce bureaucracy and create accessible, inclusive, and effective administration

Bureaucracy has a key role to play in both generating and eroding trust. Engaging with bureaucratic processes, whether a consultation, co-design process or applying for an agri-environment scheme, requires the farmer’s positive assessment of risks, plus likely costs and benefits. It also requires certain skills and a degree of stamina not to give up through a challenging process where the outcome can be unclear. This process can be made more challenging for those farmers who are not used to filling in forms or for those who, like many people in the general population, have disabilities such as dyslexia or dyspraxia.

In terms of encouraging farmers and land managers to engage in the design of ELM, consultation exercises must be accessible to all. A rural advisor in interview (I14) recalled a conversation with a farmer:

‘A farmer said to me, eight years ago, "Hey xxx, I hear that the xxx farmers' market is going to go. There are consultations going." I said, "Are you going to them?" He said,

"No, they are at the wrong time of day. I am busy lambing." "Oh, for Christ's sake."

That wasn't his fault, that was their fault. Consultations have to fit.'

Defra have been running outreach workshops with groups of farmers and land managers, which is good practice to ensure that views can be heard from those who are not able to respond to online consultations. These should be delivered in accessible places, at convenient times for farmers in the day and the farming calendar, and participant-led where possible.

In terms of participating in the scheme itself, it is important that ELM does not discriminate against people who are less able to fill in complex forms. Though we note that farmers have vast experiential knowledge, several respondents who worked with farmers on current schemes noted that 'literacy rates are quite poor' (I21), and this points to the fact that form-filling is not necessarily top of the list of farmer priorities. Defra should, therefore, ensure that they take specialist advice on creating accessible guides to the new scheme so that forms and rules are not difficult to follow. It should also consider providing funded support for those unable to do administration. This will have the effect of reducing the fear in people applying, which can be further reduced by ensuring that penalties are not excessive and do not unfairly sanction applicants for administrative mistakes. As many interviewees noted, there is currently a fear in agri-environment schemes that 'you might get something wrong and end up in trouble for doing it' (I3).

5.4 Enhance trust through skilled intermediaries

Interview respondents 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 such as the Rural Payments Agency who

administer current subsidy payments (described as ‘faceless’ by one interviewee [I4]). As noted in the interviews, it is important to ‘acknowledge that farmers may have a longer institutional memory of agri-environment schemes than many Defra staff’ (I6).

In order to gain farmer and land manager input to ELM design and high participation once the scheme is launched, engagement is likely to be most effective if done through skilled and trusted intermediaries rather than Defra. As evidenced by the literature, collaborating with different groups, organisations, and actors increases the likelihood that a farmer receives information from a source they trust and share a relationship with (Nwankowo *et al.*, 2009; Ehlers and Graydon, 2011). These collaborators know the most suitable way to communicate to their audience (Nwankowo *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 advice could be useful if better training was received about ELM. Other organisations, such as environmental NGOs, may also be useful intermediaries, although their ownership of projects and their ‘loaded’ views on certain issues (e.g. shooting) may limit the extent to which they are trusted among different groups of farmers. Interviewees and fieldwork respondents identified the need to be careful about employing intermediaries who were looking to ‘make a fast buck’ out of farmers, including other land managers who have vested interests and might want to rent or buy up land from farmers if their businesses fail. The importance of peer groups, such as farmer clusters and similar ventures, were also stressed.

Ultimately, farm advisers will be needed for the effective delivery of ELM, indeed they are of ‘critical importance’ (I6), but one can also see them as an important conduit for feeding farm-gate views into the design of the scheme itself. Several interviewees made the point that ‘access to advice and guidance is really crucial for that engagement with [ELM]’ because agri-environment schemes ‘tend to be quite complex, [with] lots of different instructions in a massive manual, [so] that a farmer just doesn’t have the time, or energy to process, and digest and then make a decision’ (I7). These advisers need strong, interpersonal skills, be trained and experienced in agri-environment issues, be preferably paid for by Defra, be easily accessible to farmers and land managers, and be encouraged to stay in post for a long time to develop a relationship with them. Many of these aspects were perceived to be lacking, with government or extension staff being described as ‘lacking interpersonal skills’ or ‘not caring about people’ (I16). Advisers helping to deliver ELM need to have sufficient ecological and social/community engagement skills and preferably stay in post for a reasonable length of time to allow trusted relationships to develop (I14). Most importantly, consideration of the payment mechanism for advisers needs 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). Advice should ‘not just be available to those who are savvy or to those who can afford to pay environmental consultants to come and develop a great plan, and then they are able to progress that’ as this will leave behind those that just don’t have the resources to pull together environmental plans’ (I21).

5.5 Pay farmers promptly

Well managed schemes engender engagement whereas badly-managed schemes erode trust with little gain. Farmers feel contempt for government agencies who cannot administer their own business. The risks of late-payment, or of reclaim of historic agri-environment scheme payments

was repeatedly expressed by respondents and was cited as a prime reason that farmers would not engage in the future. ELM payments need to be delivered correctly and in a timely manner.

5.6 Ensure transitions to the new scheme are well-managed

Our interviewees who advised farmers highlighted that many would not be ready for the transition away from the Basic Payment Scheme towards ELM. Respondents reported concerns about HTR farmers lacking essential resources (e.g. informed contacts, social support, financial capital) required to undertake a successful transition to a new system of farm payments. A member of staff at a charity which support farmers stated:

‘...with ELM coming in, there’s not enough information at the moment, so how can people really prepare? It’s not a simple overnight change. It’s a few years almost, to put these things in place. So that’s, I think, for the one to one support it’s going to have to be there’ (I9).

Another farmer support group staff member agreed:

‘... our farmers will often say to me, you know, well, I’m just getting my head round this last bloody system, what are we changing it for?.. it’s like somebody coming to you and saying, you know, tomorrow morning you’ll need to be able to speak Greek and if you can’t...we’re going to take this away from you.’ [I8]

At the moment, Defra are undertaking a series of ‘tests and trials’ to gather information to inform a pilot of the scheme from 2021, which in turn will lead to a gradual roll-out of ELM from 2024 (Defra, 2020). Our findings suggest that not all farmers will find it easy to transition from the Basic Payment Scheme towards ELM, particularly if good, funded advisory support is not easily

accessible. It must be noted that farmers have experienced considerable teething problems early-on in previous schemes, so initial engagement in ELM may suffer as farmers ‘wait-and-see’ whether it is working smoothly. Thus, Defra needs to be mindful to help some individuals more than others and review timescales regularly.

6. Concluding remarks

Our research has highlighted the need for Defra to reach out to those farmers considered harder to reach during the ELM co-design and implementation process. Without their contribution to and inclusion in ELM policymaking, the policy goals and objectives are likely to falter. We have shown that the HTR are not a homogenous group, and that being HTR can be as much the result of failing trust and relationships between government and farmers as it can be of practical, attitudinal, and personal barriers to engagement. Many of these barriers, as our research has shown, can be addressed. To assist policy makers, we have devised a characterisation of HTR farmers and their possible reasons for not engaging with ELM. Further work on engagement of other types of land manager would be valuable, though many of the solutions above are likely to be applicable. Our characterisation of farmers provides the basis for recommendations of proactive steps that can be taken to make the ELM co-design process more inclusive. We hope that our study will contribute to positive change in how HTR farmers and land managers are perceived and engaged by policy makers, and that it will contribute to making ELM a success.

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Appendix 1

Multiple search databases were not used given time constraints, and thus one major database, Scopus, was the site chosen for data extraction. This has been used on its own to conduct other published literature reviews (e.g. Young *et al.*, 2018). In addition to the sources provided by Scopus, expert recommendations were given by the project team and other industry experts. These were also sorted and included subject to meeting inclusion criteria.

The search string was developed using two key themes as starting points; ‘hard to reach’ terminology and synonyms, and ‘Farmer/Land manager’ related terminology and synonyms. The keywords developed from each theme were separated by the Boolean operator ‘OR’ and the two separate search strings joined by the operator ‘AND’. The search string (Table 1) also contained the limitation of studies written in English. As this was a quick scoping review rather than a systematic review, a variety of resources were contained in the database in order to assess the scope of the current literature, giving a broad overview on the type of information available on HTR farmers and land managers. The only limitation made was the exclusion of whole books, based on the practicalities and time constraints of the project. This search string generated 417 results on 24th February 2020 and was marked to a saved list which was then used to work from and carry out the process of elimination. Files that were removed from the saved list were marked at each stage so a record of what was included but also what was excluded could be kept.

Table 1. Search String Scopus

TITLE-ABS-KEY ("Hard to reach" OR "Hard-to-reach" OR "Difficult to reach" OR "Difficult-to-reach" OR "Hard to access" OR "Difficult-to-access" OR "Hard to contact" OR "Hard-to-contact" OR "Hard to action" OR "Hard-to-action" OR "Not in contact" OR "Left Behind" OR "Laggard")
 AND TITLE-ABS-KEY ("Farm" OR "Farmer" OR "Farming" OR "Agriculture" OR "Landowners" OR "Land Manager")
 AND (LIMIT-TO (LANGUAGE , "English"))

The inclusion and exclusion criteria is highlighted in Table 2. A date restriction or resource type criteria was not included in this study to allow for the scoping of the literature available. A discussion was had with the project team about the efficacy of study papers from the Global South, and whether they provided any relevant information that related to HTR farmers and land managers in the UK and to developed agriculture systems. It was decided to retain these studies as they provided novel and useful insights relevant to this research related to technology and the ‘Digital Divide’. The inclusion and exclusion criteria below were developed and added to throughout the course of the review process as the understanding of the literature base expanded.

Table 2. Inclusion and Exclusion criteria for evidence base

Stage	Inclusion	Exclusion
Original Search Sources	Search String	
	English	Non-English
	Book Chapters, Articles, Reviews	Books
	All Dates	

<p>Phase 1</p> <p>Exclusions on</p> <p>Title,</p> <p>Keywords,</p> <p>Abstract</p>	<p>Farming/Agriculture/Land manager</p> <p>“Hard to Reach” individuals</p>	<p>Focus on medicine, migrants, other industries</p> <p>“Hard to Reach” terminology in the wrong context (relation to physical)</p>
<p>Phase 2</p> <p>Exclusions on</p> <p>Title,</p> <p>Keywords,</p> <p>Abstract</p>	<p>Policy Development</p> <p>Engagement, Co-production, Outreach</p> <p>Focus on Social Science</p>	<p>Unrelated to policy or forms of agricultural management</p> <p>Doesn’t discuss aspects of engagement within the study population</p> <p>Focus on physical or Natural Science</p>
<p>Phase 3</p> <p>Exclusions based on Whole Document</p>	<p>‘Hard to Reach’ defines a sub-group of people within farming</p> <p>Context can relate to reaching and engaging with farmers and land managers in UK</p> <p>Full final text available</p>	<p>‘Left Behind’ ‘Laggard’ used to refer to a whole industry, region or in the wrong context</p> <p>Context does not allow for fair comparisons to be drawn.</p> <p>No access to full text (7)</p>