RENEW

Organisational activity with land managers in relation to biodiversity renewal in four case study areas

A scoping study

May 2024

Rebecca Wheeler, Caroline Nye, Charlie Masquelier & Matt Lobley

University of Exeter

National Trust

UKRI Natural Environment Research Council

To cite this report:

For further information, please contact:
Dr Rebecca Wheeler, Centre for Rural Policy Research, University of Exeter, Lazenby House, Prince of Wales Road, EX4 4PJ. Tel: 01392 723170, Email: r.wheeler3@exeter.ac.uk

Contents

1.0 Introduction

This scoping study forms part of a wider examination of land manager engagement with biodiversity renewal, contributing to the Theme 3 objectives of RENEW. The purpose of this study was to identify how organisations are currently engaging with land managers in relation to biodiversity renewal across the four case study areas identified by the wider team, through the identification of existing (or recent) biodiversity renewal initiatives and biodiversity renewal-related networks of farmers in those areas. It also aimed to investigate stakeholder perceptions around levels of engagement, and the potential impacts upon land managers of the agricultural transition, as well as to monitor initial responses of organisational stakeholders to the ENABLR (Engagement in Nature and Biodiversity Land Renewal) decision-support tool currently being developed within Theme 3. These findings allow the research team to 'map' key areas of activity (and non-activity) in the four case study areas, while at the same time providing an extensive knowledge base around which to develop future research methods (such as interviews) and be able to interact with participants from an informed position. Findings may also assist and influence the development of the decision-support tool.

2.0 Methods

A mixed methods approach was identified as being most appropriate for this phase of the project. Firstly, a desk-based online scoping search was conducted to identify existing or recent biodiversity initiatives which involved engagement with multiple land managers in each area (i.e. excluding independent activities such as uptake of AES schemes). These were compiled in an Excel spreadsheet, which was used to inform the next phase of the research. This was not an exhaustive exercise and we are aware that some smaller projects may not have been captured, but it did provide us with a broad overview of the extent of collaborative or partnership activity between farmers and key organisations.

Secondly, semi-structured interviews were employed in order to capture more detail regarding some of the initiatives and networks, as well as the attitudes, perspectives and understandings of organisational stakeholders in relation to land managers and biodiversity renewal activity. All participants were interviewed remotely. Respondents were recruited purposively due to the nature of the study relying on the four case study regions, and were drawn from existing RENEW partnership organisations as well as those which were identified during the desk-based scoping exercise. Selection for interviewees was dependent upon their falling into the below category:

> *Stakeholder organisation – must be engaged in, or have recently engaged in, an initiative aimed at biodiversity renewal which includes the engagement of land managers.*

Initial contact with all respondents was made via email or telephone, with several undergoing a briefing on the RENEW project prior to interview. Interviews were audio-recorded and transcribed, according to whether participant consent had been given. This research was reviewed and approved by the Faculty of Humanities, Arts and Social Sciences ethics committee at the University of Exeter.

A total of 29 individuals were interviewed across 26 separate interviews (two interviews involved two participants from the same organisation and one involved three participants) between March and

July 2023. Participants represented 13 different organisations, with local or regional representatives from national organisations being selected for interview in order to access the most relevant local knowledge for each case study area. Six interviews were conducted in relation to Devon and Cornwall; seven (with a total of ten individuals) in relation to Lincolnshire; four in relation to the Peak District; five in relation to the Scottish Highlands; three in relation to the Dundee area; and one in relation to Scotland in general. Types of organisations included: three landowners; two environmental NGOs; three public bodies; two partnership initiatives; a utility company; a protected landscape organisation and a research institution.

3.0 Findings

3.1 Existing nature renewal activity

3.1.1 Region-specific projects and activities

Interviewees from all case study areas talked about a wide range of projects and activities engaging land managers on some aspect of environmental land management, which were incorporated into the desk-based scoping work described above. Farmer clusters are of particular interest to RENEW theme 3 due to their emphasis on farmer collaboration and engagement at a landscape scale. Interestingly, successful projects in the 2023 round of the Countryside Stewardship Facilitation Fund (CSFF) are particularly concentrated in the south and southwest of England, with six groups based in Devon, two in Cornwall and two in the Peak District but none in Lincolnshire (Fig.1). Successful projects in the previous round (2015-2023) were more evenly distributed throughout the country, although the east and northeast of the country still appear to have been under-represented (Fig.2).
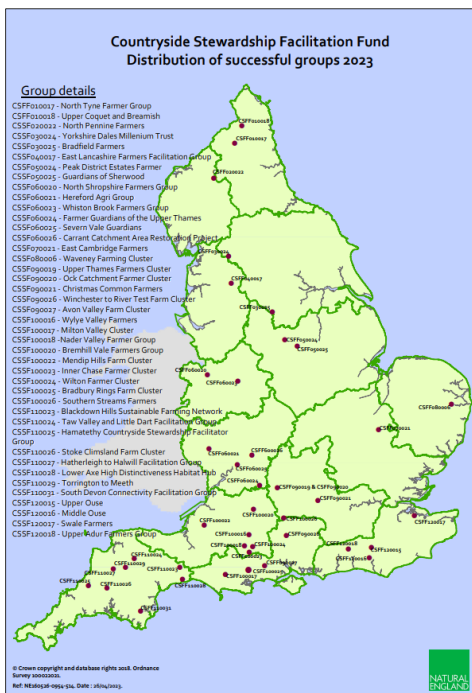

Fig 1. CSFF successful groups, 2023

Fig 2. CSFF successful groups 2015-2023

4

Within Devon and Cornwall, particularly active organisations discussed by participants include Devon Wildlife Trust (DWT), Cornwall Wildlife Trust (CWT), the Farming and Wildlife Advisory Group (FWAG), Westcountry Rivers Trust (WRT) and RSPB.

Larger partnership initiatives exist in all case study areas, including Local Nature Partnerships (LNPs) and Catchment Based Approach (CaBA) partnerships (aimed at water quality). In the Peak District, the Moors for the Future Partnership, which aims to restore peatland habitat, is particularly well established. In Scotland, Highlands Rewilding is a major project involving multiple partners aimed at restoring nature in several parts of the Highlands.

Regional water companies were noted as being active in all English and Scottish case study areas in terms of funding projects that support farmers to improve water quality. South West Water's Upstream Thinking project, for example, is now in its third phase, having been running since 2010, and uses local delivery partners to help farmers improve water quality through their land management. Similarly, Anglian Water and Severn Trent water offer various forms of funding and support to land managers to make environmental improvements that will ultimately benefit water quality. In Scotland, Scottish Water has been investing in different projects, including those aimed at creating sustainable forms of water management.

3.1.2 Organisational overlap – cooperation or silos?

Informant views on the extent to which environmental land management activities in each area are complementary and coordinated were mixed. On one hand, there were some positive examples within all case study areas (CSAs) of successful partnerships and good communication between different organisations working in this space. Partnership approaches based on supporting improved land management either at a catchment scale or with a specific, clearly defined objective, were among those reported as being effective at bringing relevant organisations together, perhaps because it is easier to align priorities and activities within these contexts. Examples include the management of invasive species (e.g. rhododendron) across multiple estates in Scotland; the Lincolnshire Chalk Streams Project; Upstream Thinking in Devon and Cornwall; and Moors for the Future in the Peak District (although note that there were also criticisms of some of these initiatives). As one interviewee commented, taking a long-term approach and having adequate resourcing is also important:

> "I think where success happens is where there are joint alignments. I think that's one of the things the Lincolnshire chalk streams project has been really good at is that all the stakeholders seem to be singing from very much the same hymn sheet and putting in resources to match that as well. So, that's both the Environment Agency and Anglian Water have supported that project, year in, year out. And obviously have seen the dividends that that's paying through taking a long-term approach" (L4).

Another participant noted the potential for Local Nature Recovery Strategies (LNRS) to serve a positive role in supporting coordination between organisations and initiatives:

> "I think everybody sees the benefit, you know, you are all working together. I think it is good and obviously LNRS, the Local Nature Recovery Strategy, which is coming out identifies what

projects are happening where, who the lead is and how the contact [is] available so that everybody in the team knows what is going on where and how we can all best link up. So, I would say it is pretty cohesive" (L10).

In some cases, there was an acknowledgement that, whilst coordination is not perfect, it is improving and there is an awareness among those involved of a need to develop it further. Significant challenges remain, however, regarding the coordination of activity between multiple organisations engaging land managers within any geographic location. As our desk-based study has shown, there are numerous initiatives operating within all CSAs at any given time and, whilst this can have benefits, it can also lead to siloed working and competing demands on land manager engagement if communication between organisations is sub-optimal, as recognised by some of the participants:

"We are conscious of the fact there are lots of us out there broadly doing a similar job, in some cases doing an identical job. So, yes, we speak quite a lot. We could each be helpful to each other and when it works well it is brilliant and then every so often it is less [than] ideal and it feels that we are competing with each other" (DC6).

"I'm going to speak openly. The people at [one organisation] kind of have the work that they do and they're not massively sharing with it. So, you know they have farms, they want to be involved in everything, they want to be part of something, they want to be consulted on everything and I think that would be a good idea if it then led to better partnership working. So, we do have some groups... but there's no kind of, there's no strategic plan for working with landowners across the Peak District. And I do think some of them are getting contacted by different organisations for similar things" (PD4).

Ultimately, ensuring coordination and complementarity between the activities of different organisations working in this space is important in order to maximise the quantity and quality of engagement from farmers. As one participant stressed:

"It's still the joining up that is needed… because there is a danger that you can have too many things happening and then people don't bother with any of it. And they just stick their head in the sand and think oh well we'll carry on doing what we're doing boy, and you know; it will all work out right in the end" (DC4).

We do not have enough evidence to draw any conclusions around whether one CSA is better or worse than another in this respect, although the number of projects identified as operational in Devon and Cornwall might present particular challenges as *"occasionally we end up sort of on the same farms"* (DC6), whilst interviewees in the Scottish Highlands were generally positive about the level of cross-organisational working. Some specific tensions (mostly around conflicts between different environmental objectives) were, however, identified by some interviewees and these are worth being aware of when considering potential future landscape-scale activities, especially since some of them are indicative of wider organisational, strategic, or policy-level issues:

• In reference to Scotland as a whole, one key informant discussed the challenges of coordinating resource and activity across what they described as a fragmented conservation landscape where *"everybody tends to work at quite a small scale of a particular reserve area where they're*

6

managing for a specific species". There are currently ongoing efforts to address this by bringing together public bodies across Scotland (the Economy Environment Leaders Group) in order to move towards landscape-scale working. Partnership working in this context is *"a big nut to crack because organisations are responsible to individual ministers and those kind of lines of accountability trump the lines that are associated with more kind of collective action across agencies".* The participant felt that:

> *"ultimately I think what we're going to have to do is encourage the Scottish Government to force us to align resources in those areas [where there are clusters of public land] to sort of demonstrate the kind of proof of concept and so rather than spreading our jam fairly thinly, actually putting big dollops of it here and there to demonstrate the impact of more collective, more collaborative action at a landscape scale" (SG1).*

- In the Scottish Highlands, two participants talked about organisations (and policy) not being joined-up in terms of identifying priority areas and the actions that need to happen within these. For instance, activities targeted at carbon sequestration do not necessarily align with biodiversity objectives so different areas may be needed for each. There is concern that the creation of woodlands across large areas may result in other habitat types disappearing.

- Trees were also at the centre of an example of local tension in Lincolnshire, where the informant felt that environmental objectives had not been sufficiently thought through by the organisations involved. This involved the conversion of arable farmland to woodland, where the new woodland absorbed the boundaries of an existing ancient woodland thereby - in the interviewee's view - compromising the value of, and ability to protect, that ancient woodland:

> *"I just think we should have done a lot better. But everybody was falling over themselves about the, I don't know, the reputational benefits from it, the political capital they could gain, and nobody was actually thinking about what are we actually doing here and are we achieving what we want to achieve, what might we be compromising along the way. So, I think that's something for the future that we do need to do better. We need not to just attach ourselves to these easy truths like planting trees is a good thing. We need to think about what negativity could flow from that as well and what might we actually be trashing in planting trees"* (L1)*.*

- Another participant in Lincolnshire commented that *"tensions can arise [between organisations] from time to time on ambition and direction of travel"*, especially in Lincolnshire because it is *"so nature depleted that where it does have hotspots, they're really precious"*. They felt that one organisation (which they thought highly of in general) *"do get a bit focused on the minutiae like around one rare plant or something like that, and they sometimes struggle to see the bigger picture and the longer term"* (L3)*.*

- One participant in the Peak District expressed their frustration with the regulatory framework regarding protected sites, which they believed was stifling innovation. As they explained:

> *"we find, as an NGO sector, it's really difficult to do something innovative. So, where we are pushing forward with doing things differently in the uplands and better solutions for nature and climate, actually where you've got a designated site and there's a particular list of things*

you can and can't do on that, it's sometimes difficult working with Natural England to test innovative solutions, getting the consents, because we're locked in this sort of static designation. It's really hard to try and do things in a bit more of an innovative and joined up landscape-scale because those designations are at a unit or site-based approach" (PD1).

3.2 Region-specific nature renewal challenges

3.2.1 Key environmental challenges and priorities

Participants discussed a wide range of environmental challenges and priorities in their regions. Many of these were relevant across CSAs, although the foci of participants' discussions did to some extent reflect the type of landscape and habitats present in each area. The issues mentioned in relation to each CSA are summarised in Table 1 below, although note this is based on inductive data and a lack of mention does not necessarily mean the environmental challenge does not exist in that area.

Table 1. Environmental challenges mentioned by key informants*

Environmental challenges	Devon & Cornwall	Lincolnshire	Peak District	Dundee	Scottish Highlands
General habitat degradation & a lack of connectivity					
Habitat restoration	• Species rich grassland • Wetlands	• Species rich grassland • Native woodland • Chalk streams & grassland • Lowland heathland	• Peatland	• Species rich grassland	• Species rich grassland • Native woodland • Peatland
Specific wildlife species	• Willow tit • Marsh butterflies • Horseshoe bats	• Woodlark • Nightjar • Grey partridge • Turtle dove • Tree sparrow • Dormice • Butterflies	• Birds		• Golden eagle • White-tailed eagle • Freshwater pearl mussel
Climate change					
Soil management & water quality					
Water resources					
Invasive plant species					
Deer management					
Game bird management					
Marine protection					
Bird of prey persecution					
Drainage					
Flood risk					
Lack of public access					

Shaded cells indicate the areas each challenge was raised in. Bullet points provide additional detail where applicable.

In addition to the challenges listed in Table 1, several interviewees talked about the nature of the landscape or the predominant type of farming in the area as presenting particular challenges in terms of nature conservation and renewal.

In **Lincolnshire**, where there are large areas of Grade 1 and 2 agricultural land, balancing environmental management with the need for food production and security is a particularly prominent issue (see also 'cultural barriers' below). One participant emphasised how food production is an important part of local cultural identity, and this must be acknowledged and respected within efforts to enhance nature renewal:

"The biggie in Lincolnshire is that Lincolnshire as a county sees itself as being part of the breadbasket of the nation. It's all about growing food. That's the most important thing. Nothing else matters. And that's why it's important to, so we can't turn round and say sorry, you're wrong, it's not that important at all. You just have to accept that that's what they believe to be the case and work with that, and get the best out of it that you can. It's all about, it's a proud heritage of food production, it's how everyone who's originally from Lincolnshire sees themselves" (L3)

In the **Peak District**, participants spoke about the challenges of balancing natural and cultural heritage within a National Park, and of grazing pressures on habitats due to the poor quality of agricultural land and associated pressure on farm incomes (and subsequent desire to increase stocking rates). One particularly emphasised the challenges presented by the lack of connected landscapes across the Peak District and concentration of dairy farming in some areas:

"It's the complete lack of connected landscapes. So, there's bits of, the ravines are really good in Derbyshire so we have these protected ravines and they're spectacular, and an example is the White Peak plateau. So, we have SSSI status ravines and SAC status ravines. But then in between them, there's 40,000 hectares of just arable pasture. It's just this super improved but really quite low grade arable land, grades four and five arable land that, and it's just this massive green space. And there's no robust ecological systems within that. The ecosystems are broken. They're good within the ravines but there's zero connected landscape. It's absolutely dominated by these vast dairy farms. I say vast dairy farms, there's 3000 farms in the Peak District and in this area there's 1800 just in the White Peak itself" (PD4).

In **Scotland**, the distribution of different types of farming systems (linked to topography and soil type) across the country presents different types of challenges in the Highlands and Dundee areas. The poor quality of agricultural land in much of the Highlands means that these regions are characterised by extensive cattle farming, whilst more fertile areas – such as around Dundee – are subject to more intensive use for cereal crops and horticulture. One participant noted that a shift away from mixed farming and crofting in the **Highlands** (due to changes in agricultural markets and economic pressures) has compounded the reliance on cattle farming, limiting options for crop diversity or *"alternative uses or mixed uses [of the land] that might encourage different species"* (SH1). The intensity of land use in the **Dundee** area (for barley, wheat, oilseed rape, potatoes, as well as fruit and vegetables), presents additional environmental challenges, as one participant explained:

"you've got challenges of relatively intensive arable agriculture…there's the inevitable environmental challenges of input use, regular cultivation, pressures on soil, soil quality, water

use. So, all those challenges of arable agriculture. Some farmers will be doing it, taking biodiversity into account, and will provide habitat around the edge of their fields and so on. Others will be much more, well, heavily production focused and not take as much account of nature" (SD1).

This participant also suggested that the use of contract farming in this area also presents a challenge, as the short-term nature of these arrangements means the grower may not have such an interest in the long-term sustainability of the land.

3.2.2 Key actions required from land managers

In part reflecting the breadth of key environmental challenges that were discussed, participants identified a wide range of key actions needed by farmers. The most common were:

- Hedgerows and/or field margin management (Devon & Cornwall, Dundee, Lincolnshire)
- Habitat creation and connectivity (Dundee, Highlands, Peak District, Devon & Cornwall) and habitat restoration (Peak District)
- Soil management (Devon and Cornwall, Lincolnshire, Scotland)
- Water management (Devon and Cornwall, Lincolnshire)

Other actions discussed included:

- Reducing stocking pressure
- Nutrient management
- Agroforestry or tree planting
- Reducing carbon emissions
- Business management planning
- Deer management
- Invasive species management
- Local food networks / move to mixed farming
- Partnership working

3.3 Farmer engagement in environmental initiatives

Farmer engagement in the delivery of environmental land management practices is recognised as being dependent upon multiple variables, beyond simply the monetary. This section explores the varying facets of engagement, from the extent of engagement, to *who* is more likely to be engaged, and examines the various barriers to engagement that exist on a national scale.

"The funding is not an answer on its own […] It is how we engage farming communities in making them want the same biodiversity outcomes as [environmentally focussed stakeholders]" (DC1)

3.3.1 Who is engaging?

Perceptions related to patterns of who is, or is not, engaging varied among participants. Several felt that engagement was more dependent upon the individual, their personality, and their personal interests rather than particular characteristics, such as age or farm type.

> *"Do they like a certain aspect about nature? Do they like trees? Do they have a local bit of amenity that's on their land? […] It would be very individual. Also, the individual assets they have and their relationship to it"* (SH1)

Others felt that a shift was occurring where engagement was slowly increasing due to 'sceptics' being persuaded having watched neighbouring farmers engage for several years and state that their actions were reaping multiple benefits, or by trust being built among organisation staff members and the farming community, and that this shift drives patterns of engagement more than specific characteristics.

However, some participants did suggest that some patterns exist based on either individual or farm characteristics.

Farm size (n=9)
Some participants, particularly in Devon and Cornwall, and Scotland, report that larger, very commercially oriented farms are less likely to engage with them on environmental delivery, and that smaller farms, 'lifestyle' farms, family farms and people who are farming in more 'marginal environments' tend to engage with them more.

> *"Larger, more intensive, for whom they would perceive that there isn't room financially in their business plan to make considerations for nature […] For less intensive farmers there is much more, meaningfully, on the table"* (DC6)

In other areas, such as Scotland and Lincolnshire, there was the suggestion that if major landowners did engage, they often had an *"ulterior motive"* (SH5) in terms of being driven by financial rather than environmental interests (e.g. managing riparian habitat to benefit fishing).

One participant said that engagement was dependant on what was being offered (e.g. soil was of interest to everybody but tree-planting and beaver habitats were reported to be of little interest to large, commercial farms).

Farmer age (n=6)
Farmer age was mentioned several times as a potential characteristic impacting upon engagement levels. Several participants mentioned that those most likely to engage were either new entrants or younger individuals who may have experienced regenerative agriculture as part of their education (at agricultural colleges etc), or conversely, those nearing retirement who 'remembered' what the biodiversity on their farm had been like when they had first started and were less economically driven at this later stage of their lives. However, one participant also stated that young or new entrants might be under more pressure to produce in order to build their business, and that older farmers might be more resistant to engagement due to poor experiences with government policy, cultural reasons, or lack of experience/knowledge/understand of nature recovery practices. One participant also mentioned that age might also negatively influence engagement in relation to poor levels of IT literacy among some members of the older generation.

Farm type (n=5)

Three participants said that dairy farmers were difficult to engage with due to how they needed to maximise their land.

"The difficult ones to engage with meaningfully are big dairy farms by a long, long way" (DC6)

"A dairy farm would struggle to put lots of agriculturally improved grasslands back into species rich meadows, for example, because their grassland and their cereal producing areas are important for their business" (DC5)

Arable and horticulture were also cited as likely to face challenges with some of the schemes. While mixed farms or livestock farms were seen by some to be able to reap the benefits of certain AES schemes more effectively due to how well they fit their farming systems.

"In a beef farm that's very extensive, they might be very willing to engage in a higher-level scheme or something like that because a lot of the payments are parallel to how they're managing the land anyway" (DC5)

Tenure (n=3)

Tenants were perceived by three participants as facing barriers to engagement due to short tenure arrangements preventing them from being invested in the long-term benefits of some activities, as well as their being under more pressure to produce due to high rents.

Commoners with access to common land were reported as potentially facing challenges in relation to nature recovery engagement due to the involvement of several parties inhibiting decision-making.

3.3.2 Unincentivised engagement

Four participants stated that, without some kind of financial incentivisation, they consider land managers to be unlikely to engage with biodiversity renewal agendas or schemes. These were not geographically linked (one each from Devon and Cornwall, Lincolnshire, the Highlands and the Peak District). The reason provided for the Highlands was that *"a lot of the land is so marginal, I think there is very few who would do that {voluntarily engage]"* (SH5). Otherwise, it was mentioned that small, piecemeal activity might be occurring but nothing substantial would likely be carried out without payment. One participant (Lincolnshire) stated that they were neither aware of, nor had encountered, any farmers who were undertaking environmental management voluntarily.

"It's always about, well, I'll do this as long as I'm paid for it" (L3)

However, 13 participants (6 in Scotland, 4 in Devon and Cornwall, 2 in peak District and 1 in Lincolnshire) reported that some voluntary engagement did exist in their areas, albeit in some cases, at a 'low level' (DC1).

"I certainly know of farmers that go out of their way actually to put their hand in their own pockets fundamentally to manage a bit of land in a certain way because they love to see the wading birds coming in" (PD2)

One participant in Devon and Cornwall believes that:

"There are some who really can't be bothered with the paperwork and don't think its much money anyway, and they do it because they want to do it" (DC2)

Another example was provided by a participant in Scotland of a land manager who, as a regenerative farmer, did not find formalised schemes useful or beneficial to their current regenerative practices due to the fact that the focus of activity is pushed to the edges of the farm, and they were interested in soil health in the fields right across the farm.

And one participant felt that voluntary engagement did occur but that cost would prohibit larger restoration activities, such as peatland restoration.

3.3.3 Farmer-specific interests and motivators

<u>Financial incentivisation</u>
Monetary incentives or the ability to convince land managers of the commercial viability of engagement in positive environmental land management is seen as one of the most effective means by which to encourage participation. One participant believes that, due to the fact that grants, subsidies and other scheme funding can be time-bound or politically vulnerable, ensuring enterprises are self-sustaining is an effective first step towards shifting attitudes. However, such an objective is not always possible.

Level of engagement related to financial incentivisation varies, between those who see opportunities to make money from otherwise inutile land or 'well, we're doing it already', to more active engagement where parcels of land are taken out of production to specifically fit a scheme's requirements. This is believed largely to be dependent upon perceptions of payment rates. One participant gave the following example:

'"This field I'm not really making much money off of. It's a steep slope. The soil's very exposed. Very happy to put that into stewardship and see some wildlife there because I'm never going to get much output from it"' (DC2)

A participant in Lincolnshire stated that, where payment rates were deemed insufficient by a land manager to deliver a certain environmental objective (potentially discouraging their engagement), their organisation would often facilitate their uptake of a scheme by offering to pay the perceived shortfall incurred.

"That enables us to get it done, which is great. It works" (L3)

However, such a strategy has the potential to be costly and will not be available as an option to all organisations.

<u>Pressure from the supply chain</u>
Supply chain pressure was perceived by one participant as being particularly effective for encouraging larger farming operations to engage in nature renewal, particularly those circumstances where financial incentivisation may not be sufficient to encourage uptake because schemes are likely to decrease potential revenue for a business.

"Some of the growers, especially the veg growers, they're getting pressure from the supply chain to make sure they're involved with biodiversity and sustainability" (L6)

Responsibility as 'custodians of the land'
Some mention was made of the inherent belief that as 'custodians of the land', farmers should leave their land in better condition than they found it, but few directly referred to this as a driver towards greater engagement with nature renewal.

Interest in nature
An interest in nature is not necessarily prevalent among many land managers, but several participants believe that this is key to engagement, and that it can be developed by getting people *"wanting to do it"* (L1). This might be achieved through peer-to-peer activities such as visits to model farms, or through training and workshops about wildlife and biodiversity.

> *"If I could design a grant scheme […] it would look like something which is more about winning hearts and minds and education, and developing a more integrated approach to land management"* (L1)

This participant expressed concern that '*chucking money'* at nature recovery encouraged cynicism among farmers rather than any interest in the outcomes of their practices.

Other participants had witnessed an intrinsic interest in biodiversity renewal or specific subsets of biodiversity renewal agendas, among the farmers with whom they worked. This included an interest in specific wildlife, which they believe can encourage certain activities or engagement in a scheme.

> *"Sometimes you do see examples where land managers are really engaged about particular things and they might be keeping their own records"* (PD2)

Tailored, farm-level advice
A participant in Devon and Cornwall believes that one-to-one, farm-level advice can incentivise land managers who might normally be resistant to engagement.

> *"What we are finding is that some of the things we're trying to incentivise with farmers starts to go against their business model […] but in those situations normally, again, we can tailor that with the farmer target areas […] so the farmer agrees there's marginal net gain from there for agriculture and so they're a bit more comfortable with shifting that to an alternate reason"* (DC3)

Support and expertise from external sources
Linked to the above, some participants believe that for engagement to happen, there needs to exist ongoing support and access to the most up-to-date information related to what is available to farmers, as well as means by which to decipher the different schemes and opportunities that are available.

3.3.4 Environmental features or species which motivate land managers to engage

Interest in environmental features or species is seen by some participants to help motivate some land managers to engage in nature renewal. One stated that it is as simple as the species which they

can see on their own land. Another stated that sometimes it is good to encourage interest in one or two key species, such as barn owls or skylarks, due to the fact that environmentally-focussed practices aimed at those habitats *"will have much wider impacts"* (L2). A number of participants believe that interest develops over time, and that by gentle engagement and effective approaches, disinterest or indifference can gradually shift towards a greater level of interest and uptake of certain activities.

> *"I've known crofters out on the west coast that wouldn't take an interest in a certain type of bird or whatever, but once there's an incentive and they're engaged with the RSPB officer and they're telling them all about it, suddenly they can become the champion of that 'thing'"* (SH3)

It is important, according to several interviewees, to ensure an alignment of farmer interests with an initiative's objectives.

The following features or wildlife, listed by frequency cited (from most frequent to least), were said to motivate farmers to engage with nature renewal:

- Birds (often those which are identifiable on the farm or used to be seen there historically)
- Habitat restoration
- Trees
- Mammals (beavers, brown or mountain hare, water voles)
- Pollinators
- Butterflies
- Beneficial insects
- Heritage features
- Margins, grassland
- River and water quality
- Soils
- Wetlands

Trees were also cited as one of the most demotivating features for land managers, sometimes triggering resistance to engagement. This is likely due to the varying negative narratives that have developed recently around tree-planting on farmland.

3.3.5 Local-level challenges and barriers to engagement

Stakeholder-farmer relationships and trust
Perceptions of relationships between farmers and stakeholder relationships were mixed, as might be expected with such a diverse range of geographic areas and activities. The quality of relationships between land managers and stakeholders seems partially dependant upon length of time of relationship and types of interactions. For instance, examples of good relationships emerged from the data, especially where individuals had built up trust through one-to-one engagements with farmers over time. But evidence of tension existing between stakeholder organisations and farmers was also described by multiple participants, with terms such as 'wary', 'poor relations', 'bunch of hippies', 'interfering busy bodies', used to describe land manager perceptions of nature recovery-focused organisations, inferring a level of mistrust of such bodies or individuals associated with them. One participant described how some farmers dislike a certain Wildlife Trust logo which because it has

a picture of a badger on it (Devon & Cornwall). Another described how some relationships historically had been 'intensely hostile' and while such descriptions among stakeholders were rare, it was suggested that 'we don't have to dig too deep to flare that all up again'. Further challenges influencing stakeholder-farmer relationships included the following:

- **Staffing issues**, where resource cuts have led to fewer advisors on the ground (e.g. Natural England and Environment Agency). A lack of regular, one-to-one engagement is seen as particularly detrimental to said relationships (an increase in which is perceived to hold huge potential in remedying poor relations).

    'Those relationships probably worked better ten/fifteen years ago when those organisations had a lot more staff and where somebody in a stewardship scheme would see their Natural England person every couple of years and now it is, you know, one visit at the start and then you might never see them again' (DC1)

- **The 'us and them' narrative**, where farmers (and some stakeholders) perceive organisations to be against agriculture (e.g. Wildlife Trusts), or lacking in either knowledge and/or interest in production.

    'Changing business models, changing livelihoods is a really important business. And I think sometimes people forget that, they forget that someone's livelihood' (DC3)

- **Suspicion of government agencies** (e.g. Nature Scot), where farmers have been 'inundated' with environmentally based projects (e.g. Dartmoor) and are wary of accompanying agendas and how they are administered.

- **The existence of a landowner-tenant relationship** (e.g. National Trust) can heavily influence engagement. Conflicts related to tenants' rights were described as sullying relationships, while strong relationships encouraged by roles built within organisations to build relationships are seen as directly improving engagement with environmental management.

- **Mistrust of particular initiatives and stakeholder association with them**, e.g. the peatland restoration project in Tavy catchment (Devon).

3.3.6 Wider challenges and barriers to engagement

Cultural barriers

As noted above in relation to the high-grade arable land found in Lincolnshire (see 3.2.3), participants made a number of references to tensions between nature conservation/renewal objectives and productivitism (i.e. the importance of food production within traditional constructions of farming identities). Whilst the image of Lincolnshire as 'breadbasket of the nation' may particularly reinforce productivist attitudes and limit openness to increasing environmental management within this CSA, similar cultural barriers were evident across **all case study areas.** For instance, in Devon and Cornwall two participants talked about how tree-planting can be perceived as a threat to farmers' identity because it can be seen as *"giving up on food production"* (DC1) or as a *"misuse of the land"* (DC2). Similarly, a participant in the Peak District explained how anything that moves hill farmers away from

sheep farming can be a real challenge because it's *"the way of life and it's in their heart, it's what they understand and I think that's completely understandable…that's their identity as sheep hill farmers" (PD1).*

One participant in Scotland explained how the engrained nature of this productivist ideology has both contributed to the fragmentation of the landscape, and limited farmers from more fully integrating environmental management into their farming practices:

> *"So, seventy years of a productivist ideology is the fundamental one [barrier to nature renewal practices]. You know, all the kind of land grabs of the post-war years, that this land is for farming, that land is for forestry, you can have a bit of nature over here. That fragmentation, that ideology that productivity and yield are king is, even despite the minor shifts away from that in the seventies and eighties through agri-environment schemes and so on, they're still fundamentally productivist because at a very fine scale they're still dividing the land into the productive land and the non-productive land on the field. The edges and hedges, as some farmers call it. So that is an incredibly pervasive ideology that is really the barrier to all the things that we've been speaking about."* (SG1)

Economic barriers (incl. lack of time and risk)
Economic factors were one of the most frequently cited barriers to engagement. This is linked to risk and risk perception, business management, debt, ability to invest (e.g. in machinery or buildings), uncertainty around payment schemes and payment mechanisms, limited cash flow (particularly for small and upland farms), tight margins and wider economic forces (such as price and market fluctuations and policy changes) - all factors which can influence decision-making in relation to farming practices. Time and time constraints (to implement delivery of environmental management actions, for example) were also cited as an issue.

Organisational barriers
Participants also revealed a number of barriers related to organisations themselves which likely influence levels of farmer engagement with environmental management. These included the following:

- Funding issues – dwindling resources from funding sources, insufficient payment rates of schemes, lack of funding continuity, lack of available funding expertise for farmers.
- Insularity/siloed culture of organisations – it was reported that some organisations are unwilling to engage with other organisations or divert from their original objectives.
- Poor delivery of objectives to land managers can be discouraging – one participant stated that if you present an activity as a good business decision as opposed to a nature recovery decision, more people will engage:
  "if you were a dairy farmer and I said to you, you could plant some trees in your nice grass field […] you'd probably ignore me. But if I […] asked you where were your cattle last year, in the really hot summer, they were all under trees, and so actually planting trees will improve the health of your livestock and therefore improve the business efficiency… […] you've always got to put a commercial spin on any environmental suggestion" (L11)
- Lack of continuity in funding/grants/initiatives
- Lack of resource/staff/capacity to cover large areas

- Competition with other organisations/initiatives (e.g. funding, participants)
- Confusion among land managers as to affiliation of some organisations
- Ineffective delivery models (e.g. one-to-many instead of one-to-one)
- Farmer fatigue affecting levels of interest and uptake
- Difficulty building trust with potential new scheme participants
- Compliance/lack of regulatory presence

Practical barriers (AES, policy, bureaucracy lack of knowledge)

One of the most cited practical barriers to engagement for farmers themselves was **government policy** and in many cases, more specifically, **issues with AES schemes**. Issues include:

- Cuts in support staff, particularly Natural England.
- Perceptions that schemes fail to deliver intended consequences which may result in the perception that engagement is pointless.
- The potential for compliance issues can be off-putting (e.g. experiences of being fined for small discrepancies put some land managers off of engaging in larger schemes). This should, however, be less likely with the new schemes.
  "It has made so many farmers wary of engaging in the more positive stewardship schemes because they have been burnt so many times" (DC1)
- Lack of information regarding policy changes and new schemes creates uncertainty and lowers the likelihood of engagement.
- Scheme complexity – the likelihood of having to pay for one-to-one advice in order to understand how to engage with a scheme might prohibit engagement.
  "[Schemes should be] simplistic and easy to understand and not have to pay an agent to find the way through the minefield of rules and regulations" (DC4).
- Payment rates aren't high enough to encourage engagement.

A second barrier to engagement that emerged from interviews was the general **lack of knowledge or access to information** on the part of land managers.

> *"They don't know what to do. They might want to do something but […] they don't know how to get that information"* (SD3)

A lack of knowledge is also said to manifest itself in a form of 'denial' where some land managers are said to have challenged participants as to the validity of biodiversity loss claims. Misinformation was also reported to be a problem.

This lack of understanding, however, can also extend to stakeholders, who may not feel sufficiently informed regarding wider agendas of initiatives, schemes or policy. This can make it feel more difficult for land managers to find advisors who they trust to provide them with the necessary information regarding an initiative.

Other practical barriers to engagement reported by participants includes administrative burden, bureaucratic issues, and the scale of certain environmental issues being overwhelming.

Social barriers (influence of peers etc)

The most commonly cited social barrier to engagement was **peer-to-peer influence and symbolic capital** that is accrued by land managers through their land management practices.

> *"There is definitely issues around barriers within the farming community […] The whole idea of, if you do something different to what your neighbours are doing, you will stand out and potentially be talked about"* (DC1)

Ten participants referred to the importance of peer influence on farmer behaviour and decision-making, and how farmers feared being ridiculed or judged by neighbouring farms for having messy hedges, or not being 'efficient' or 'productive', or were competitive about aspects of their farm or production.

Conversely, however, it was mentioned that it is this peer pressure that could be harnessed to drive greater uptake and engagement. This ties into the 'good farmer' narrative and how a transition in the meaning of what it means to be a 'good farmer' can facilitate nature recovery objectives, in time.

Coordination of stakeholders for the achievement of landscape-scale change was also reported to be an issue, and links to the scale issue mentioned in the previous section.

> *"There might be five land managers own a single hill together. And how well do they coordinate with each other? Do they share the same aspirations as one another? Have they got the same sort of agricultural businesses as one another, with the same interests?"* PD2

Computer literacy was also reported to be an issue for some land managers.

3.4 Networks, collaboration and cooperation

Respondents were asked about their perceptions of social relationships, and levels of collaboration, between farmers in their area. It is, of course, difficult to make generalisations about this topic and most participants noted the variability between individuals, with some farmers more closely networked than others, and some more open to collaborating for environmental (or other) purposes. Nevertheless, common themes emerging from across the CSAs included: the strength of peer-to-peer communication in influencing farmer attitudes towards collaboration; the effectiveness of farmer-led (compared to top-down) initiatives and the relative success of CSFF and farmer clusters for facilitating collaborative environmental management; and the increasing willingness of farmers to engage in landscape-scale management. It is also apparent that whilst in some places participants perceive a traditional culture of independence and lack of cooperation between farmers, in others (e.g. upland commons and crofts) farmers are very used to working together for economic and practical purposes. More specific information regarding participants' views on farmer relations in each area are detailed below, as this provides important local context to inform future work within RENEW Theme 3.

Devon and Cornwall
In Devon and Cornwall, several of our participants commented that, whilst farmers generally know and get on with each other at a local level and will support each other on a day-to-day basis, there is

not a tradition of cooperation in the region. Collaboration between farmers for business purposes was seen as *"not naturally in their DNA"* (DC2) and one participant referred to the Westcountry in general as a *"graveyard of failed collaboration"* (DC4), relaying a local joke that epitomises the customary cultural attitude:

> *"Cornwall probably is the worst of the lot. In fact, there's a sort of tongue in cheek joke that if you want to get collaboration with three Cornish farmers, you get them in the room, the first one argues with the second one - or shoots the second one, whatever you want to say - and the third one gets on with it. That's collaboration in Cornwall"* (DC4).

The participant went on to attribute this attitude partly to Cornwall's distance from centres of authority (i.e. London and Brussels) and consequential *"fierce independence"* and *"can-do approach"*. They did, however, emphasise that effective cooperation and collaboration can nevertheless be achieved where there is a clear objective, and observed that there is an increasing willingness among family farms to work together, as they *"have been the ones who realise that they could be up against it and the only way that they are going to try and help themselves is to collaborate with others, to see best practice and try and help their own businesses move forward" (DC4).* For example, a farmer-led group in the Tamar Valley (the Stoke Climsland Farm Cluster) made a successful application for CSFF funding that involved joining up 21 farms within the parish, amounting to around 90% of all the farms there.

Positive examples of farmer-led groups (not necessarily oriented towards environmental objectives) were also noted by other participants, including one bringing together farmers who supply Riverford Organics, and one linking up farmers on Dartmoor and Exmoor. One person particularly noted the positive effect that farm clusters are having in terms of bringing a mix of farmers together to facilitate peer-to-peer learning and share good practice, especially because: *"it's specific to that area and they work on their own priorities of what they feel they can deliver. So, I think that movement of farmer clusters is really the way to go forward rather than trying to do things alone* (DC5)".

The strength of peer influence in encouraging other farmers to get involved in cooperative or collaborative environmental management was also demonstrated in another participant's account of their experience engaging farmers in projects within a specific locality:

> *"What we find is that if we are able to make inroads into a farm in a particular area, invariably what happens…is then their neighbour rings us. And certainly, the biggest influence on a particular farmer to work with us is someone nearby that is doing it… I think farmers, they are an odd sort of bunch in that they trust each other. If one of them says, this bloke is alright, they trust it but they are also really competitive with each other which, which sort of can be a real bonus in that, you know, if somebody has, I don't know, if someone has planted two hundred metres of hedge, then they want to plant three hundred"* (DC6).

Lincolnshire

The effectiveness of farmer-led groups and peer-to-peer demonstration was also highlighted by participants within Lincolnshire. One example given was a farm cluster in the Lincolnshire Wolds, where a leading regenerative farmer has had a positive effect on others in the group. The effectiveness of this group was also attributed to the very good communication skills of the facilitator

and the fact that *"these farmers do want to protect this landscape and understand and appreciate the area where they live"* (L8/9/10). Another participant (L4/5) also commented on the increasing willingness of farmers to engage in landscape-scale management, again citing an example within the Wolds where their organisation was approached by a land owner who wanted to engage other farmers up- and down-stream from their land in efforts to re-wild a river corridor.

The quality of farmer relations and openness to engaging in collaborative initiatives remains variable, however, with some areas noted as presenting a particular challenge. The reasons for this variability are difficult to identify, as it often comes down to the extent to which farmers in an area get on with each other (which will itself be influenced by a multitude of complex individual, familial and cultural characteristics and histories). For instance, the Grantham area (in southwest Lincolnshire) was noted by one participant as being quite a difficult area to engage farmers in, as they felt there was a general lack of cohesion and friendliness (although the larger estate were keener to be involved and demonstrate their interest), in contrast to areas such as the Welland and Eyebrook catchment where farmers knew each other and were easier to engage. Another participant commented that social relations were better in areas of Lincolnshire where there were a lot of small family farms, compared to areas such as Bedfordshire (where the participant had previously worked) where *"there's a lot of big businesses and people were suspicious of each other and their neighbours" (L6/7).* However, this type of association between farm size and willingness to collaborate cannot necessarily be generalised (as the previous comment about large estates demonstrates).

<u>Peak District</u>
Participants in the Peak District generally felt that there was a good level of collaboration between farmers in the area. This was attributed to farmers all knowing each other well and forming a good support network within the community, and to a cultural history of livestock farmers all having to work together (especially on the High Peak) to move livestock on an off the commons each season. Livestock auction marts were also noted as social hubs.

One participant felt that the large partnerships and forums currently operating in the area (e.g. the National Park) were particularly effective at bringing people together, although noted that there were also tensions within these groups. Other tensions noted by participants included a general suspicion among some farmers of others getting involved in new initiatives of trialling practices not seen as 'traditional', and occasions where individual farmers may disagree with the type of land management being carried out on neighbouring land (for example by an environmental organisation) or being pushed by a landowner. The importance of dialogue between farmers and organisations in negotiating such tensions was emphasised:

> *"There has to be kind of a co-production and you know oftentimes, that just requires dialogue. So, you know, we see that ongoing. And obviously the focus being that you need to optimise multiple benefits and understand all the different perspectives that are involved in it. So, there's a lot of dialogue I'd say, that's probably a better way of understanding it. To kind of work across land ownership boundaries, you have to understand all the different stakeholder perspectives that are there and ultimately, if you're going to make progress with nature recovery, you need to find something which works for everybody. And so yeah, the dialogue part of it is really important"* (PD2) .

Dundee

The variability of levels of collaboration between farmers was again stressed by participants regarding the Dundee area. It was noted that some work really well together and/or have strong social networks based around leisure activities. Two participants commented that collaboration tended to be for economic rather than environmental purposes. For example:

> *"I think you find in the more intensive areas, collaboration is more common now on machinery rings and on producer, you know on co-ops. It's still not as much as it is in other parts of the world but there is a degree of collaboration where it suits them in terms of particular projects"* (SD1)

However, there are also clearly some good examples of effective collaboration for environmental purposes, with one participant commenting that good relations are essential for this, and can persist alongside a sense of healthy competitiveness regarding farming practice:

> *"I'm laughing because I'm thinking again of the competition thing, 'my combine's bigger than your combine', you know that sort of thing. 'Haven't you harvested your wheat yet?' It seems to be pretty healthy and of course, they've got to get on because we need them to, you know, maybe sow some wildflowers or something to attract pollinators. And also bring them together at meetings. So, I would say they get on, yeah, they all seem to be good friends"* (SD3).

Highlands

Echoing discussions in the Peak District, participants in the Highlands commented on the way that the type of farming (and crofting) traditionally practiced in the area has always involved a certain amount of working together (for instance to bring sheep flocks in at certain times of the year), especially where there are communal areas of grazing. One also noted the strength of community within many (but not all) crofting townships, which – whilst certainly not free of tension – creates a constructive environment in which farmers work well together. This is partly driven by the small-scale nature of crofting and the need to share resources and contract necessary equipment out to each other, often in an informal manner:

> *"Quite often what happens is they cut the grass, and they keep the grass and don't pay for it, if you know what I mean. That's their payment. So, it's a kind of symbiotic relationship rather than a contract. And so yes, there's a lot of collaboration goes on at that scale"* (SH2).

Whilst much of this collaboration is for economic purposes, there are also positive signs within of farmer clusters being successful within the Highlands (as elsewhere):

> *"There are more farmer groups being set up, farmer clusters, where they see the advantage in starting to talk across the farm fence to each other… At landscape scale, yes, but to do it under their own initiative"* (SH5).

3.5 Impact of BPS removal and attitudes towards environmental schemes

Across the case study areas, there was general consensus among participants that the loss of the Basic Payment Scheme (BPS) is likely to have a greater adverse impact on farms that are already operating on tight margins, such as small, livestock farms (especially in upland areas) compared to larger, often arable-focused, enterprises. This is currently a more prominent concern in England, where BPS payments are already being reduced, than in Scotland where the pace of change is slower.

England
Several of the participants in both the Peak District and Devon and Cornwall believed that many farm businesses in the region (where there is a high proportion of small, livestock farms) will struggle to survive without the BPS, and this is starting to cause considerable concern. As one participant described;

> *"I think the main impact probably has been just an increase in fear on farms […] The farms most at risk generally would tend to be the smaller farms which largely are beef or sheep producers where the kind of margins for them are very, very slim. The cashflow is horrific"* (DC6).

Farms in upland areas (including Bodmin Moor, Dartmoor and Exmoor, as well as the Peak District) were noted as being particularly vulnerable. One participant in the Peak District noted that there is a feeling among farmers there that upland farms (many of which already have a strong nature conservation focus) will have less options than lowland farms because the schemes are focusing on areas where there is more potential for change. This is not a straightforward distinction, however, and one Devon and Cornwall participant stressed that small businesses in other areas of marginal land (e.g. lowland pasture, in-by land, moorland fringes) face particular challenges because they have less options available to them under the Sustainable Farming Incentive (SFI) than upland farms.

One participant felt that it is the 'very poor' businesses, which have been 'propped up' by the BPS, that are likely not going to survive, whereas the more adaptable businesses will find ways to continue to prosper:

> *"The good businesses tend to get their head round everything. So, some of the really good farms in the South West are very good at producing food but have also got their head around the environmental stuff and are making, you know, maximum use out of environmental subsidy. As a business they just look at all these things and are trying to factor them all in to make their businesses as resilient as possible. Those people will continue to do quite well. The others, you know, I think, yes, they will struggle to adapt to the new system definitely"* (DC1).

There was general agreement that the transition away from BPS is driving increased interest in environmental schemes among farm businesses keen to replace at least some of the income they are due to lose. Interest in accessing business advice around this has particularly burgeoned over the last year as the loss of BPS is *"beginning to sink in… Now farms that you wouldn't ever see engaging in anything are suddenly turning up in big numbers at these evening meetings to find out what the way forward is"* (DC4). Another participant made a similar observation:

"It has been interesting actually where this year suddenly it is like everybody has woken up. Every farmer has woken up and realised this is actually happening. I mean, last year we were talking to lots and lots of farmers in the area, we were encouraging them to think about Countryside Stewardship…we had some uptake but not masses. This year we are inundated beyond our capacity with farmers that want support" (DC6)

In Lincolnshire, where farms are, on average, larger than in the Peak District and Devon and Cornwall, participants did not express as great a concern regarding the impact of the BPS removal on overall business viability but noted a similar drive among farmers to look more seriously at environmental schemes. One participant described an example of a private estate which has begun a re-wilding project:

"They looked at their overheads and their income, their bottom line from farming, and again, same thing, poor quality soils, really hard to grow stuff, you have to throw loads of chemicals at it, and they thought, we're really not making very much money out of this at all and it's really hard work. Basic Payment was basically where most of that income was coming from, and now that that's disappearing, they had to rethink. It was a business decision at the end of the day but having taken the plunge into the world of investing in nature basically, the owner's told me, she said that that's where we're going, there's no going back. And you just think well, I want to hear more of that please" (L3).

The Agricultural Transition does therefore appear to be driving a growing interest in environmental management schemes, although as two participants (one in Devon and Cornwall and one in Lincolnshire) noted, many farmers were already motivated by personal beliefs in the value of the environment. A growing realisation of the realities of climate change and other environmental challenges may also be contributing to this attitudinal shift. Nevertheless, uptake of Countryside Stewardship or other schemes is not a given and will depend on each farmer's view on whether the level of funding available will *"actually make that bottom line stack up"* (DC4).

Scotland

In the Dundee area, like Lincolnshire, participants noted that the BPS tends to make up a smaller proportion of income for the large-scale, arable, dairy and horticulture farms in the area than for smaller, livestock-oriented farms elsewhere, and thus the prospect of its removal is not a huge concern here. Participants noted that awareness and attitudes towards environmental schemes and activities in the area are beginning to change, especially among younger farming generations, but that there *"are still opportunities to add value"* (SD2) and *"it's a slow process"* (SD1)*.*

In the Scottish Highlands, however, participants were more concerned about how the eventual move away from direct payments will impact farms where, as in the English uplands, profit margins are tighter. The slower pace of change regarding the loss of BPS in Scotland compared to England means that these impacts may not be perceived as such an imminent threat, but the uncertainty around the issue is itself causing distress. As one participant said:

"I guess the biggest issue is the fear that nobody actually knows what is coming next. That makes it really, really difficult. A very emotive thing to talk about. A lot of farmers just don't want to talk about it because it is emotive" (SH5).

In a similar vein to some of the comments from participants in the English CSAs, one participant in the Highlands explained how they are using the future loss of BPS as a lever to encourage farmers and crofters to get their land *"into the best part from a nature conservation perspective"* in order to *"optimise [their] chances of carrying over as best as possible [their] BPS into whatever comes next"* (SH3). As another said regarding the future of environmental schemes and related impact of policy change on farmers and crofters in Scotland, much uncertainty remains and *"the devil is going to be in the detail"* (SG1).

3.6 Private and blended financing of environmental management

According to our findings, understandings and perceptions of blended and private finance opportunities for environmental management of land still vary widely. This is the case for both stakeholders and, according to participants, land managers. One participant (Devon and Cornwall) described a move towards private finance as "*the new wild west*" for farmers, but as something that many still don't understand fully. However, at the same time they viewed it as having the potential to reform attitudes to land use through shifts in reward systems. However, a participant in Scotland was more cautious, reporting that carbon-offsetting was creating significant shifts in land use agendas which might ultimately negatively impact upon small farmers and rural communities due to the homogenisation of land use for carbon-offsetting purposes.

> *"There's a big shift happening in Scotland in farming that's nothing to do with farming […] there's now a new market, a new kind of landowner {…] you might see a lot of farms being taken out of farming altogether"* (SH1)

Some participants in Lincolnshire were aware of opportunities emerging, with one reporting that they were already involved in a large enterprise network aimed specifically at blended finance:

> *"Farmers put in bids through their grain traders for funding to do regenerative agricultural practices [...[] and then we decide who's getting funded for what practices […] the demand [from farmers] far outstrips the supply [of funds]"* (L6)

Another was aware of a business pledging a substantial sum towards environmental projects but had yet to see any *"in full strength yet"* (L11) and was unable to ascertain specific benefits to small farmers at this stage.

Perceived barriers at this stage include being a tenant (as landlords are considered more likely to retain available credits, such as carbon), lack of advice and information, and general mistrust among the farming community of the agendas related to private finance.

3.7 Community-farmer relations and other local issues

When asked about whether there were any particular local tensions in their areas, the majority of issues raised by participants related to relations between farmers and rural communities and/or the wider public. This is a theme that consistently recurs within our research with land managers, and our RENEW key informants conveyed familiar narratives around there being a disconnect between

farmers and non-farmers (although some positive examples of farmers engaging with the general public were also given) and a lack of public understanding and appreciation regarding farming practices and food production. Related issues mentioned by participants include tensions over public access and pressure on landscapes from tourism, damage to crops and livestock from dogs, trespass, uncontrolled fires, fly-tipping and other anti-social behaviour.

Farmer-community relations are not always negative, however, and one participant talked about how there might be opportunities to make environmental improvements whilst also fostering connections between farmers and the local community through particular initiatives. As they explained:

> *"We're working on [a flood risk programme] and within that we're engaging the communities to start understanding what's happening within their river, not just in terms of flooding but in terms of water quality, drought, biodiversity, habitat and species, and what the farmers can do about it. And the reason why I said earlier on we've chosen a sort of small catchment, 5-10km^2, is that at that scale farmers are not distant to the community, they are part of the community. And so therefore, it's just an interesting hypothesis we're testing at the moment of, if you engage them and the community and they're all interlinked, will they be more likely to take up actions because they can see that they're having an impact on their neighbours and their community? Whereas if I was trying to ask someone, a farmer, who was 20 kilometres away from a flood community, they might feel no interest whatsoever in the members of that community and so therefore you won't create any social pressure or social contract there. But in the same breath the people in that community are unlikely to go out of their way to support the farmers in their community by buying local produce or talking to them about their pressures"* (DC3).

Another participant also emphasised the importance of acknowledging and involving local communities within landscape-scale initiatives due to the extent to which those landscapes are used and valued by non-farming publics (especially in National Parks such as the Peak District):

> *"We're talking about land managers that look after these landscapes but actually they're massively used by a huge group of communities in and around them that are not land managers. So, just understanding how they interact with the changes and what they think about them and how we bring them with us or they act as advocates. It's a really well visited landscape, the Peak District as a national park, and there's lots of big conurbations, so Sheffield, Manchester, right on the doorstep. So, whatever's happening in the Peak District impacts lots of those people both within and outside the Peak District that visit it for their wellbeing, their enjoyment, their recreation. So, just thinking about how all that plays in as well I think is really important"* (PD1).

The majority of discussions around local issues in the English CSAs centred around general tensions between farmers and non-farmers, as discussed above, although disagreements regarding moorland management (e.g. stocking levels, managed burning and wildfire risk management) were also mentioned in the Peak District. Participants in Scotland, however, did point to a number of other specific local issues (some of which are also likely to be present in England, but did not arise in the interviews). Regarding the Dundee area, these included: the reintroduction of beavers; competition over access to water supplies; disagreements over access roads; and competition for available land

that could be rented for potatoes. In the Highlands, issues raised included: a lack of infrastructure and local abattoirs; a general lack of investment in rural areas; a lack of affordable housing; large parcels of land being sold to outside buyers for carbon off-setting; and conflicts between management for shooting activities and environmental objectives. Deer management was noted as an issue in both the Dundee and Highlands areas.

3.8 Decision-support tools

3.8.1 ENABLR decision-support tool

Due to a lack of clarity pertaining to the format of the ENABLR decision-support tool at the time of interview, participants could only be offered a very general idea of what the tool might offer to organisations, advisors, and land managers. However, insights into, and attitudes towards, the potential opportunities afforded by a new tool within the wider decision-support landscape were captured.

<u>Attractiveness</u>
Perceptions related to the attractiveness of a potential new tool were mixed. Some participants showed enthusiasm towards it as a general idea, while others were more sceptical, with one stating that unless linked specifically to regulatory requirements or funding (i.e. that it required voluntary interest only), then a new decision-support tool would be of no interest to farmers. The question, 'what's in it for the farmer?' was asked by several participants, with doubt expressed as to the likely uptake of a tool if accurate and local-level appropriate information linked to funding did not form part of the options offered. There was concern that tools or mapping apps tend to miss crucial detail:

> "*I just think that the challenge is often when we dig into the detail it's not there and so you sit there and go, okay you can have wetland opportunity here and then they go well actually you wouldn't realise any value, because you're not upstream of an area that benefits from it, or you're not in this zone or you're not in there*" (DC3)

Some participants stated that digital literacy issues may act as a barrier to some land managers, and that face-to-face engagement with local service providers regarding land use decision-making is preferred by a range of farmers (and advisors).

> "*There's still no substitute for local knowledge, professional expertise and judgement. You can stick loads of data into models as much as you can, you've still got to go out and ground truth the reality in the end. So, I personally, I can't think of a single one that's ever been, of that kind that's ever been helpful*" (L3)

It was also suggested that such a tool might be of more benefit to large farms:

> "*For farms, bigger farms, it may well be worthwhile. I think for smaller crofts and farms it might be a bit of a sledgehammer to crack a nut, to be honest*" (SH2)

However, a number of participants identified the opportunities that such a tool might provide, not only to the land managers, but also people acting in an advisory capacity, in order to help 'cut through some of the complexities', although one participant said that any new tool would need to be 'exceptional' in comparison to other decision-support tools already available.

Desired features

The following are examples of the desired features of a new decision-support tool app, as suggested by participants.

Presentation

- **Visually accessible and map-focussed features** were described as crucial to the presentation and thus attractiveness of a tool to users.
- A **simple, easy, user-friendly format** was also seen to be important, particularly for land managers, who tend to be extremely time limited.

Usability

- **Accessible** and useful to land managers, stakeholders and agents.
- **Flexible, adaptable, low cost, local and bespoke** features.

Reliability and appropriateness

- **Reliable** and accurate.
- **Local-level appropriateness:**
  "*If the app can readily identify the physical features of the land and the optimum biological systems that then sit with that, that would be a nice combination to make rather than, for example, not rather arbitrarily assigning different parts of the farm to different biological habitats and communities. I think that the interaction with the physical fabric of the land is really important for interventions that are going to last*" (SG1)
- **Avoid single-site focus** and link in at landscape-scale.
- But ALSO have **field-scale** rather than whole-farm scale options:
  "*I guess my one challenge would be, how is the landscape being considered in a model that's making decisions at a field scale*" (PD1)

Usefulness/Purpose

- Ability for the tool to be used **to justify the business case for a scheme** (by farmer or advise).
- **Avoidance of being overly prescriptive** (giving a choice to empower farmers to make a decision themselves), e.g. by offering various options to address habitat issues.
- Ability to not only interpret (on both a field scale and a landscape scale) what the **benefits of change** implemented might be, but also, **what the potential losses** would be if *no change* were to be implemented (e.g. greater catchment-level flooding).
- **Include financial cost-benefit option.**
- One of primary purposes should be **to decrease complexity.**
- Should act to **support and inform decision-making** rather than dictate.
- Should be able **to 'talk to' other existing tools.**
  "*What we found with all of the tools that developed, any tool that is developed, they need to be able to talk to each other because a lot of the farmers that we work with will be asked to do certain things or report certain things by their buyers and that is usually through some web-based platform*" (SH5)
- **Include potential costs and cost savings** in short and long-term as well as biodiversity info.

Other

- **Include flooding and water quality.**

The importance of tool development being land-manager-informed should not be overlooked. One participant stated that farmers do query what kind of information is sought to develop tools and can be resistant to the concept of modelling, stating that they too should be consulted for product development.

> "*If people can understand okay, well if we'd like to try and do this on this area of land and we think that'll be beneficial for all these different reasons, how long will it take, what will the cost implications be, how do I plan that into my agricultural business model. The ability to do that is what fundamentally enables something to happen. So, a tool that you know helps facilitate that dialogue and even if it just puts a kind of an illustrative scenario, gives the ability for somebody to sort of model something out in their mind about doing it*" (PD2)

3.8.2 Effectiveness of existing tools

Perceptions around the effectiveness of the various decision-support tools which already exist varied among participants, with several stating that well-established apps such as Land App and Magic are very useful, and others stating concern that such apps take away from the farmers' direct engagement with the land and subsequently, the consequences of their practices. It was felt by some that any new tool designed via the RENEW project would be in direct competition with well-established tools, or other sources of information which might allows agents or farmers to achieve the same outcome.

3.7.5 Other tools mentioned during interviews included the following:

- Trinity ag tech https://www.trinityagtech.com/ (RENEW tool was compared to their *Sandy* software)
- Magic
- Land app
- Web map (Natural England)
- POBAS tool – description by participant "*with POBAS, we have been looking at a field and an outcome and then a support tool through an app which directs you towards how you are progressing towards that outcome. The bit we didn't fit in was the cost and that sort of field scale. Although we did start testing some of the costs that might be necessary for them to implement the management changes to meet that outcome*" (SH5)
- ELS online
- Dexi (CSC?)
- Soil Association currently in process of developing models to assess environ. impact of farms

4.0 Conclusion

The findings, although varying across respondents or study sites, show how widespread and diverse environmental land management activities are in the UK. Environmental land management is a

vibrant sector that mobilises multiple small and large environmental organisations and other regional and local stakeholders. However, levels of engagement vary among land managers. Much work is still needed to boost their engagement in nature renewal. Further efforts are also needed to improve the way land managers engage with nature. The latter was a central concern of this project's respondents, whose responses shed light on a number of possible measures or principles that could contribute to improve engagement. High quality engagement thus depends on:

➢ *Co-designing environmental land management objectives and activities with land managers*. What a land manager understands as their relationship to the land and food production is central to whether they engage with nature renewal or not. Some, like arable farmers in Lincolnshire, have a more productivist attitude than many small land managers, such as the lifestyle farmers in Devon and Cornwall, and are consequently more likely to construe environmental land management as a 'threat' to their identity. High quality engagement is more likely if land managers are in a position to reconcile their identity (values, beliefs and preferences) with nature renewal activities. While economic incentives are 'a step towards shifting attitudes' they can induce 'cynicism' among land managers and are therefore limited in their capacity to secure high quality engagement. The latter can be best achieved by responsibilising land managers, that is, giving them a stake in designing environmental objectives.

➢ *Facilitating collaboration among land managers.* This is key to two aspects of engagement: effective land scape-scale environmental land management and access to knowledge and information. Through landscape-scale collaboration, land managers can create synergies that have beneficial environmental effects. Also, while land managers know their land extremely well, knowledge about the environmental impact of their practices, about agri-environment schemes, and about the best way to deliver those schemes' objectives, tends to vary widely. How they access knowledge/information also varies. Collaboration can help increase access to knowledge/information by opening up channels of communication between land managers.

➢ *Consolidating inter-organisational collaboration*. While clear examples of effective collaboration between environmental organisations exist, much work is still needed to ensure activities of different organisations complement or reinforce one another. Doing so is key not only to achieving effective environmental land management at landscape scale, but also to boost land managers' confidence in nature renewal activities. By helping prevent the duplication of efforts or presence of contradictory nature renewal activities, inter-organisational cooperation has an obvious benefit for nature. But in doing so it also gives land managers less reason to doubt the effectiveness of nature renewal activities.

Empowering land managers in decision making around the design of environmental objectives and activities is therefore central to high quality engagement. *Collaboration* itself is empowering, in virtue of opening up channels of communication that can act as outlets for self-expression and mutual understanding.