

Developing across-organisational social science resources for non-social scientists within environmental organisations

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Foreword

Natural England led this initiative with the support of the Natural Environment Social Research Network, Newcastle University, and the National Centre for Research Methods. Together we identified a need to enable better use of the social sciences in environmental organisations and sought to pull together some starter resources to address this need. The ACCESS network supported this initiative financially through its Flex Fund due to its aims to promote the use of social science research in tackling and solving a range of climate and environmental problems.

Executive summary

The project aimed to advance the use of the social sciences in addressing environmental challenges. It sought to do this by growing understanding of the social sciences among non-social scientists within environmental organisations.

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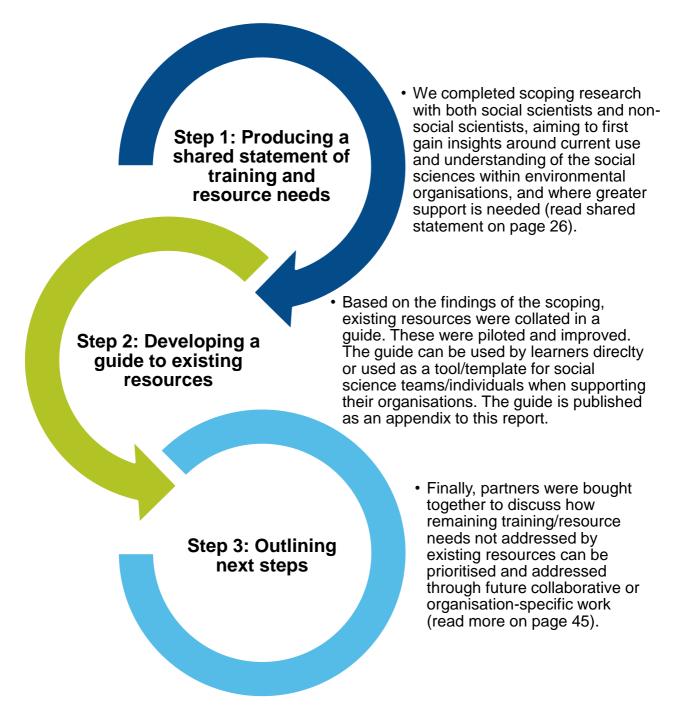


Figure 1: Overview of the steps taken in delivering project aims

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Introduction

Environmental problems are created by, understood by and solved by, people. There is now an urgent need for non-social scientists within environmental organisations to be better equipped to engage with the social sciences to advance the use of the social sciences in addressing climate/environmental challenges. Non-social scientists leading interventions, programmes and policy already use the social sciences to understand important issues around human relations with nature and nature recovery. This is encouraging but also too often done without proper consideration of ethical issues, and inappropriate use of social science methods and data produced. This highlights the limited capacity of social science teams (which are small but growing within environmental organisations) to currently support this increasing interest and to advise on best practice.

Project objectives

To advance the use of the social sciences in addressing environmental challenges, funded through the <u>ACCESS Flexible Fund</u> (ESRC), this project aimed to grow understanding of the social sciences among non-social scientists within environmental organisations, specifically aiming that:

Objective 1. Non-social scientists have a good understanding of what the social sciences are and how they can be used within environmental organisations

Objective 2. Non-social scientists have a good understanding of a range of social science methods and how they might apply them to climate/environmental challenges

Objective 3. Non-social scientists know when and how to employ qualified social scientists to complete research

Project delivery steps

The project was undertaken in collaboration with the Natural Environment Social Research Network (NESRN). The NESRN is a collaboration between environmental organisations such as government departments, arms-length bodies and linked research bodies—in Great Britain (England, Wales and Scotland). The network aims to support each other to further the quality and impact of the social sciences within member organisations. It is primarily for, and run by, practicing social researchers within the organisations. Together we delivered the projects steps outlined in Figure 1.

Step 1: A shared statement of training and resource needs

Scoping research

To develop an understanding of social science training and resource needs within environmental organisations, a scoping exercise was undertaken with both social scientists and non-social scientists. This included: 1) semi-structured focus groups with social scientists, and 2) a survey including quantitative and open-ended questions for nonsocial scientists. More detail on both is provided below. Ethical approval for the research included within this project was obtained from Newcastle University (ref: 34623/2023) and Natural England (ref: 23021).

Method: Focus groups and interview with social scientists

Aims and research questions:

Focus groups and interviews were conducted with social scientists within the NESRN, to explore:

- What does environmental organisations' existing social science support/training offer look like for non-social scientists?
- What more do environmental organisations think they could do to support/train nonsocial scientists to help them better understand/use the social sciences? (i.e., based on organisational baseline knowledge and requests or poor practice/understanding within the organisation)
- What support/training resources would they find most useful and in what format?

Design:

All participants were provided with details of the research beforehand including an information sheet. Participants provided written informed consent to take part. Focus groups and one interview took place over Microsoft Teams and were recorded. A semistructured approach was taken. Sessions started with a short introduction to the project and the aims of research. For focus groups, this was accompanied by some ground rules for participation. Discussion then focused on the three questions above with the emphasis on exploring how social science is used and the current support available to non-social scientists within each participant's organisation. A full set of interview questions can be found in Appendix A.

In addition, a NESRN network meeting in October 2023 was used to start the discussion around the needs of non-social scientists. The open-ended question "What are the methodological training needs for non-social scientists working in your organisation?" was posed to attendees through the online survey software Vevox and in break-out room

discussions. Notes from both Vevox and verbal responses were taken and used to inform the shared statement of training and resource needs.

Recruitment:

Social scientists within environmental organisations were recruited through the NESRN network. NESRN organisational leads were invited to participate in focus groups and invite other social science colleagues.

Method: Survey with non-social scientists

Aims and research questions:

A quantitative survey was undertaken with non-social scientists to explore:

- How confident are non-social scientists in each of the three objectives?
- What social science do non-social scientists already do/take part in within their work?
- What social science training/support needs do non-social scientists have that are currently unmet?
- What formats/types of support/training delivery do non-social scientists want to receive?

Design:

The survey questions were entered into the online survey software Qualtrics (2023) for ease of distribution. The survey was piloted with around six non-social scientists from NESRN member organisations and within Newcastle University. Changes were made to the survey in relation to the removal of forced response options and the wording of questions to improve clarity.

Recruitment:

The final survey was distributed via email to all people on the NESRN members mailing list and ran between the 9th November and 1st December 2023.

Data analysis

Focus groups and interviews with social scientists

All focus groups and interviews were recorded and transcribed verbatim into Microsoft Word. Participant responses were anonymised. Each transcript was labelled as discussion 1, discussion 2 etc., to further aid with anonymisation. Transcripts were then read through by the authors to familiarise themselves with the content. Transcripts were analysed using a thematic analysis within Microsoft Word. This allowed for the identification of similar topics (codes) of discussion across each focus group. These codes were then organised into broader themes. Minutes and online poll responses were analysed through a thematic approach. Notes were first consolidated into one document with responses grouped according to similar points raised. These points were then further reorganised into themes.

Survey with non-social scientists

All survey responses were first checked for completeness and data quality before analysis. Of the 246 responses received, three were removed for not providing consent, and 50 removed for not completing the full survey. The remaining survey responses were summarised using descriptive statistics in SPSS (IBM Corp, 2022). Open-ended responses were thematically analysed again to draw out common themes.

Statement generation

Findings from the interviews and survey were drawn together to identify key areas of social science training and resource needs. These key areas were organised sequentially in the order they would typically be encountered in the research process to create a stepwise approach to the narrative of the final statements. This stepwise approach was then summarised visually in a decision tree to help inform the development of training/resources going forward.

Results: Focus groups and interviews with social scientists

In total three focus groups and one interview were conducted, with a combined total of 17 participants across six environmental organisations. Themes arising from these focus groups/interviews are presented under the main research questions.

What does environmental organisations' existing social science support/training offer look like for non-social scientists?

Social science within organisations

All participants described the social sciences as a small part of the environmental organisations that they worked within. Social science teams within these organisations were in most cases less than 10 people in size, although several had described their teams as having grown in recent years or were looking to expand. Members of social science teams conducted social science as part of independent projects or as part of wider interdisciplinary projects including with non-social science colleagues. They also commissioned and oversaw external organisations who were delivering social science research.

In addition, all organisations were supporting non-social science colleagues to use social science methods. There is also a lack of capacity due to the smaller size of social science teams, meaning engagement with colleagues needing support with social science was often described as 'firefighting' or reactive. Helping non-social science colleagues with

questionnaire design was mentioned most often. Participants also mentioned helping nonsocial science colleagues commission external social science research, including support with research formulation and specification development.

"So we did quite a lot of work on supporting people with developing a spec, formulating a research question with it" (Discussion 2)

Several participants had run training in house or produced resources for non-social science colleagues on topics such as behavioural science, what the social sciences are and how they can support specific areas e.g., understanding farmer identities. It was highlighted that there is not always the capacity to run training internally given the size of the teams.

Some misunderstanding and misuse

Whilst some non-social science colleagues were very engaged with learning social science approaches, more often, requests for social science support were described as being later on or last minute in the research process.

- "I think my understanding is that some projects dip in and out to get some survey advice or as a last-minute box ticking exercise, whereas others will, you know, be really invested in engaging with the social sciences" (Discussion 1)
- "...questionnaires in particular are normally ... you get sent them sort of the day before they're due to send out or be approved by" (Discussion 4)

This may stem from misunderstandings of what the social sciences are. For example, respondents had experienced the social sciences being confused with effective communications or stakeholder engagement.

It was also suggested that some of the misuse of the social sciences may stem from it being viewed as a 'soft skill' by others within the organisation, including natural scientists, policy and management.

"I think that social science is viewed as a soft skill in XXXX. Regardless of almost, regardless of what type of social science [it] is, no matter how varied, I think it is viewed as a soft skill and therefore it's quite often viewed as something that people think they can do without the support of us" (Discussion 1)

The above suggests that what the social sciences can contribute within an organisation is not yet fully realised.

Growing awareness of its benefit

Despite these challenges, participants did talk about a growing awareness within environmental organisations of the need for the social sciences, such as in biodiversity and climate change adaptation:

"So, one is [a] genuine sort of interest, curiosity and wanting to try and do things differently. So, they recognise that you know, as XXXX said, a lot of our environmental evidence or ecological

evidence is pretty, pretty sound, pretty secure. We know what's happening, why it's happening, how it's happening. But nothing's changing, right? And so they recognise that this isn't enough, that this knowledge isn't enough to achieve change" (Discussion 3)

This quote reflects a realisation that understanding people and behaviour is important for environmental change. However, there were concerns that demand for the social sciences often focused on behaviour change and showed a lack of understanding of how the social sciences might inform environmental challenges more broadly, and the range of methods they employ to do this.

"It might be turning into something of a tick box exercise to say that they've thought about behavioural change or behavioural insights" (Discussion 2)

Whilst the growing interest in using the social sciences among non-social scientists was viewed as a good thing, it raised concerns around capacity of social science teams/staff:

"We've raised awareness of the value of social science within the organisation, which has led to increased demand, and then it becomes very challenging because we don't have capacity to meet that demand" (Discussion 2)

"...we just practically can't do that kind of quality assurance to everybody or give advice to everyone" (Discussion 3)

What more do environmental organisations think they could do to support/train non-social scientists to help them better understand/use the social sciences?

Respondents highlighted a range of areas in which they thought their organisations would benefit from increased support and training to better understand and use the social sciences.

Seek to understand level of expertise and pitch appropriately

As a starting point, participants highlighted the need to understand the level of expertise of the non-social scientists they engage with to make sure any training or advice was pitched at the right level, or for the right degree of interest. This could include a mixture of more introductory to more specialised resources based on the time previously spent understanding social science.

"I think, as XXXX says, that there's something about, you know, in some cases, starting from a really low baseline in terms of an understanding of what social sciences can offer and you know what the techniques it uses to do that." (Discussion 2)

"Some people have sort of spent time learning how to do a good question how or a good survey and in their small area of work, you know, they've sort of learnt and then applied it." (Interviewee)

It was also emphasised that ideally any training/resources would be specific to the environmental context rather than being too generic, which '*puts a lot of colleagues off*' (Discussion 2).

Bring the social sciences to life

Participants strongly highlighted that training needed to start with 'bringing the social sciences to life' for those who do not use them, and creating a basic awareness of what the social sciences are and what they can offer. This includes highlighting how '*environmental issues are often social issues*' (Discussion 2).

"I think there's something in there about just a basic primer of, you know, what social sciences can offer and why it matters" (Discussion 2)

"I think would help people have that initial hook or interest into it, rather than just, you know, it's about social science" (Discussion 3)

Suggestions for this included using case study examples to show how different types of data collection have been used, what different types of data can bring and how and why people might approach the same topic/project from different perspectives.

Clearly outline the research process

Following on from raising awareness of the social sciences, it was emphasised that any training needs to cover the full research process.

"But I guess it ties back in with that kind of going back down to basics and really thinking about the research process and the research journey and kind of almost knowing what steps you need to take to go about" (Discussion 4)

Steps within this listed by participants include when ethics is needed and seeking ethical approval, how to frame problems, researcher reflexivity (what/who you are asking/ not asking), clearly writing aims and problem statements, how to decide on the most appropriate method to use, and the specifics of how to use each method, sampling appropriately, GDPR and data management, positionality, power relations and recruitment.

"very little knowledge around the bias that comes if you don't get the right social groups engaged in your research" (Discussion 2)

"I have noticed that there's not much engagement with I guess theory and philosophy and for understandable reasons. But I'd say that often some of the fundamental challenges is around maybe not reflecting on kind of those different science philosophies that can often be quite a big difference between more like than natural sciences and the social sciences." (Discussion 1)

"So positivism, post positivism, because I think that's really important. I think that really does change the way that you understand the way that you look at the world and recognise that other people don't think of it the same way. But I also think positionality, and I think positionality is really like even within the social sciences, we don't consider it enough." (Discussion 1) "We're often brought in only at when they're left with all the answers to the questions and the 3000 free text responses and wanting some help with analysis. So we're thinking about prioritising what do we need to prioritise first in terms of training? What would be most useful? And probably something around survey construction, development analysis and you know, is a survey the right way forward." (Discussion 3)

"We do a lot of surveys as an organisation. Half the time I don't necessarily think we should be doing surveys and [there] would be better methods, but we get asked a lot to provide survey help" (Discussion 3)

The assessment of data quality was also mentioned, both in relation to primary data collection but also reviewing already available evidence.

"...everybody is under this push to be looking at literature, whatever form of literature and evidence they deem to be useful. And I just wonder if some of our basic training would be in supporting people to kind of, I don't know, judge quality a little bit." (Discussion 1)

More in-depth training on specific methods

More specific considerations on surveys were discussed more frequently. This is likely due to these being more commonly used by non-social scientists and as such social scientists were more commonly being consulted for advice on survey design and implementation. They showed more awareness of some of the challenges faced by colleagues using these methods.

"I think there's a kind of an assumption that [it's] always just a questionnaire, it's relatively easy, but then when people actually try to write it, they realize all there's a lot more thought that goes in behind this" (Discussion 4)

More specifics mentioned on these from participants included: ethical principles, question design, how to gather data effectively, and data analysis.

"So you know, maybe that's what we address first, how to do a good questionnaire, how do I analyse your data? Do you actually need to do one and the ethics, ethics and gaining consent?" (Discussion 4)

Participants also raised the need to consider if surveys were either needed at all or the most appropriate in the first instance, with other methods sometimes more appropriate.

Grow awareness of diverse social science methods

As aforementioned, respondents noted that when they are approached to help with social science work by non-social science colleagues, there tends to be a default to using surveys. This is often the case even when these may not be the most appropriate method. This was described in part as being due to a lack of awareness of the range of different social science methods available and what they can offer, and partly because surveys were perceived as being more straightforward to undertake.

"people don't really know the best methods [are] to address their questions" (Discussion 1)

"...there's a lack of appreciation as to what social or how social science tools could be deployed." (Discussion 2)

More qualitative methods were also not always fully appreciated by colleagues, in relation to the processes and data quality considerations involved.

And so as soon as you say qualitative data, but just like, Oh no, you know, we get all the comments, all you work with that wishy washy data, it's like so actually trying to get people to understand that qualitative data is still data." (Discussion 4)

"So I think that there should be something around emphasising the value of a good case study, but to also really shining the light on how that can be very sensitive and it's really important to do it rigorously" (Discussion 1)

Help people to consider their biases and position when approaching social science research

It was highlighted that undertaking more in-depth, or a broader array of social science methods might require a change in 'mindset' or way of thinking for individuals, moving towards different philosophical ways of thinking about research, and more practically thinking about different ways of approaching problems.

- "...and we [non-social scientists] tend to frame problems in terms of information, deficit type problems as opposed to world view and differing world view type problems" (Discussion 2)
- "...that kind of realist perspective is often prioritised. And then I think social science is often almost used as an afterthought to sort of try and confirm that. So it's used in this way that is sort of confirmatory of what's been found" (Discussion 1)

This relates to the need to have a better understanding of social science concepts as well as the different methods within the social sciences, so that they can be used more effectively.

"I think that's a bit of an issue with people, [they] kind of almost break away the methods from the methodology from the kind of thinking that's under [it] and that in some ways it's about values and about how we see the world and how we are actually taking that into account - at least some kind of critical thinking about the fact that often we're coming at it in different ways. And this is partly why qualitative [research] I think is often dismissed as not particularly valuable" (Discussion 1)

"Yeah, but it's just to add those different layers and help people to think differently and understand that systems need to change in order to encourage behaviour, individual behaviour change and lifestyle changes, I think." (Discussion 3)

Provide advice for when and how to commission social science research well

Whilst training for non-social scientists was important, several participants also mentioned the need to ensure the social sciences were understood as a specialist skill that may need specialist support. A balance is therefore needed between getting non-social scientists to the stage where they could confidently and competently do social science research and recognising where they need to bring in social scientist expertise.

"I think it's about balancing that, emphasising that there is skill in this, whilst not saying because their skill in this [and] you're not allowed to use it" (Discussion 1)

"we're sort of trying to open up social science and, uh, train people to do it. But I almost wonder, is that sort of shooting ourselves in the foot? Because we are we are specialists and like can you like we don't just say to people, uh would you like to fly this drone or like do you want to use this monitoring equipment like because that's considered what the scientists do" (Discussion 1)

Training should also cover how to write specifications for projects, given that non-social scientists may end up outsourcing social science work, particularly if there is funding available for projects.

"One other thing I tell people, if it's really important to you, we will help you procure some advice ... So that's another category, how can you help them being able to write decent specifications and projects." (Discussion 2)

Continued professional development for those with social science expertise

It was noted that social science expertise was more of a spectrum, with some people having no experience and other sitting within established social science teams. In between were some staff who had done social science in the past or as a part of their current role, and so there is a need for less introductory and more advanced training resources. These may benefit established social scientists too.

"We might be also customers for this work because we also sometimes need to upskill quite quickly in something we're not very familiar in" (Discussion 2)

What support/training resources would they find most useful and in what format?

The proceeding paragraphs have highlighted several areas of further training/support for non-social scientists. This includes examples of good practice and what has worked, more resources/training specific to environmental organisation topics, training that covers the research process, key considerations within this and the range of methods available. Additional points not covered in the above are presented below.

Not too time consuming

It was noted that training should not be too time-consuming, with most individuals within environmental organisations time pressed which can make training/engaging with good practice difficult.

"...lack of capacity themselves to engage with skills and training with regards to upskilling themselves in terms of social science" (Discussion 2)

Avoid jargon

Any resources also need to try and avoid a lot of the social science jargon that is often used between within and across different disciplines of social science, and which can make accessibility for non-social scientists, and even social scientists from different disciplines, difficult. This was framed as trying to avoid scaring people off with too much jargon.

"But I think it's on us to convey those concepts in a really relatable, plain English um way" (Discussion 1)

"I would also wholly support not using jargon. I um, yeah. I totally agree with thinking about the way we use language" (Discussion 1)

Offer of personalised support

It was also emphasised that sometimes more individual, personalised advice is preferred.

"We tried to signpost to other resources, but quite often our colleagues actually want individual advice and not generic signposting to generic guidance on how to do a survey. They want to work individually with us." (Discussion 2)

Results: Survey with non-social scientists

Participant overview

In total 193 usable responses were received across 13 environmental organisations. Summary statistics are in Table 1. Characteristics of respondents were:

- Most participants were highly educated with 71.0% having a MSc or PhD.
- Around a third (29.5%) of respondents had a social science qualification from a range of different degree programmes. A further 22.8% reported that social science had featured in modules within another qualification they had completed.
- Only 14.5% had received non-qualification based social science training. For those that provided further details (n=26), this was received in house and within previous job roles e.g., through academia, charitable organisations, the Social Research Association, informal online training, or through ongoing education.

Given that almost a third of respondents had a social science qualification it was agreed to split the sample into social scientists and non-social scientists. This facilitated the analysis of survey findings from those with non-social science roles only as per the survey aims (see Methods). Respondents were classified as non-social scientists based on their highest level of social science qualification and job role. Those who indicated they had a qualification in social science were assigned as social scientists. For those who were unsure or had some experience in social science, their self-described job role was checked, and their assignment based on this. For example, economists were assigned as social scientists, along with those who had a job role with social science in the title. This left 128 respondents classified as non-social scientists to be analysed.

Of the non-social scientists only 7 had received non-qualification based social science training (Table 2).

Table 1: Participant overview (n=193)

		Frequency	Percent
Education	A-level	4	2.1
	Some university credits	5	2.6
	Trade/technical/vocational training	1	0.5
	Bachelor's degree	41	21.2
	Master's degree	84	43.5
	Professional degree	5	2.6
	Doctorate degree	53	27.5
Organisation	Centre for Ecology and Hydrology	3	1.6
	Centre for Environment, Fisheries and	9	4.7
	Aquaculture Science	9	4.7
	Department for Environment, Food and	72	37.3
	Rural Affairs	12	37.3
	Environment Agency	9	4.7
	Forest Research	8	4.1
	Marine Management Organisation	2	1
	Met Office	25	13
	Natural England	11	5.7
	Natural Resources Wales	16	8.3
	NatureScot	14	7.3
	Office of Environmental Protection	15	7.8
	Welsh Government	3	1.6
	Joint Nature Conservation Committee	6	3.1
Highest social science	No social science qualifications	85	44
qualification attained	Some social science experience within	4.4	00.0
	another qualification	44	22.8
	A social science qualification	57	29.5
	Not sure	7	3.6
Have you received any	Yes	28	14.5
social science training?	No	80	41.5
	No response	90	44.0

Table 2: Non-social scientist training in the social sciences (n=128)

		Frequency	Percent
Have you received any social	Yes	7	5.5
science training?	No	36	28.1
	No response	85	66.4
Highest social science	No social science qualifications	85	66.4
qualification attained	Some social science experience within		
	another qualification	40	31.3
	Not sure	3	2.3

How confident are non-social scientists in each of the three objectives?

Table 3 summarises participants responses to 11 statements about their confidence in using the social sciences. Participants were most confident about 'knowing what the social sciences are' (70.3% confident or very confident) and 'knowing how the social sciences can help address environmental challenges' (59.3% confident or very confident). Participants were less confident in knowing how to identify the most appropriate method to use with only 8 respondents (6.3%) indicating they were confident in doing this. They were also less confident in commissioning social science research, using a range of different social science methods, assessing the quality of social science data and seeking ethical approval. Participants were also less confident in qualitative compared to quantitative analysis.

What social science do non-social scientists already do/take part in within their work?

Participants have had more experience in completing for themselves, surveys and literature reviews (Table 4), with just over half of respondents having used them themselves. Participants had used methods at the more qualitative end of the methods spectrum the least, in particular observational research and creative methods (12.5% and 11.7% respectively). Over half (64.8%) of participants had also not acquired ethical approval for a project which may explain their lack of confidence in relation to this. Whilst some participants chose the option 'other', few details were provided for what these methods were, other than evaluating research project applications, and hence exposure to different methods.

Table 5 summarises participants confidence in using different research methods. Participants were most confident in using literature reviews (49.2% confident or very confident), surveys (43.7% confident or very confident), and individual interviews (40.7% confident or very confident). They were least confident in creative methods (69.6% unconfident or very unconfident), observational research (66.7% unconfident or very unconfident).

It should be noted that for all methods over a fifth of participants responded, 'neither unconfident nor confident'.

	Very Unconfident	Unconfident	Neither unconfident not confident	Confident	Very confident
Knowing what the social sciences are	2 (1.6)	7 (5.5)	29 (22.7)	73 (57.0)	17 (13.3)
Knowing how the social sciences can help address environmental challenges	3 (2.3)	18 (14.1)	31 (24.2)	62 (48.4)	14 (10.9)
Knowing how to get social science support from within your organisation	15 (11.7)	28 (21.9)	20 (15.6)	49 (38.3)	16 (12.5)
Knowing how to commission external social science support	40 (31.3)	50 (39.1)	21 (16.4)	15 (11.7)	2 (1.6)
Knowing how to identify the most appropriate social science method(s) to use for your research question	31 (24.2)	51 (39.8)	38 (29.7)	8 (6.3)	0 (0.0)
Knowing what ethical considerations/approvals you need to think about when doing social science research	29 (22.7)	37 (28.9)	39 (30.5)	21 (16.4)	2 (1.6)
Collecting data using different social science methods	22 (17.2)	53 (41.4)	35 (27.3)	17 (13.3)	1 (0.8)
Analysing and interpreting quantitative social science data (i.e., numbers-based surveys or data)	9 (7.0)	31 (24.2)	25 (19.5)	46 (35.9)	17 (13.3)
Analysing and interpreting qualitative social science data (i.e., interviews and open-ended text responses)	18 (14.1)	42 (32.8)	33 (25.8)	29 (22.7)	6 (4.7)
Knowing how to use existing evidence to ensure your work is evidence led	5 (3.9)	21 (16.4)	30 (23.4)	61 (47.7)	11 (8.6)
Knowing how to assess the quality of social science research	18 (14.1)	55 (43.0)	36 (28.1)	18 (14.1)	1 (0.8)

 Table 3: Non-social scientists confidence in relation to different elements of social science as n (%) (n=128)

Key

50-59%	40-49%	30-39%	20-29%

able 4. If and now non solutions have used anterent solution research methods						(
	I have used myself		I have commissioned		I have advised on		No, I have not used		Unsure	
	n	%	n	%	n	%	n	%	n	%
Surveys with people	67	52.3	28	21.9	28	21.9	30	23.4	0	0.0
One-to-one interviews	55	43.0	21	16.4	13	10.2	52	40.6	0	0.0
Group interviews/focus groups	48	37.5	21	16.4	20	15.6	52	40.6	1	0.8
Observational research with people	16	12.5	8	6.3	7	5.5	93	72.7	6	4.7
Creative methods with people	15	11.7	6	4.7	7	5.5	92	71.9	6	4.7
Literature reviews	68	53.1	21	16.4	9	7.0	38	29.7	6	4.7
Acquiring ethics approval for a project	24	18.8	7	5.5	6	4.7	83	64.8	8	6.3
Other (please specify)	67	52.3	28	21.9	28	21.9	30	23.4	0	0.0

Table 4: If and how non-social scientists have used different social science research methods (n=128)

Key

ey						
	70-79	60-69	50-59	40-49	30-39	20-29

Table 5: Non-social scientists' confidence in using different social science methods n (%) (n=128)

	Very Unconfident	Unconfident	Neither unconfident not confident	Confident	Very confident	No response
Surveys with people	9 (7.0)	31 (24.2)	32 (25.0)	46 (35.9)	10 (7.8)	0 (0.0)
One-to-one interviews	13 (10.2)	30 (23.4)	33 (25.8)	40 (31.3)	12 (9.4)	0 (0.0)
Group interviews/focus groups	13 (10.2)	38 (29.7)	35 (27.3)	35 (27.3)	7 (5.5)	0 (0.0)
Observational research with people	32 (25.4)	52 (41.3)	28 (22.2)	12 (9.5)	2 (1.6)	2 (1.6)
Creative methods with people	40 (32.0)	47 (37.6)	28 (22.4)	10 (8.0)	0 (0.0)	3 (2.3)
Literature reviews	7 (5.5)	26 (20.3)	32 (25.0)	43 (33.6)	20 (15.6)	0 (0.0)
Acquiring ethics approval for a project	37 (29.1)	47 (37)	29 (22.8)	12 (9.4)	2 (1.6)	1 (0.8)

50-59%	40-49%	30-39%	20-29%	0-19%

Key

What formats/types of support/training delivery do non-social scientists want to receive?

Participants were asked to rank the types of training they were most likely to engage with. From Table 6 it is clear that participants were most likely to engage with live online training (90% ranking these first or second) followed by in person training sessions. Online written resources were the least likely to be engaged with (nearly half of people ranking these as their last choice).

	1st	2nd	3rd	4th	5th	Not ranked
Online/in person drop-						
in advice sessions	10 (7.8)	24 (18.8)	31 (24.2)	34 (26.6)	29 (22.7)	0 (0.0)
Live online training	42 (32.8)	48 (37.5)	21 (16.4)	14 (10.9)	3 (2.3)	0 (0.0)
Pre-recorded online						
training	17 (13.3)	17 (13.3)	32 (25.0)	41 (32.0)	20 (15.6)	1 (0.8)
Online written						
resources	14 (10.9)	19 (14.8)	25 (19.5)	22 (17.2)	47 (36.7)	1 (0.8)
In person training						
sessions	45 (35.2)	16 (12.5)	18 (14.1)	17 (13.3)	28 (21.9)	1 (0.8)

Key

у					
	50-59%	40-49%	30-39%	20-29%	0-19%

Participants were asked to share any thoughts on previous social science training they had received, what they found useful and what they did not. Of the 87 responses from participants, 43 had not received further training, or commented that training was a long time ago.

Participants had received training from a variety of methods and approaches. Specific methods/topics mentioned included how to avoid bias, behavioural science and literature reviews. One participant mentioned that it was helpful to understand why we need the social sciences and the range of methods available, and another the usefulness of understanding the context to help set the scene for social science research. Only one response mentioned that they did not see the value of the social sciences.

Ways of learning that were talked about positively included action learning sets, going through the full process yourself (i.e., applied learning), going through good/bad examples, more interactive sessions, and learning from case studies. Several participants mentioned a preference for shorter materials, and training that was not too generic. Others also mentioned opportunities to embed learning whilst training, or the use of buddying or peer learning for support on the job. One participant mentioned they found going to the social science team for help useful.

Previous sources of training included the Office for National Statistics, university course as part of previous degree programmes, seminars from social scientists or being self-taught.

Online learning had been undertaken by a range of participants. One participant flagged that they did not like e-learning and another highlighted that online training can pose challenges for more neurodiverse individuals.

What social science training/support needs do non-social scientists have that are currently unmet?

Participants were asked to rate their agreement with what they would like to receive further training on (Table 7). Participants predominantly agreed that they would like training on all the points listed other than 'knowing what the social sciences are'. Participants would particularly like training on using different methods, including how to identify the most appropriate method for your question.

Participants were also asked to expand on the set training needs (in Table 7) and detail other social science information/training that they thought might be useful. In total, 39 responses were given. Comments related to:

- Methods: using the right method for the purpose, survey design including how to best set up surveys to ensure particular voices are not lost, co-design and evaluation
- Relevance: how to ensure relevance to their job roles and policy
- Examples: of good practice, case studies of how they have been used, more applied training to the context they're working in, and how to have more interdisciplinary projects
- Support: where they can get support and advice on specific projects within their organisation, and advice in relation to specific projects
- Practical considerations: budgets, what social science data is already available

Several participants used this to re-emphasise that they would like the training on the topics included within this question.

Table 7: Participants level of agreement with the different types of training they would like to receive n (%) (n=128)

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Knowing what the social sciences are	6 (4.7)	31 (24.2)	35 (27.3)	46 (35.9)	10 (7.8)
Knowing how the social sciences can help address environmental challenges	5 (3.9)	11 (8.6)	23 (18.0)	59 (46.1)	30 (23.4)
Knowing how to get social science support from within your organisation	3 (2.3)	12 (9.4)	26 (20.3)	58 (45.3)	29 (22.7)
Knowing how to commission external social science support	3 (2.3)	20 (15.6)	28 (21.9)	52 (40.6)	25 (19.5)
Knowing how to identify the most appropriate social science method(s) to use for your research question	3 (2.3)	11 (8.6)	16 (12.5)	59 (46.1)	39 (30.5)
Knowing what ethical considerations/approvals you need to think about when doing social science research	3 (2.3)	10 (7.8)	19 (14.8)	64 (50.0)	32 (25.0)
Collecting data using different social science methods	3 (2.3)	5 (3.9)	20 (15.6)	67 (52.3)	33 (25.8)
Analysing and interpreting quantitative social science data (i.e., numbers-based surveys or data)	4 (3.1)	17 (13.3)	34 (26.6)	56 (43.8)	17 (13.3)
Analysing and interpreting qualitative social science data (i.e., interviews and open-ended text responses)	3 (2.3)	6 (4.7)	27 (21.1)	67 (52.3)	25 (19.5)
Knowing how to use existing evidence to ensure your work is evidence led	4 (3.1)	9 (7.0)	22 (17.2)	72 (56.3)	21 (16.4)
Knowing how to assess the quality of social science research	3 (2.3)	6 (4.7)	22 (17.2)	66 (51.6)	31 (24.2)

Key

50-59%	40-49%	30-39%	20-29%

Outcomes of Step 1: A shared statement of training and resource needs

The social scientists who participated within this research highlighted growth and an increasing demand and interest in the social sciences within their organisations, but also some misuse and misunderstanding around what the social sciences are and how to effectively use them in their own work. This is reflected in the interest shown in further training by non-social scientists in the survey. Based on the findings, the following recommendations for future training and resource needs to support non-social scientists to use and benefit from the social sciences are made.

Non-social scientists asked for support in the following areas:

- Before looking at 'doing research', resources need to **demonstrate the value** of the social sciences and what they can offer through effective examples that bring the social sciences to life.
- Resources need to clearly outline and support non-social scientists through **the research process**, from question framing and choosing the most appropriate research method, to the writing up and understanding of results.
- More in-depth resources on specific areas would be beneficial, and help to boost confidence, in areas such as:
 - o Surveys, including question design and sampling
 - \circ $\;$ Qualitative and more creative research methods $\;$
 - How to gather data effectively
 - o Data analysis, particularly for qualitative data
 - o Considering biases and researcher positionality
 - Social science data quality considerations
- Resources should facilitate researchers in identifying the range of social science methods available, and which methods might be best suited to their research aims.
- A core part of resources is guidance on **ethical principles**. This includes both key ethical considerations for social science research and individual organisational approval processes and procedures.
- Resources also needs to cover commissioning social science research.

In terms of the preferred format/type of support, non-social scientists told us that:

- Live (online or in-person) training was preferred by non-social scientist. Whilst providing live training is beyond the remit of this project, it is worth noting that there would appear to be demand for this going forward.
- Based on what is feasible with the project, video-based or more interactive training resources should be used where possible, alongside case studies from within environmental science/ environmental organisations.
- Introductory and more advanced resources may be appropriate as people have a range of formal and informal social science experience and continued professional development needs.
- The pitch of resources should be tailored and ideally focused on examples/contexts relevant to environmental organisations to prevent materials from being too generic.
- Ideally, resources should facilitate researchers to move step by step through the process, or give applied examples as an opportunity to practice what they are learning.
- Resources should **avoid jargon and consider time constraints** due to the often limited capacity of staff for further training.
- More individual advice, which ensures individuals have help tailored to their needs, was mentioned. Signposting to research teams within different organisations would therefore be useful – both for individual project consultations and more broadly for ethical procedures and processes.

Step 2: A guide to existing training resources

Compiling the guide

The aim of Step 2 was to bring together a range of different social science resources, informed by the statement of need, to make them accessible for non-social scientists. This would be an offline (document-based) guide, so that it is accessible to multiple organisations. The guide however would be intended as a template and tool for use by these organisations in whatever way fits their organisational need. For example, Natural England intend to use the guide as a template for online resources pages, hosted on SharePoint/intranet to which they will add their organisational-specific resources.

The guide was compiled in four main stages:

Providing a framework for the guide

From the focus groups and survey in Step 1 it was clear that this needed to cover the whole social science research process, have examples specific to work likely to be undertaken within environmental organisations and include a range of different resource mediums. It was suggested that this take the form of a flow diagram of the key stages that should be considered when engaging with social science research. To provide a framework and structure for the guide, an overview of the social science research process was outlined (Figure 2). This was based on findings from Step 1, and discussions amongst the research team members. Figure 2 was run past project partners to collect feedback on any missing areas, as well as identify any social science resources they thought might be useful for any of the included steps.

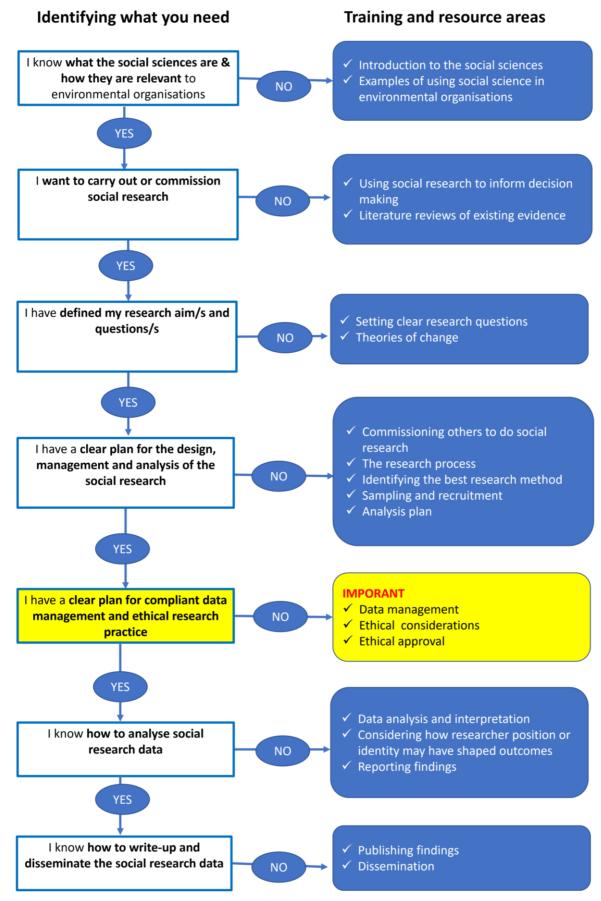


Figure 2: The initial overview of the social science research process

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Identifying existing resources

Several different search processes were used to identify relevant resources or training materials to populate the different stages of the research process in Figure 1.

- Firstly, already known resources were incorporated into the different steps. This included material already utilised within teaching and research activities, as well as any existing Natural England specific resources that were already available.
- Secondly, the websites of well-known research organisations were searched for relevant material. These included National Centre for Research Methods and the Social Research Association.
- Finally, Google was then searched for additional resources using a range of different key words related to the topics included in Figure 1. Searches focused on both written and video format resources.

Results identified in the final step were screened based on how accessible they would be for a non-social science audience, and how credible the source of the resources were. Only resources from research organisations (e.g., UKRI, ESRC, universities), key authors in the field or short academic publications (e.g., journal articles, websites) were included. Resources with an environmental social science focus were prioritised where possible (as opposed to general social science).

This search took place as an iterative process with lists of resources reviewed by other team members, with resultant discussion highlighting gaps in materials identified, and commenting on the appropriateness of identified material for the intended target users of the guide.

Providing context to resources

Once all the resources had been compiled, text was developed for each stage of the process. This involved adding accompanying text to provide an introductory level overview of the different training and resource areas and where possible using an engaging introductory video to the topic. These aimed to provide context to the training resources identified. Again, this was an iterative process as draft text was reviewed for comment amongst the team. This step also involved a simplification of the research process to streamline it.

Developing an online version of the guide

The final step in the creation of the training resources was the transfer of the guide to an online SharePoint site for interactive piloting (as would be its intended use). This step also involved creative design work to ensure that the text and linked materials were presented in an attractive, easy to read manner. For example, all resources were linked to from a main home page (entitled Social Science Resources), shown in Figure 3.

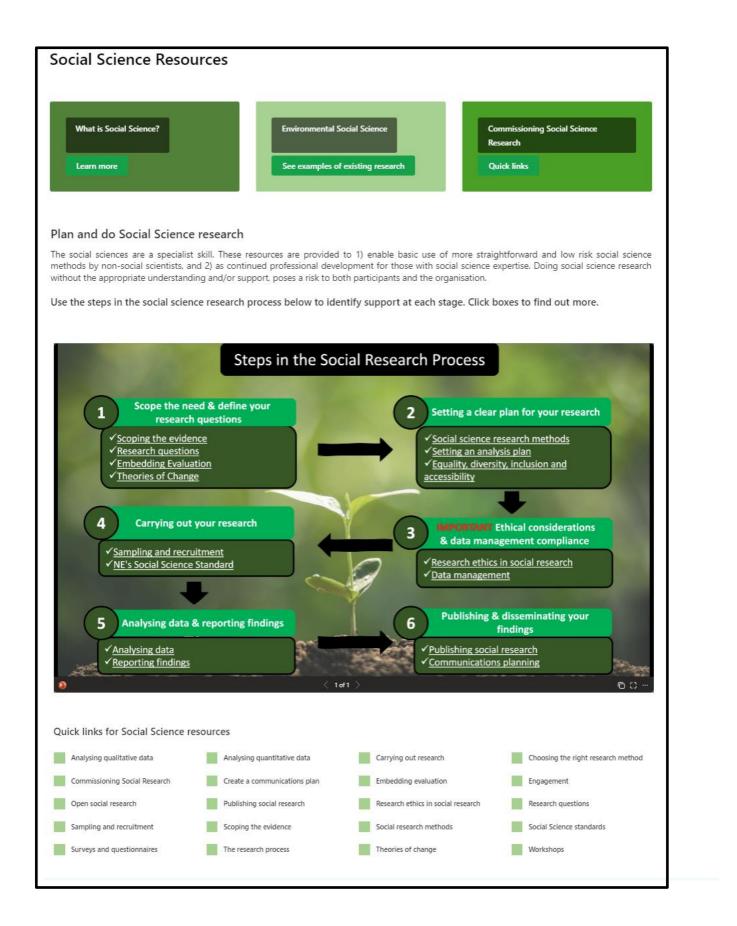


Figure 3: Front page of the resources guide piloted on Natural England's SharePoint site

Piloting the resource guide

Methods

The pilot sought to **see if the guide could help achieve objectives 1-3 of the project**, but also acted as an opportunity to gain constructive feedback for the further development of the guide from potential users. The pilot included:

- 1. Two rounds of user testing with non-social scientists in NESRN member organisations, including feedback from within workshops and a pre-post survey.
- 2. Interviews with social scientists within NESRN member organisations.

Piloting the guide with non-social scientists

The guide was piloted in two phases with non-social scientists. This was predominantly due to participant availability given the timing of the pilot at the end of the financial year. It did, however, provide the opportunity for changes to be reviewed by second phase participants. Both phases followed the same process outline below, with phase 1 ran from - 8/04/2024 and phase 2 ran from 12/04/24 - 30/05/24.

The piloting process was as follows:

- Introductory workshop and pre-survey: A semi-structured approach was taken to this meeting, with the session starting with a short introduction to the project and it's aims, and an introduction and tour of the online social science resources. Within the session, participants completed a short pre-pilot survey (Appendix B) that assessed their level of confidence in different aspects of social science, previous social science qualifications and if/how they engage with social science in their research.
- **Using the resources:** Following the kick-off meeting, participants were provided with access to the online resources and asked to take time over a three-week period to access and engage with the resources.
- Feedback workshop and post-survey: A workshop was then held to capture feedback on participants experiences of the guide. This was recorded to enable all feedback to be captured. The workshop again followed a semi-structured approach, beginning with participants experiences of using the training resources, including the SharePoint site text and linked resources, aspects that were missing from the guide and future training resources. Participants also completed a post-pilot survey during this session (Appendix C) to reassess their confidence in different social science aspects, explore their level of use of the guide and answer several statements in relation to their use of the guide. An open-ended question was also included for any feedback not given in the workshop.

Non-social scientists were recruited through the NESRN leads disseminating a short recruitment text to colleagues within their organisations. Leads typically ran an open call for participants, although some leads nominated specific individuals from within their organisations to take part.

Interviews with social scientists

The guide was made available to lead social scientists from within NESRN. They were then invited to take part in a short follow up interview to capture their feedback and to assess how they think the guide could be utilised within their own organisation. These sessions took place on Microsoft Teams and followed a semi-structured approach.

Data analysis

Workshop and interviews

The pre-pilot kick-off meeting was not recorded but notes were taken throughout to help tailor questions in the post-pilot workshop. The post pilot workshops were recorded and transcribed verbatim into Microsoft Word. Participant responses were anonymised with each participant given a numeric identifier. Each transcript was labelled as workshop 1, workshop 2, to further aid with anonymisation. Transcripts were then read through by the researcher to familiarise themselves with the content before thematic analysis was undertaken to identify recurrent topics. A deductive approach was taken to the analysis focusing on four themes: positive feedback, areas for improvement, missing content, future considerations.

Interviews with NESRN leads were not recorded but notes were taken throughout with feedback grouped thematically on the same four themes as from the pilot workshop.

Findings from phase 1 of the pilot were used to update the SharePoint site before phase 2 of the pilot, with findings from Phase 2 used to update the materials and create the final offline version of the guide.

Surveys

Data from the pre and post pilot surveys were exported from Qualtrics (2023) in Microsoft Excel. Descriptive characteristics were generated for each survey question. Responses to the open-ended questions were analysed for key themes. Due to the small sample size of pilot participants, comparison between before and after responses was represented visually using line graphs.

Results

Interviews with social scientists

In total five of the six NESRN leads gave feedback on the guide. Three leads had gone through the online resources prior to the interview, whereas two leads had not had time to do so. For these two leads the resources were run through during the interview using the 'Share screen' function in Microsoft Teams.

Positive feedback

Overall, all leads were positive about the guide. They appreciated the mixed mediums of content included and that the guide ensured that there was a range of resources together, which was thought to save time searching topics themselves. They liked the visual nature of the guide and the mix of text and images and thought the guide would be helpful to members of their respective organisations. One NESRN lead flagged that resources could be particularly useful for early career researchers or those on graduate schemes.

Areas for improvement

Areas of improvement for the guide focused on small tweaks within the main 'Social science resources' page. Whilst the site was thought to be well organised, participants suggested the quick links on this page could be restructured to make it easier to identify topics quickly. This could be done by either grouping topics by theme or presenting them alphabetically. One lead also suggested making 'choosing the right method' much easier to identify so having its own quick link, given they can see this being a topic users might want to revisit.

There was also discussion about 'pre-loading' and adding more information to step 1 of Figure 2 to really emphasise that there are several things that need to be considered upfront in the social research process to ensure that they are accounted for in research questions and design planning. Theories of change was one specific example given.

Whilst the resources were viewed as well-presented and laid out, one lead did mention that there was a lot of text on some of the pages that could be cut down to prioritise the most important information. This could also include ensuring we are highlighting the key sources of information from the links provided.

Lastly, for the workshops it was highlighted that there could be more information on how to analyse the data generated from workshops when used as a research method, especially considering the large volumes of data generated using this approach.

Missing content

Whilst the guide was thought to be comprehensive there were suggested additional topics for consideration as listed below:

- Accessibility: ensuring all materials are produced with accessibility requirements in mind.
- Equality, diversity and inclusion (EDI): considerations of EDI throughout the research process.
- Issue framing: the importance of considering how you frame research questions.
- Mixed methods: an acknowledgement that often research requires more than one approach to answer research questions.
- Peer review: of research plans and outputs.
- Policy evaluation: as an additional method to include.
- Targeted communications: ensuring you have tailored communications plans, considered at the beginning of the research process.

- Writing for impact: how to write up your findings to generate the most impact.
- Working with a social scientist: whilst commissioning research is covered it was suggested that the pages could highlight that users could consider working with social scientists, particularly for more complex questions.

As well as suggestions for specific content to add, it was considered that the pages really need to emphasise that social science is important and why we should listen to different stakeholders. This is included on the 'Environmental social science' page but could possibly be brought out more throughout.

It was also noted that whilst the resources are aimed at encouraging users to engage with the social science research process themselves, somewhere on the resources it should emphasise to consult a qualified social scientist if you're thinking of undertaking this kind of research.

Future considerations

The legacy of the site was discussed, with two leads noting that there was no capacity internally within their organisations to replicate a similar site. Having an external organisation host this was therefore preferred to ensure access and would also make these resources useful for other organisations outside, especially smaller organisations. This would just need the consideration of how to signpost that individuals should check their organisation-specific procedures and policies for different parts of the process e.g., ethics.

As well as hosting, there was also consideration of how to keep these resources up to date, check the links still work etc. This could be done by the external host organisation (if this occurs), or it was suggested that it could be co-funded by NESRN organisations. Part of keeping the site up to date could also include ensuring the compiled list of environmental social science specific resources and examples is updated too. This was noted as being particularly relevant given the growing interest in the field.

As well as the legacy of the site additional suggestions were made for content outside of suggested missing pages. This included a downloadable checklist of things to consider before you start the research process, accompanied by why it is important to consider these beforehand. It was also noted that the site should more generally emphasise the importance of recognising the rigour involved in each step of the social research process, to further emphasise each phase should be well thought through. Finally, it was suggested that there could also be a more general list of useful organisations to contact and wider networks for those interested in social science research included on the site.

Promotion of the site was also discussed. This included raising awareness of the resources amongst colleagues and promoting through Government Social Research.

Piloting with non-social scientists

Seven participants took part in the first phase of the pilot and eight in the second, Table 8 gives an overview of these 15 participants. Eleven participants took part in feedback workshops, with two participants taking part in separate interviews. The final two participants completed the survey only. A summary of the feedback is provided under the four headings below.

		Frequency	Percentage
Which	Environment Agency	3	20.0%
organisation	Forest Research	2	13.3%
do you work for?	Marine Management Organisation	3	20.0%
	Natural England	3	20.0%
	NatureScot	3	20.0%
	Newcastle University	1	6.7%
Highest level	No social science qualifications	6	40%
of social science qualification	Some social science experience within another qualification	4	26.7%
4	A social science qualification	5	33.3%

Table 8:	Pilot	participant	characteristics	(n=15)
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Participants used the resources for between 30 minutes to 3 hours, averaging just over an hour (95 minutes). Participants had mixed confidence in the different statements concerning social science research, being more confident in knowing what the social sciences are and how the social sciences can address environmental challenges. Most participants also rated themselves as having good confidence in the analysis of both qualitative and quantitative research methods, although there was a higher confidence for quantitative research.

A visual representation of participants' mean change in confidence pre- to post-pilot is shown in Figure 4. Although due to the small sample size we only suggest movement in a positive direction. Responses suggest increased confidence in all aspects assessed following use of the resources. There was a notable increase in reported confidence with: knowing how to commission external social science research, knowing what ethical considerations/approvals you need to think about when doing social science research, and knowing how to identify the most appropriate social science method(s) to use for your research question. Table 9 also highlights that the guide has helped to improve their confidence in social science methods, understand how the social sciences can help to address environmental/climate challenges and know when and how to employ qualified social sciences.

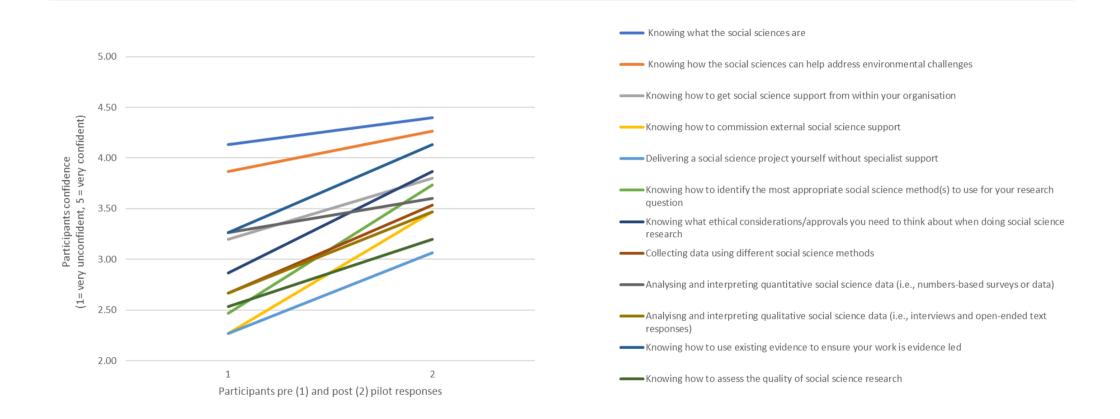


Figure 4: Participants' mean change in confidence pre- and post-pilot in selected social science aspects (n=15)

Table 9: Participants level of agreement with different statements

		ongly gree	Disa	agree		disagree agree	Ag	ree	Strong	ly agree
I will use the resources again in the future	1	6.67%	0	0.00%	0	0.00%	5	33.33%	9	60.00%
I would recommend the resources to colleagues	1	6.67%	0	0.00%	0	0.00%	5	33.33%	9	60.00%
I have a better understanding of the social sciences	1	6.67%	0	0.00%	0	0.00%	8	53.33%	6	40.00%
I would be more confident in using social science methods	1	6.67%	0	0.00%	0	0.00%	11	73.33%	3	20.00%
I better understand how the social sciences can help address environmental/climate challenges	1	6.67%	0	0.00%	2	13.33%	7	46.67%	5	33.33%
I know when and how to employ qualified social scientists	0	0.00%	2	13.33%	4	26.67%	8	53.33%	1	6.67%

Key						
	20-29%	30-39%	40-49%	50-59%	60-69%	>70%

Positive feedback

Overall participants were extremely positive about the guide and found it useful. They could see them using it themselves, including for specific projects, checking commissioning briefs and referring it to colleagues. This was reflected in the post-pilot survey where all participants agreed they would use the responses again and would recommend them to colleagues (Table 9).

Having all the information in once place through the SharePoint site was thought to be really useful. The range of different content included meant that participants could 'dip in and out of it quite easily'. The layout also meant it was easy to navigate between different pages and follow the social science research process. This included the visual elements.

"I think the diagram does a really good job of kind of showing how they fit together" (Participant 2)

They particularly liked the video-based resources, although the longer videos, and the ones featuring interviews were less preferred. This was in part, due to individuals time constraints.

"I think that's one of the issues with online training that its self-paced... if you're going to a course you have to turn up, it's in your diary, but it's much harder to block out time even with the best will in the world [for online]." (Participant 10)

Participants also liked that there were example reports from across the different organisations showing how social science had been used within these organisations.

Several participants mentioned that they could see themselves referring colleagues to the pages, either for specific information or more broadly to persuade them as to the benefits of or why to use social science.

"Obviously bringing loads of value as well and sometimes it's really useful to be able to point towards what has loads of information about all of the various ways ... it's really useful compiled in one place." (Participant 2)

Natural England based participants also found it useful to have the organisational overview included within the site too as they could see who and what was involved in social science within the organisation.

Areas for improvement

Several suggestions for improving the SharePoint site were given. These related to the layout of content, types of resources, signposting and language.

As with the social scientist feedback, it was suggested that the layout of the 'quick links' on the front page could be improved, also the side navigation system to mirror the order of the research process, and some participants highlighted that some pages were quite busy. The types and number of resources were discussed by all participants. Whilst all participants preferred the video links, the longer resources were less preferred for a range of reasons including accessibility and knowing what to take away from them.

"... I think maybe if there was more summary information generated, then like just linking to large reports or large guidance documents, because some of the guidance documents are 70 pages and it just seems like a lot to take in' (Participant 13)

Summaries of longer resources were suggested as a way of making them easier for users to identify whether they would be relevant to go onto read in full. Several participants also flagged this would be helpful for all resources as you could find out more about what they were about before you clicked on them. Summaries were also viewed as an opportunity to tie more generic social science resources into environmental social science more explicitly.

For some pages, the amount of content and multiple linked resources were thought to make these pages less user friendly compared to elsewhere. This included reasons such as lots of text to go through, and not knowing which resources they should start with if multiple are presented.

"... [multiple] resources around the same thing, and while they might not necessarily say different things like contradict each other, I wasn't quite sure which one to look at like, which would be best to look at." (Participant 15)

Pages that were thought to be well laid out included the EDI page, which had several useful links (although many of these were Natural England specific) and had a clear plain language summary. Other pages were thought to either repeat themselves or replicate content that had been included elsewhere on the site.

"...Information was repeated and replicated, and I thought it could probably be streamlined a bit ... It's a lot of info, so one of the examples [of this] was embedding evaluation and the theory of change pages. There's some overlap there." (Participant 11)

One participant flagged that the dates on some of the linked guidance documents were several years old and that some text to highlight that they are still relevant would be helpful.

Another participant highlighted that some additional steps in places could be useful for those really not familiar with the research. The example below was given for commissioning research.

"I know the questions I'm wanting answered, but then the linkage between what are the questions I'm after, and how that's done [in relation to commissioning research]? There was just something not quite there as a generalist manager." (Participant 9).

More generally, it thought that an introduction to the site, what it includes and how it was put together would be useful for signposting as to what to expect with the resources and how much content there is.

One participant suggested restructuring certain pages into two levels, an introduction/overview level containing more basic information and a second level containing more depth information. This would help to signpost to different resources and might also help with the time constraints that people face.

Two participants mentioned that the language used throughout some of the slides could be considered quite discipline specific, with those who are not specialists using potentially different terms. For example, 'evidence synthesis' is a phrase that is increasingly being used and that changing the name of this page could be useful to help people identify the relevant content.

"So, some of the language is a slightly different language than what we would use when we've been dealing with sort of work that we've been doing." (Participant 9)

Missing content

Several suggestions were made for additional content for the SharePoint site although most suggestions were made by just one or two participants. Some suggestions were:

- More information on how social science differs compared to natural science approaches, essentially "what's different about doing social research?" (Participant 12). This was particularly the case for certain sections, such as 'scoping the evidence' and 'research questions' where the guidance given was viewed as being the same as in many natural science disciplines.
- More information on knowledge exchange and incorporating end-user into your research design would be useful, particularly thinking about this upfront.
- Information on budgeting for different types of social science research.
- Information on how to access funding for social science research or how to write social science funding proposals would be useful.
- Guidance on communicating difficult or challenging results would be useful, as this could be difficult to do.
- An FAQs style help page.
- A checklist to see if you've covered everything off in relation to the process.
- Contact information for ethical queries within participants own organisations, as they could see this arising for particular types of research.
- Information on more inclusive practices of working with different audiences and how these tie in with methodological practicalities and choosing the right method.
- More guidance on different types of communications and ensuring that they are accessible for the audiences that you want to reach was also thought to be helpful, especially for reaching end-users. This included different formats of outputs such as infographics.
- Examples of how more creative methods, such as arts-based research, have been applied within environmental/government organisations to make them more tenable.
- A page listing additional newsletters or useful organisations on social science could be useful for people to follow.

Participants also wondered if further details as to whether there is consensus or disagreement within social science approaches would be useful.

"I wonder with some of these things if there is an element of like people don't always agree on stuff and maybe for a non-social scientist that would be quite good to know about. You know, if there are some areas where within social science or the social research community where there are still things that people don't agree on and that's OK and you might read conflicting bits of information... And I think but just caveating some things with that and being upfront would be helpful because then we're like, oh OK, it's not necessarily that either these things are wrong, it's just different approaches and people don't agree." (Participant 15)

One participant mentioned that it could be worth emphasising on the pages that the different steps in the process might take time or need further training and are not simple tick box exercises.

"[The way] it's presented, as like oh, you can just do social science here, just follow these steps, it's fine. I don't know if it needs to come across that like some of them [steps] might need more training" (Participant 2)

All participants thought the inclusion of case studies would be helpful.

"Just to sort of help you see how someone who hasn't got social background has used [social science]... just, you know, a sort of application of it would, might, might be helpful" (Participant 14)

The case studies would include more of the process of doing social science rather that the outputs as the current reports focused on. These case studies could also include more reflective content on using social science methods or on interdisciplinary collaboration, such as the pros and cons of these approaches, or how the approaches had been used by those on the ground in different teams. These examples of how this applied could be used as 'cameos' on different pages to help '*bridge the gap*' (Participant 9).

It was noted by participants that as they continue to use the resources it might become apparent that additional content is missing – especially as they look to use it in relation to specific projects.

Future considerations

Creation of across-organisation resources: The participants appreciated that given the site was hosted by Natural England there were a lot of Natural England specific resources, however they would appreciate these links for their own organisations, or at equivalent more general checklists/recommendations where appropriate or where no equivalent internal resources existed. It was highlighted that if the site was hosted externally, then these internal links could be shared when promoting the resources.

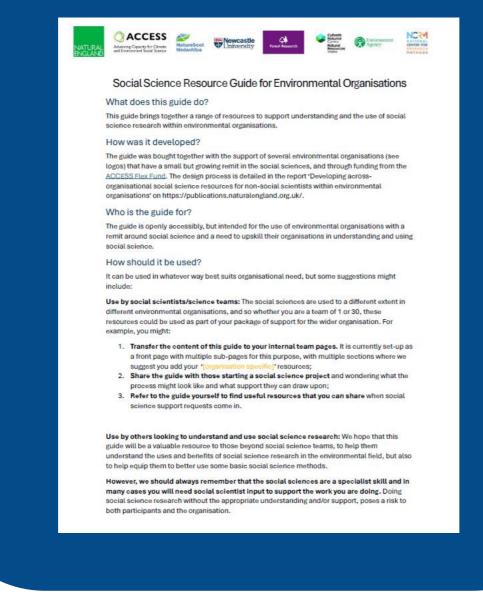
Wider uses of the resources: As well as being a resource for those looking to engage with social science, the SharePoint site could also be useful for raising awareness of social science more broadly across organisations, including for promoting the visibility of social science in areas where it may not be as high currently. One participant noted that

the resources could be used as a CPD option and could aligning with other training that might be ongoing within respective organisations.

Sharing more widely: As colleagues were likely to recommend the site to colleagues, they also highlighted that they would like to be able to recommend it to colleagues outside of the civil service, so considerations of how to do this would be appreciated. For non-Natural England participants it was mentioned that having something similar within their respective organisations would be appreciated.

Outcomes of Step 2: A guide to social science resources for environmental organisations

This development and piloting phase led to the publications of our 'Social Science Resource Guide for Environmental Organisations' published as an Appendix to this report on https://publications.naturalengland.org.uk/



Step 3: Outlining next steps

From the research completed within this project, we have gained a range of insights to inform what more might be needed to grow understanding of the social sciences within environmental organisations. These are summarised here as suggested next steps.

Creation of new across-organisational resources: This research has highlighted a range of areas in which improved resources would be beneficial and could not be provided through the drawing together of existing resources. This includes suggestions like an overarching checklist to begin the research process, working examples/case studies and training in less commonly used methods.

Increasing the accessibility of resources: Through the hosting of these resources and any further developments to them on an external web page, it will be possible to share them with wider organisations with a growing remit around social science. A user-friendly online format, ready to share will allow them to be an immediate resource and allow for more efficient on-going maintenance and updating of the resources.

Capturing user experience and on-going support needs: As part of the future development of these resources, it will be important to continue to use the established network to continue to ask 'what more is needed' and 'what new areas do you need support in'? This will change with time and with developments in both social science and the environmental field but will also change based on the understanding of our audience. It was notable that a number of those piloting the resources did have some experience in social science and were looking for higher-level resources and training as well as the basics.

Growing social science expertise: The need to acknowledge the social sciences as a technical skill was reiterated by social scientists taking part in this research. However, in a landscape where demand for social science is growing, but roles focusing on social science are few and far between, we must consider how we increase social science expertise for those embedded in wider teams. Could this be through the funding of social science courses for natural scientists alongside work? Or instead the co-development of online/in-person training courses accessible to environmental organisations?

References

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Qualtrics (2023) Qualtrics version November 2023. Provo, Utah, USA. Available at: <u>https://www.qualtrics.com</u>

Appendices

Appendix A: Survey for non-social scientists

Survey information: Using social sciences in environmental organisations

What are social sciences and why do they matter? The 'social sciences' very broadly study people (individuals, communities and societies), their values, attitudes, behaviour and interactions with each other and their environment.

Understanding people and the social, political, cultural, institutional, economic and technological contexts in which we operate is critical to delivering a thriving environment for people and planet.

The social sciences include a range of disciplines such as human geography, psychology, sociology, anthropology and many others (see <u>link</u> for more details).

Aims of this project Social scientists from a range of environmental organisations – Natural England, NatureScot, Forest Research, Environment Agency and Natural Resources Wales – have come together for this project with a shared aim:

To better support our colleagues/organisations to understand, use and commission social science research and insights as a key part of environmental challenges. How you can help

We invite anyone working in one of the environmental organisations from the list below to take part in this survey which will **take around 10 minutes**.

By participating you are helping us to gain a better understanding of how social science methods are being used within environmental organisations, and what further support is needed.

Anyone who works within the following organisations can take part, including those who have and have not used social science methods. This includes social scientists and non-social scientists from:

- British Geological Survey (BGS)
- Centre for Ecology and Hydrology (CEH)
- Centre for Environment, Fisheries and Aquaculture Science (CEFAS)
- Department for Environment, Food and Rural Affairs (Defra)
- Environment Agency
- Environment and social research council (ESRC)
- Forest Research
- Marine Management Organisation (MMO)
- Met Office
- Natural England
- Natural Resources Wales
- NatureScot
- Office of Environmental Protection (OEP)
- Welsh Government

Your data

Participation in the study is voluntary and you have the **right to decline the invitation or to withdraw** from the study at any time during the survey.

Your answers will be **anonymously** recorded and analysed. This means we will not ask for your name, most data will be analysed together (combining multiple responses) and where individual free-text responses are reported, these will be checked for identifiable information (e.g., name of organisation or projects removed).

All data captured will be stored in **compliance with UK GDPR guidelines**. We thank you in advance for your time and contributions to this research.

Consent I agree to take part in the research

Yes (1) No (2)

Questions about you

- Q1) Which of the following best describes your highest education level attained? GCSE/ O-level or Standard Grades/Nationals (1) A-level (college/sixth form) or Highers/Advanced Highers (2) Some university credits/ no degree (3) Trade/ techincal/ vocational training (4) Bachelor's degree (5) Master's degree (6) Professional degree (7) Doctorate degree (8) Other (9) Q2) Which organisation do you work for? British Geographical Survey (BGS) (1) Centre for Ecology and Hydrology (CEH) (2) Centre for Environment, Fisheries and Aquaculture Science (CEFAS) (3) Department for Environment, Food and Rural Affairs (Defra) (4) Environment Agency (5) Environment and Social Research Council (ESRC) (6) Forest Research (7) Marine Management Organisation (MMO) (8) Met Office (9) Natural England (10) Natural Resources Wales (11) NatureScot (12) Office of Environmental Protection (OEP) (13) Welsh Government (14) Other (please specify) (15)
- Q3) What broad area/discipline best describes your current work?

Q4) How confident would you be in the following	Very unconfident (1)	Unconfident (2)	Neither unconfident nor confident (3)	Confident (4)	Very confident (5)
Knowing what the social sciences are (1)					
Knowing how the social sciences can help address environmental challenges (10)					
Knowing how to get social science support from within your organisation (6)					
Knowing how to commission external social science support (7)					
Knowing how to identify the most appropriate social science method(s) to use for your research question (9)					
Knowing what ethical considerations/approvals you need to think about when doing social science research (5)					
Collecting data using different social science methods (2)					
Analysing and interpreting <u>quantitative</u> social science data (i.e., numbers-based surveys or data) (3)					
Analysing and interpreting <u>qualitative</u> social science data (i.e., interviews and open-ended text responses) (4)					
Knowing how to use existing evidence to ensure your work is evidence led (8)					

Knowing how to assess the			
quality of social science			
research (11)			

How you have used social science research methods

Reminder: The 'social sciences' very broadly study people (individuals, communities and societies), their values, attitudes, behaviours and interactions with each other and their environment.

Common 'social science research methods' include, but are NOT limited to:

- **Surveys** with people
- Interviews (both one-to-one and in a group)
- Observational research where people are simply observed/recorded
- **Creative methods** using photos, activities, art, or a place to encourage people to share their thoughts and bring out different people's voices
- Literature reviews to collate/draw conclusions from existing social science research

Q5a) What (if any) is the highest social science qualification you have attained?

No social science qualifications (1) Some social science experience within another qualification (2) A social science qualification (3)

Not sure (4)

Skip To: Q7 If Q5a) What (if any) is the highest social science qualification you have attained? = No social science qualifications

Q5b) Please provide details of your social science qualification in Q5a. e.g., BSc in Geography with a module on human geography and a survey-based dissertation, BSc Sociology

Q6) Have you received any social science training not listed under question 5?

Yes (please describe) (4) ______ No (5) Q7) Please select which of the following social science research methods you have used and in what capacity

	I have used myself (alone or with others) (4)	I have commissioned (1)	I have advised on (e.g., steering or advisory group) (2)	No, I have not used (3)	Unsure (5)
Surveys with people (1)					
One-to-one interviews (2)					
Group interviews/focus groups (3)					
Observational research with people (4)					
Creative methods with people (5)					
Literature reviews (6)					
Acquiring ethics approval for a project (7)					
Other (please specify) (8)					

Please select one or more options for each row and add 'other' if needed

Q8) How confident are you in undertaking each of the following social science research methods?

	Very unconfident (1)	Unconfident (2)	Neither unconfident nor confident (3)	Confident (4)	Very confident (5)
Surveys with people (1)					
One-to-one interviews (2)					
Group interviews/focus groups (3)					
Observational research with people (4)					
Creative methods with people (5)					
Literature reviews (6)					
Acquiring ethics approval for a project (7)					
Other (please specify) (8)					

Training needs

This section is designed to explore what further training in social science methods might help you in your work

Q9) First it would be helpful to get your general thoughts on any previous training you have received on social science methods. What did you find most helpful/unhelpful? *e.g., content, delivery mode, duration, format etc.*

Q10) What types of training are you most likely to engage with? Please drag and drop the options below to rank them in order from most to least preferred.

_____ Online/in person drop-in advice sessions (1)

_____ Live online training e.g., webinar (3)

_____ Pre-recorded online training (4)

_____ Online written resources (5)

_____ In person training sessions (7)

_____ Other (please specify) (6)

Q11) Please rate your agreement with the following statements. I would like to receive further information/training on	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
Knowing what the social sciences are (1)					
Knowing how the social sciences can help address environmental challenges (10)					
Knowing how to get social science support from within your organisation (6)					
Knowing how to commission external social science support effectively (7)					
Knowing how to identify the most appropriate social science method(s) to use for your research question (9)					
Knowing what ethical considerations/approvals you need to think about when doing social science research (5)					
Using different social science methods (2)					
Analysing and interpreting <u>quantitative</u> data (i.e.,					

numbers-based surveys or data) (3)			
Analysing and interpreting <u>qualitative</u> data (i.e., interviews and open-ended text responses) (4)			
Knowing how to use existing evidence to ensure your work is evidence-led (8)			
Knowing how to assess the quality of social science research (11)			

Q12) Please tell us about other social science information/training you think might be useful.

I would like more information/support on

Q13) If you have any further comments on your use of social science methods, or further training/resources you would like to see, please add these to the text box below

Appendix B: Pre survey questions for pilot participants

Q1

Survey information: Using the social sciences in environmental organisations

Thank you for taking the time to trial our social science resources. This pre-trial survey should take no longer than **5 minutes** to complete.

By participating you are helping us to gain a better understanding of how useful the resources are and what further improvements could be made.

Your data

Participation in the study is voluntary and you have the **right to decline the invitation or to withdraw** from the study at any time during the survey.

Your answers will be **anonymously** recorded and analysed. This means we will not ask for your name, most data will be analysed together (combining multiple responses) and where individual free-text responses are reported, these will be checked for identifiable information (e.g., name of organisation or projects removed).

All data captured will be stored in compliance with UK GDPR guidelines.

Q2 I agree to take part in the research

- o Yes (1)
- o No (2)

Q3 Survey ID

To be able to match your before and after survey responses without taking your name, can you create a unique 4 digit code for yourself using the following format:

- your numeric day of birth (e.g., if your birthday is 15th January you would use '15')

- the first two letters of your home address/street name (e.g., if your street is called 'Kings Road' then you would use 'KI')

Using this format your code would be 15KI

Q4 Which organisation do you work for?

- o British Geographical Survey (1)
- o Centre for Ecology and Hydrology (2)
- o Centre for Environment, Fisheries and Aquaculture Science (3)
- o Department for Environment, Food and Rural Affairs (4)
- o Environment Agency (5)
- o Environment and Social Research Council (6)
- o Forest Research (7)
- o Marine Management Organisation (8)
- o Met Office (9)
- o Natural England (10)
- o Natural Resources Wales (11)
- o NatureScot (12)

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- o Office for Environmental Protection (13)
- o Welsh Goverment (14)
- o Joint Nature Conservation Committee (15)
- o Other (please specify) (16) _____

Q5 So we can understand your current level of confidence with the social sciences, we have a few short questions.

How confident would you be in the following...

	Very Unconfident (1)	Unconfident (2)	Neither unconfident nor confident (3)	Confident (4)	Very Confident (5)
Knowing what the social sciences are (1)					
Knowing how the social sciences can help address environmental challenges (2)					
Knowing how to get social science support from within your organisation (3)					
Knowing how to commission external social science support (4)					
Delivering a social science project yourself without specialist support (5)					
Knowing how to identify the most appropriate social science method(s) to use for your research question (6)					
Knowing what ethical considerations/approv als you need to think about when doing social science research (7)					

Collecting data using different social science methods (8)			
Analysing and interpreting <u>quantitative</u> social science data (i.e., numbers-based surveys or data) (9)			
Analyisng and interpreting <u>qualitative</u> social science data (i.e., interviews and open-ended text responses) (10)			
Knowing how to use existing evidence to ensure your work is evidence led (11)			
Knowing how to assess the quality of social science research (12)			

Q6a What (if any) is the highest social science qualification you have attained?

- o No social science qualifications (1)
- o Some social science experience within another qualification (2)
- o A social science qualification (3)
- o Not sure (4)

Q6b Please provide details of your social science qualification in Q6a. E.g., BSc in Geography with a module on human geography

Q7 Can you tell us more about if/how you currently engage with social science in your work

Appendix C: Post survey questions for pilot participants

Q1 Survey information: Using the social sciences in environmental organisations

Thank you for taking the time to trial our social science resources.

This post-trial should take between 5 and 10 minutes to complete.

By participating you are helping us to gain a better understanding of how useful the resources are and what further improvements could be made.

Your data

Participation in the study is voluntary and you have the **right to decline the invitation or to withdraw** from the study at any time during the survey.

Your answers will be **anonymously** recorded and analysed. This means we will not ask for your name, most data will be analysed together (combining multiple responses) and where individual free-text responses are reported, these will be checked for identifiable information (e.g., name of organisation or projects removed).

All data captured will be stored in compliance with UK GDPR guidelines.

Q2 I agree to take part in the research

- o Yes (1)
- o No (2)

Q3 Survey ID

To be able to match your before and after survey responses without taking your name, can you create a unique 4 digit code for yourself using the following format:

- your numeric date of birth (e.g., if your birthday is 15th January you would use '15')

- the first two letters of your home address/street name (e.g., if your street is called 'Kings Road' then you would use 'KI')

Using this format your code would be 15KI

Q4 So we can understand your current level of confidence with the social sciences, we have a few short questions.

How confident would you be in the following...

Tiow connuent would you					
	Very Unconfident (1)	Unconfident (2)	Neither unconfident nor confident (3)	Confident (4)	Very Confident (5)
Knowing what the social sciences are (1)					
Knowing how the social sciences can help address environmental challenges (2)					
Knowing how to get social science support from within your organisation (3)					
Knowing how to commission external social science support (4)					
Delivering a social science project yourself without specialist support (5)					
Knowing how to identify the most appropriate social science method(s) to use for your research question (6)					
Knowing what ethical considerations/approv als you need to think about when doing social science research (7)					
Collecting data using different social science methods (8)					

Analysing and interpreting <u>quantitative</u> social science data (i.e., numbers-based surveys or data) (9)			
Analyisng and interpreting <u>qualitative</u> social science data (i.e., interviews and open-ended text responses) (10)			
Knowing how to use existing evidence to ensure your work is evidence led (11)			
Knowing how to assess the quality of social science research (12)			

Q5 Have you engaged with the social science training and resource pages provided by the project?

- o Yes (1)
- o No (2)

Skip To: Q8 If Have you engaged with the social science training and resource pages provided by the project? = No

Q6 If yes, roughly how long have you spent looking at them? Please put the time in minutes

Q7 Please rate your agreement with the following statements. Having used the social science resource pages...

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
I will use the resources again in the future (1)					
I would recommend the resources to colleagues (2)					
I have a better understanding of the social sciences (3)					
I would be more confident in using social science methods (4)					
I better understand how the social sciences can help address environmental/clim ate challenges (5)					
I know when and how to employ qualified social scientists (6)					

Q8 Is there any further feedback you would like to give on the resources or the pilot that you were unable to share in the meeting?



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