Scottish Environment LINK: Measuring public attitudes in Scotland

Report by The Diffley Partnership

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Diffley Partnership

From many voices to smart choices

Contents

1. Background and methodology

Diffley Partnership – an independent research agency based in Edinburgh – was commissioned by Scottish Environment LINK to conduct research exploring individuals' perceptions and experiences of environmental issues in Scotland.

This chapter contains an overview of the background and methodology of this research.

1.1 Background and methodology

In close collaboration with Scottish Environment LINK, Diffley Partnership devised a research methodology involving two stages:

1) Large-scale survey of the Scottish public
2) Follow-up focus groups to explore perceptions in greater depth.

Stage 1: Large-scale survey

Diffley Partnership worked with Scottish Environment LINK to refine the survey questionnaire (see Appendix A). The resulting questionnaire included 15 closed questions, examining participants' knowledge of, and familiarity with, environmental issues, experience of climate change, and attitudes towards environmental action. At the end of the survey, respondents were asked if they would be willing to participate in follow-up research, which informed recruitment for stage 2.

Invitations to complete the survey were sent out through the online ScotPulse panel between 16-21 May 2024. The survey achieved 2,309 responses and was comprised of three sub-samples: a nationally representative sample of 1,081 Scottish residents, a boost sample of 705 residents of rural Scotland and a boost sample of 523 Highlands and Islands (H&I) residents, ensuring spread of respondents from across Scotland. including rural populations,

For the purpose of this research, 'rural' refers to individuals in classes 4, 5, and 6 of the Scottish Government's six-fold classification and 'Highlands and Islands' (H&I) refers to individuals in the H&I Scottish Parliamentary Region.

Stage 2: Focus groups

Diffley Partnership drafted the discussion guide, which was reviewed and approved by Scottish Environment LINK. The discussion guide included questions similar to those in stage 1, exploring knowledge and familiarity of environmental issues, participants' experiences of the natural environment, and attitudes to governmental actions. Where possible, these questions were asked with accompanying stimuli, including results from the national survey or previous publications, to allow participants to consider topics they might not be familiar with and prompt discussion. The discussion guide, including the stimuli used in the focus group are presented in Appendix B.

Researchers carried out two follow-up focus groups with Scottish residents who had participated in the stage 1 survey and had consented to be contacted for further research.

The aim of the focus groups was to further understand perceptions and experiences of environmental issues amongst Scottish rural residents. The first focus group included participants residing in rural mainland Scotland, while the second focus group comprised coastal Scottish rural participants. Participants were classified as rural based on their postcode and then sorted into 'Mainland' and 'Coastal' groups by self-identification of their area. Attention was also paid to sample across gender, age, and social groups, as well as participants' self-reported connection to nature, concern for the natural environment, and sense that they are informed about issues affecting the natural environment, as communicated in their survey responses (see Appendix B and Figures 2.1; 2.2; 3.2; 2.4).

Focus groups took place from 5:30pm to 7:00pm on June 4th and 10th, 2024, online via the Zoom platform. Each group included 5 participants, for a total of 10. Participants were aware in advance of the purpose of the research, that representatives of Scottish Environment LINK would be in attendance as an observer, and that each group would be recorded by Diffley Partnership. As a thank you for participating, each participant received a £40 incentive by bank transfer.

1.2 Presentation and interpretation of findings

Quantitative

Survey responses were tabulated and weighted to 2021 adult population estimates by age and gender in each area. For example, the national survey was weighted to estimates by age and gender across Scotland, the rural boost sample was weighted to estimates by age and gender in rural areas, and the H&I boost sample was weighted to estimates by age and gender in the Highlands and Islands.

To look for relationships or variations between sub-groups, two-sample t test for difference in means scores were applied, allowing the examination of values by sub-groups of interest. Statistical differences between groups are reported at the 95% level. Differences between groups

are only reported when statistically significant. Reporting does not include the result of every statistical test conducted; the most relevant and salient results are highlighted. Where possible, frequencies are provided to illustrate differences between groups, but all frequencies for comparisons across multiple categories are not included in the body of the report.

Where percentages do not sum to 100%, this is due to rounding or multiple answers. Aggregate percentages (e.g. 'agree'/'disagree') are calculated from the absolute values. Therefore, aggregate percentages may differ from the sum of the individual scores due to rounding of percentage totals.

Qualitative

Focus group responses were selectively transcribed for later analysis. Subsequently, responses were analysed using thematic analysis.[1] A coding framework was devised with initial themes based upon the discussion guide. Text was coded iteratively, to identify extra sub-themes.

1.3 Report structure

This report summarises the key findings of each survey question across the national sample, including descriptive statistics, between-group differences, and any differences across the three sub-samples with the aid of data visualisation. After relevant survey questions, the report comments on results from the focus groups, using quotes to illustrate main points.

[1] Methods Map: Research Methods: SAGE Research Methods (sagepub.com)

Findings in the report are organised around sections in the survey, including:

- Knowledge of and familiarity with environmental issues,
- Experience of climate change and human impacts,
- Attitudes towards action to protect the environment.

Subsequently, the report examines participants' responses to the various stimuli presented through the focus groups.

The report concludes with a summary of key findings from across both strands of the research.

2. Knowledge and familiarity

This chapter explores respondents' connection to nature and knowledge of environmental issues, including survey results and focus group findings.

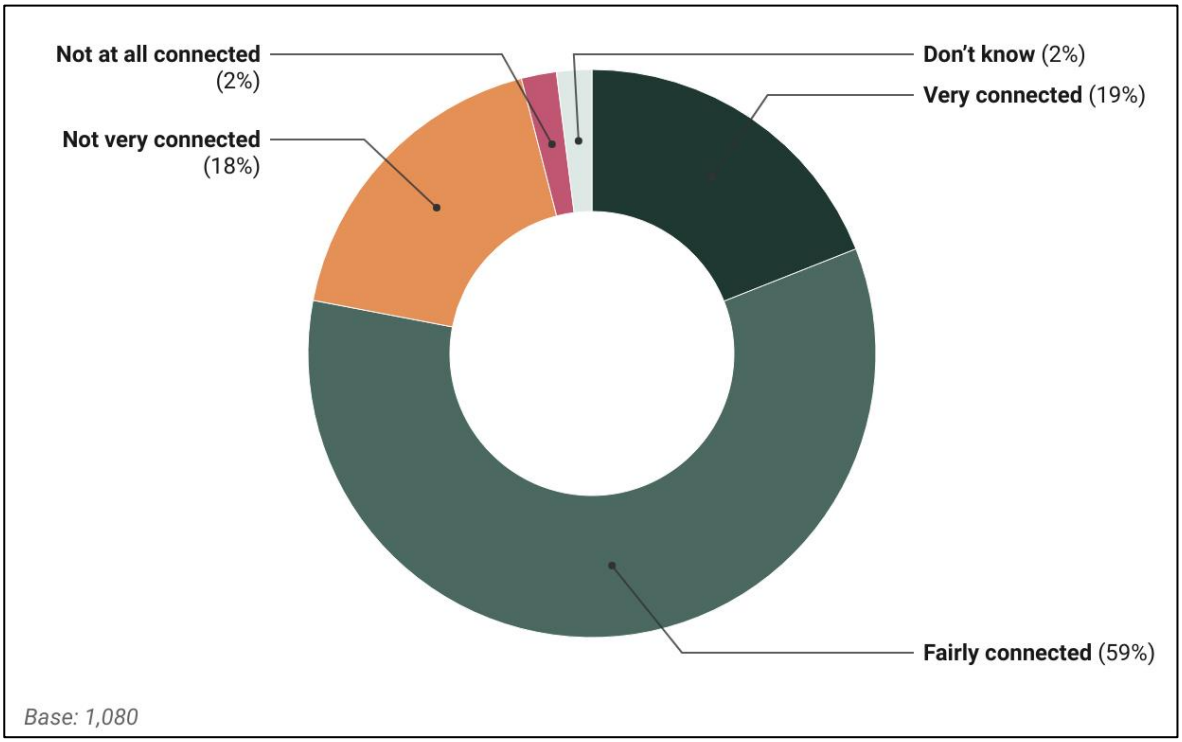
2.1 Connection to nature

National survey results

The survey opened with a question asking respondents *'to what extent, if at all, do you feel connected to the natural environment?'* (see Figure 2.1).

Over three in four (77%) respondents feel connected (*'very connected'* or *'fairly connected'*) to the natural environment. Of those who feel connected to the natural environment, more respondents select *'fairly connected'*, representing over half of the sample (59%), rather than *'very connected'* (19%). In contrast, only one fifth (20%) of respondents report that they do not feel connected (*'not very connected'* or *'not at all connected'*) to the natural environment, with more respondents saying they feel *'not very connected'* (18%) rather than *'not at all connected'* (2%).

Figure 2.1: Connection to nature



Examining differences between groups, the oldest generation – those 65 or older - is more likely than those under 55 to say that they feel *'very connected'* to nature, reported by one in four (27%) of those 65+ compared to one in six (16%) of those 16 to 54. These findings may be linked to spare time from employment, as retired individuals are more likely to say that they feel *'very connected'* to the natural environment (27%) than those in full-time employment (15%).

A key influence on sense of connectedness with nature is geography. In particular:

- **Neighbourhood:** Those in the most deprived neighbourhoods – encompassing SIMD 1 and 2 – are most likely to say that they feel not connected to nature (31%), while those in more affluent neighbourhoods – SIMD 3, 4, and 5 - are most likely to say that they feel connected to nature (83%).
- **Rurality:** Rural residents are more likely to say they feel connected (91%) and *'very connected'* (25%) than those in urban areas (73%; 17%). In contrast, urban residents are more likely to say that they feel *'not very connected'* to the natural environment (21%; 7%).

- **Scottish Parliamentary Region:** Residents of Mid Scotland and Fife (88%), Highlands and Islands (86%) and North East Scotland (84%) are more likely to say they feel connected to the natural environment than those in West Scotland (72%), Central Scotland (69%), and Glasgow (56%) Scottish Parliamentary Regions. Those in the Glasgow Scottish Parliamentary Region are most likely to say that they feel not connected (39%) or *'not very connected'* to nature (36%).

There is also strong evidence that these results are related to interaction and engagement with nature, as feelings of connectedness are higher amongst those with more frequent interaction with nature. Of those who visit nature *'almost every day'*, 94% say they feel connected to nature, with 45% saying they feel *'very connected'*; this falls to 32% and 5% respectively, of those that visit nature *'less than once a month'*.

Subsample differences

Among the rural and H&I boost samples, respondents in these areas report higher levels of connection to the natural environment (see Table 2.1). Whereas 77% of the nationally representative sample report they feel *'very connected'* or *'fairly connected'*, this rises to 85% and 83% respectively. In general, this increase is driven by the percentage who feel *'very connected'* to the natural environment in each area, as 33% and 24% of the boosts feel *'very connected'*, compared to just 19% of the nationally representative sample.

Table 2.1: Connection to nature

	National (n=1,080)	Rural boost (n=705)	H&I boost (n=523)
	%	%	%
Very connected	19	33	24
Fairly connected	59	52	59
NET: Connected	77	85	83

Not very connected	18	11	14
Not at all connected	2	3	2
NET: Not connected	20	13	17
Don't know	2	2	1

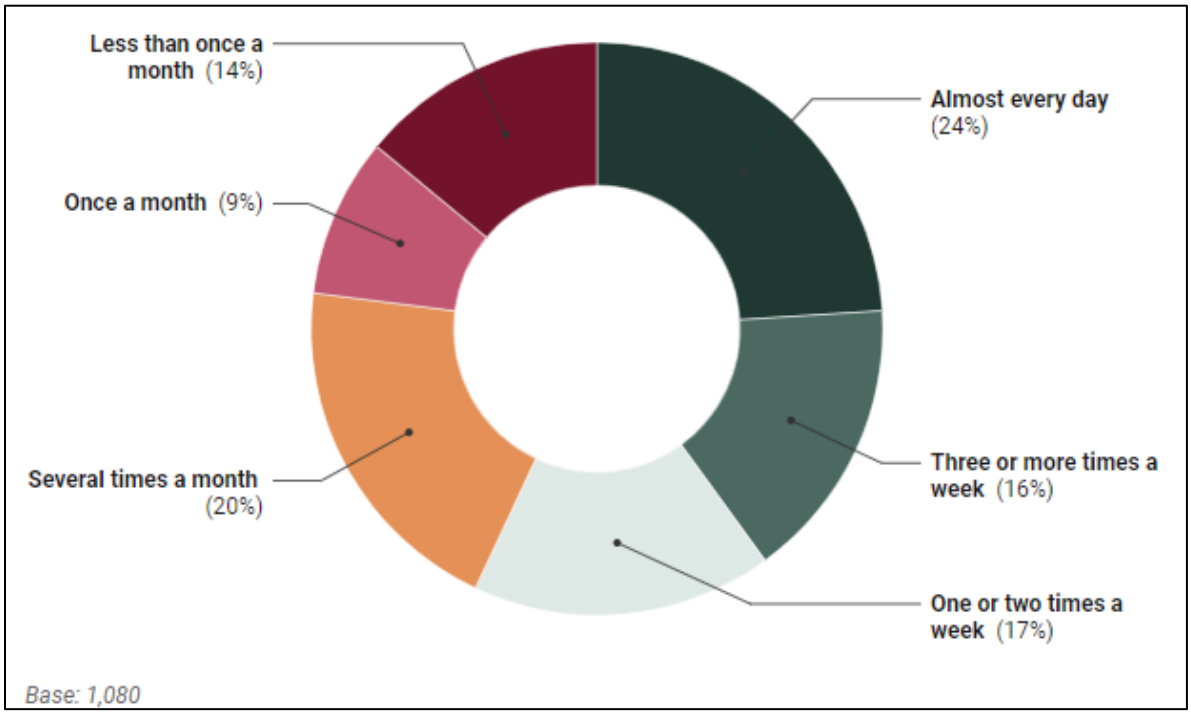
2.2 Interaction with nature

National survey results

Subsequently, respondents were asked about their interaction and engagement with nature, specifically *'how often do you visit nature (e.g., woodlands, coastal areas, lochs and rivers, local parks and gardens, etc.)?'* (see Figure 2.2).

Responses to this question are split amongst the population (see Figure 2.2). Most respondents report that they interact with nature once a week or more, selected by well over half (57%). Of these, one in four (24%) of the nationally representative sample report that they visit nature *'almost every day'*. However, one in five (20%) of the population visit nature *'several times a month'* and one in seven (14%) visit nature *'less than once a month'*.

Figure 2.2: Interaction with nature



As for connection to nature, age is a key indicator of response. Those 65+ visit nature most frequently, with 34% visiting nature *'almost every day'* compared to just 17% of those 16 to 34. Employment also remains salient, with 65% of those that are retired visiting nature once a week or more, compared with 55% of those that are employed full-time.

In addition to these factors, households with children also report more frequent visits to nature than households without, with 65% of those in households with children visiting nature once a week or more compared to 55% of households without children.

Looking towards location, the same factors remain relevant:

- **Neighbourhood:** The most affluent neighbourhoods visit nature more frequently than the most deprived neighbourhoods, with 63% of those in SIMDs 4 and 5 visiting nature at least once a week, compared to just under half (47%) of those in SIMD 1.
- **Rurality:** About three in four (76%) of those in rural areas visit nature once a week or more, whereas only half (51%) or urban residents do the same.

- **Scottish Parliamentary Region:** Those in the H&I Scottish Parliamentary Region are more likely to visit nature *'almost every day'* (42%) than those in almost every other Scottish

  Parliamentary Region. Those in the Glasgow Scottish Parliamentary Region are more likely than those in many other areas to visit nature less than once a week (63%).

Subsample differences

Looking across the boost samples, respondents in rural areas and in the H&I report more frequent interaction with nature (see Table 2.2). About four in ten of those in the rural and H&I boost samples visit nature *'almost every day'* (41%; 38%), while only one in four (24%) of Scottish residents do the same.

Table 2.2: Interaction with nature

	National (n=1,080)	Rural boost (n=701)	H&I boost (n=523)
	%	%	%
Almost every day	24	41	38
Three or more times a week	16	12	16
One or two times a week	17	17	13
NET: Once a week or more	57	70	67
Several times a month	20	15	11
Once a month	9	3	12
Less than once a month	14	11	9
NET: Less than once a week	43	30	33

Focus group findings

As an icebreaker, focus group participants each shared their relationships with nature. Whilst rurality was a common thread in many responses, individuals framed their connections and interactions around their various hobbies, interests and work.:

> "I'm a keen gardener, animal lover, vegan. I used to be an environment health officer, and I like the outdoors and hills and woods." (Participant 1, Mainland)

> "This is a crofting area and it's a crofting community. I'm not a crofter; my son is, on a different island and I really feel that crofting should have quite a voice as a sector when it comes to the environment." (Participant 6, Coastal)

Participants associated appreciation of nature with living in rural locations, whether they were born there or had relocated to one:

> "I'm also in the Highlands. I think since moving here about two years ago, I've just began to appreciate nature a bit more, the environmental aspect and this here is a lot more rural than what I had previously." (Participant 2, Mainland)

> "I'm from the island of … and I'm going to study zoology in September. So I've always had a passion for the environment." (Participant 7, Coastal)

2.3 Interaction with nature conservation charities

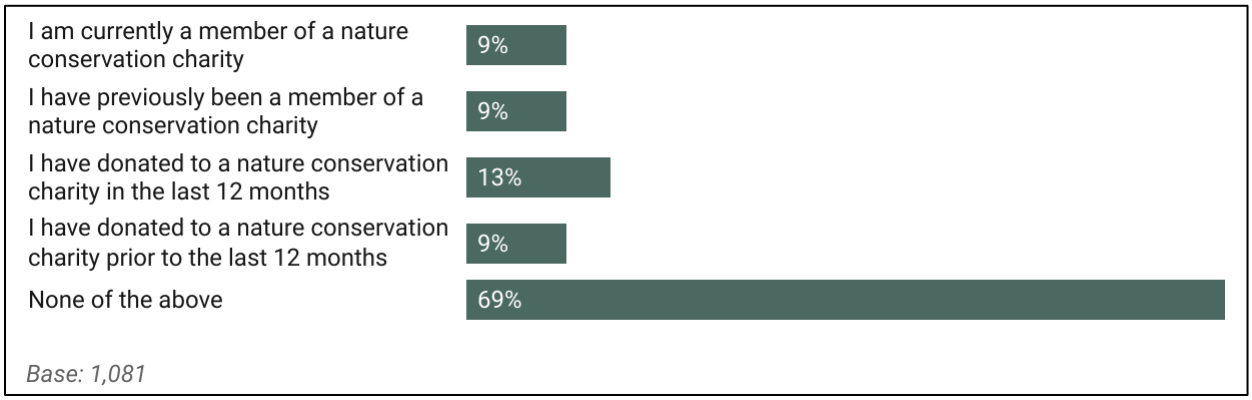
National survey results

Along with connection and interaction with nature, survey respondents were asked about their interaction with nature conservation charities: *'Are you a member of, or have you in the past 12 months made any donations to, any charities involved in nature conservation?'* (see Figure 2.3).

A sizable majority (69%) have never been a member of or donated to a nature conservation charity. Of those who have interacted with a nature conservation charity, the most common category of interaction is donating to a nature conservation charity in the last 12 months, selected by just over one in eight (13%). This is higher than the percentage who have previously donated to a nature conservation charity (9%), suggesting renewed interest in supporting nature conservation charities over the last year. A

similar percentage, about one in ten, report being a current (9%) or previous member (9%) of a nature conservation charity.

Figure 2.3: Interaction with nature conservation charities



Age remains a salient demographic for interaction with nature conservation charities, with interaction higher amongst the older generations. Those 35 or older are more likely to report one or more category of interaction than those 16 to 34; where 65% of those 35 or older indicate that they have never been a member or donated to a nature conservation charity, this rises to 79% of those 16 to 34.

Interaction with relevant charities may also interact with employment, access to leisure time, and disposable income. Those that are retired are more likely to report current membership with a nature conservation charity (15%) than those in full-time employment (6%), and those in higher social grades (ABC1) are more likely to currently be a member (12%) or have recently donated to a nature conservation charity (15%) than those in grades C2DE (5%; 9%).

Geography also impacts membership with and donation to nature conservation charities, particularly neighbourhood and Scottish Parliament Region:

- **Neighbourhood:** Those in more affluent neighbourhoods (SIMD 3, 4, 5) are more likely than those in the most deprived neighbourhoods (SIMD 1) to report previous membership in a nature conservation charity (11%; 3%) and recent donations to nature conservation charities (15%; 6%).
- **Scottish Parliament Region:** Those in the North East Scotland Scottish Parliament Region are more likely to have previously been a member of a nature conservation charity (15%) than those in West Scotland (7%), Central Scotland (6%), and Glasgow (3%).

Connection and interaction with nature may also influence interest in membership and donations. Those who do not feel connected to the environment are more likely to say that they have never

been a member of or donated to a nature conservation charity than those who feel connected (*'very connected'* to *'fairly connected'*) to the natural environment (85%; 64%). Similarly, those who visit nature less than once a week are also more likely to report never having been a member nor donated to a nature conservation charity (81%; 59%).

Concern with the environment may also impact interaction with nature conservation charities. Those who *'rarely'* or *'never'* worry about the natural environment are more likely to report that they have never been a member nor donated to a nature conservation charity (84%), than those who *'often'* or *'occasionally'* worry about the natural environment (64%).

Subsample differences

Interaction with nature conservation charities varies across the samples (see Table 2.3). Rates of membership are particularly high amongst respondents in the rural boost, where one in four (25%) report they are a member or have previously been a member of a nature conservation charity, compared to under one in five in the H&I (18%) and Scotland-wide (17%). Rates of donation are similarly high amongst rural respondents, with one in four (25%) having donated to a nature conservation charity, compared to 22% and 19% of those in the H&I and of Scottish residents respectively.

Table 2.3: Interaction with nature conservation charities

	National (n=1,081)	Rural boost	H&I boost (n=523)

		(n=705)	
	%	%	%
I am currently a member of a nature conservation charity	9	14	8
I have previously been a member of a nature conservation charity	9	12	10
NET: Current or previous member	17	25	18
I have donated to a nature conservation charity in the last 12 months	13	16	16
I have donated to a nature conservation charity prior to the last 12 months	9	13	9
NET: Current or previous donor	19	25	22
None of the above	69	54	64

Focus group findings

While many participants in the focus groups discussed their interaction with environmental groups through education or employment, participants were not asked directly about interaction with nature conservation charities and no participants directly referenced membership or donation history with nature conservation charities unprompted. However, one participant mentioned that they had heard of the terms 'nature restoration' and 'rewilding' through Scottish Wildlife Trust, suggesting that nature conservation charities can act as an important source of information of environmental issues.

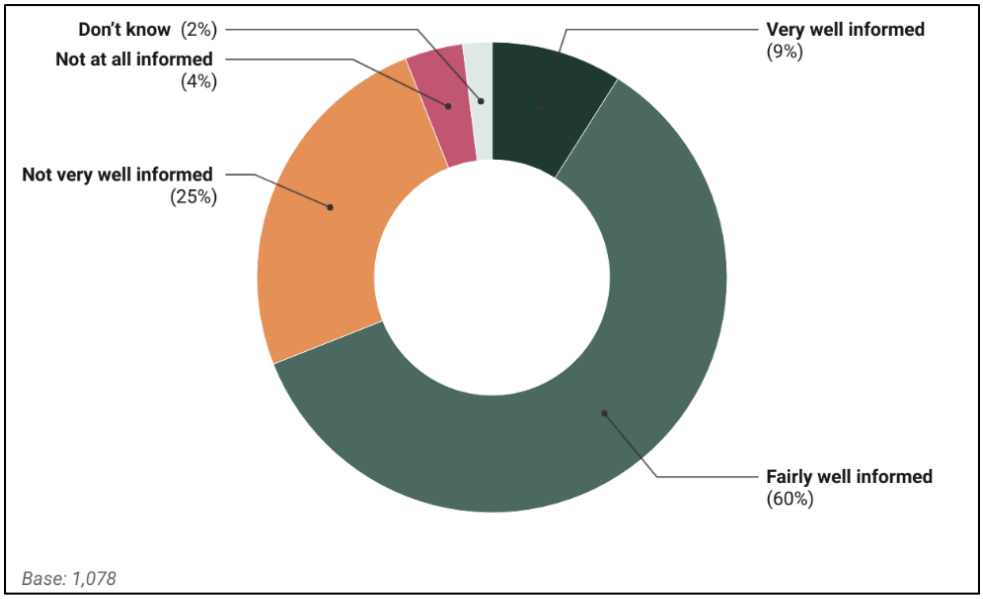
2.4 Familiarity with environmental issues

National survey results

Respondents were also surveyed on how knowledgeable they perceive themselves to be on environmental issues, including, *'How well informed, if at all, do you think you are about issues affecting the natural environment?'* (see Figure 2.4).

69% of the public think they are informed on environmental issues, with 9% thinking they are *'very well informed'* and a majority (60%) thinking they are *'fairly well informed'*. About three in ten (29%) think they are not informed, with most of this group thinking they are *'not very well informed'* (25%) and only 4% claiming they are *'not at all informed'* on environmental issues.

Figure 2.4: Informed about issues affecting the natural environment



In line with earlier findings, older generations are more likely to think they are informed about issues affecting the natural environment. Three in five (75%) of those 55 and over report that they are informed, while this figure falls to under two in three (63%) of those under 35. Similarly, those that are retired are more likely to be think they are informed (75%) than those in full-time employment (67%).

Geography remains a paramount influence on how informed people think they are about issues affecting the natural environment:

- **Neighbourhood:** Those in more affluent neighbourhoods (SIMD 3, 4, 5) are more likely to say they are informed (74%) than those in SIMD 1 and 2 (59%).
- **Rurality:** Rural respondents are more likely to say that they are informed than those in urban areas (80%; 66%), and especially *'very well informed'* (15%; 7%).
- **Scottish Parliamentary Region:** Residents of all Scottish Parliamentary Regions (74%) are more likely to say they are informed than those in Central Scotland (55%) and Glasgow (51%).

Connection with the natural environment and interaction with nature influence responses to this question. Those who feel connected to the environment are more likely to think they are informed

than those who do not feel connected to nature (80%; 33%), as are those who visit nature at least once a week (79%) compared to those who visit less than once a week (57%).

Subsample differences

Additionally, a higher percentage of Scottish residents in the rural boost (79%) and in the Highland and Islands boost (80%) samples report that they are informed about issues affecting the natural environment than the general population (69%) (see Table 2.4). While this difference is spread across the categories of *'very well informed'* and *'fairly well informed'* in the rural boost, it is especially large in the *'very well informed'* category for the H&I boost, where almost one in five (19%) think they are *'very well informed'*, compared to just under one in ten (9%) of all residents in Scotland.

Table 2.4: Informed about issues affecting the natural environment

	National (n=1,078)	Rural boost (n=703)	H&I boost (n=523)
	%	%	%
Very well informed	9	15	19
Fairly well informed	60	64	61
NET: Informed	69	79	80
Not very well informed	25	16	15
Not at all informed	4	2	4
NET: Not informed	29	18	19
Don't know	2	3	1

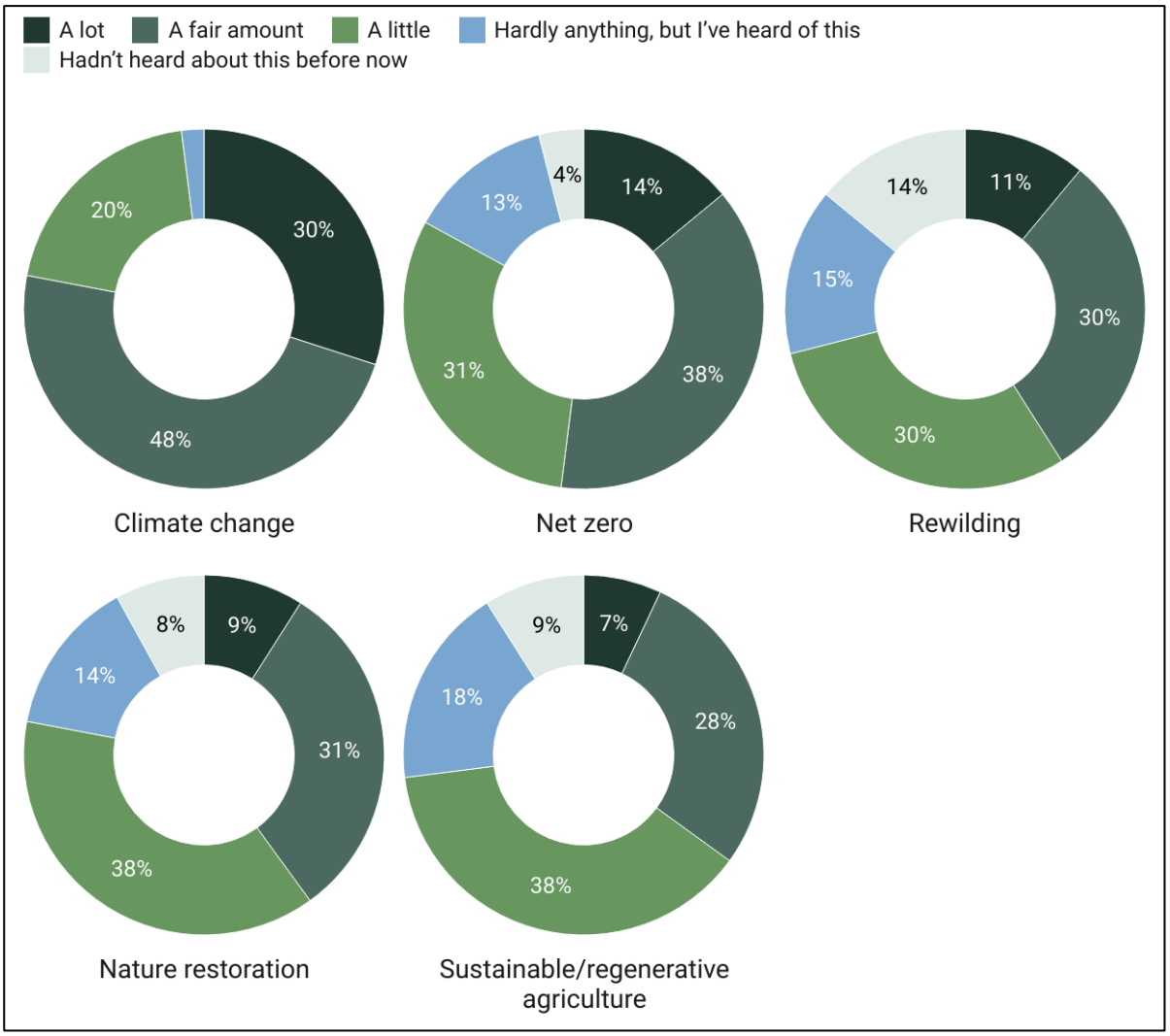
2.5 Knowledge of environmental concepts

National survey results

Survey respondents were asked about their familiarity with five environmental concepts: climate change, net zero, nature restoration, rewilding, and sustainable/regenerative agriculture. Specifically, the question enquired, *'Before today, how much, if anything, did you know about the following concepts?*' (see Figure 2.5).

Of these concepts, respondents indicate the most knowledge about climate change, with about three in four (78%) saying they know *'a lot'* or *'a fair amount'* about this topic. High rates of knowledge are also shown for the concept of net zero, where over half (52%) report knowing *'a lot'* or *'a fair amount'*. Lower levels of knowledge are professed for concepts including rewilding (41%), nature restoration (40%), and sustainable/regenerative agriculture (35%), where approximately two in five or fewer report that they know *'a lot'* or *'a fair amount'*.

Figure 2.5: Knowledge of environmental concepts



On many concepts, men are more likely than women to say they know *'a lot'* or *'a fair amount'* about the topic.

Other demographic differences vary depending on the concept. For instance, age impacts knowledge of rewilding, where half (51%) of those 65+ say they know *'a lot'* or *'a fair amount'* on this topic, compared to under four in ten (38%) of those under 65. Similarly, those who are retired report greater knowledge and familiarity, either *'a lot'* or *'a fair amount'*, on the concepts of nature restoration (43%) and rewilding (49%) than those in full-time employment (35%; 33%). Differences by social grade are also noted for popularised topics, as those in grades ABC1 are more likely to

say they know *'a lot'* or *'a fair amount'* about climate change (81%) and net zero (57%) than those in grades C2DE (74%; 45%).

Geographic differences are also present and dependent on concept:

- **Neighbourhood:** Those in more affluent neighbourhoods (SIMD 4 and 5) are more likely to say they know *'a lot'* or '*a fair amount*' about net zero (57%) and rewilding (47%) than those in the least affluent areas (SIMD 1 and 2) (32%; 44%).
- **Rurality:** A greater proportion of rural residents report that they know *'a lot'* or *'a fair amount'* about nature restoration (48%) and sustainable/regenerative agriculture (44%) than those in urban areas (38%; 32%).
- **Scottish Parliament Region:** For every concept except climate change, a larger proportion of residents of all other Scottish Parliament regions select that they know *'a lot'* or *'a fair amount'* than residents of Central Scotland and Glasgow.

Subsample differences

For most concepts barring climate change, rural respondents report more knowledge on the topic, as measured by responses that they know *'a lot' or 'a fair amount'* (see Table 2.5). For topics such as rewilding and sustainable/regenerative agriculture, a greater proportion of rural respondents and H&I respondents report that they know *'a lot'* or *'a fair amount'* than in the general Scottish population. This may be due to living in an area that is more likely to be impacted by these issues.

Table 2.5: Knowledge of environmental concepts

		A lot	A fair amount	Net: A fair amount or more	A little	Hardly anything, but I've heard of this	Hadn't heard about this before now	Net: A little or less
Climate change	***National (n=1,080)***	***30%***	***48%***	***78%***	***20%***	***2%***	*****	***22%***
	Rural boost (n=703)	*30%*	*51%*	*80%*	*17%*	*2%*	*	*20%*
	H&I boost (n=521)	*32%*	*47%*	*80%*	*18%*	*2%*	*1%*	*20%*
Net zero	***National (n=1,079)***	***14%***	***38%***	***52%***	***31%***	***13%***	***4%***	***48%***
	Rural boost (n=701)	*19%*	*40%*	*59%*	*29%*	*9%*	*3%*	*41%*
	H&I boost (n=519)	*12%*	*41%*	*53%*	*32%*	*10%*	*4%*	*47%*
Nature restoration	***National (n=1,076)***	***9%***	***31%***	***40%***	***38%***	***14%***	***8%***	***60%***
	Rural boost (n=703)	*13%*	*34%*	*47%*	*35%*	*12%*	*7%*	*53%*
	H&I boost (n=519)	*8%*	*34%*	*42%*	*43%*	*9%*	*6%*	*58%*
Rewilding	***National (n=1,076)***	***11%***	***30%***	***41%***	**30%**	***15%***	***14%***	***59%***
	Rural boost (n=703)	*15%*	*40%*	*55%*	*28%*	*11%*	*6%*	*45%*
	H&I boost (n=517)	*11%*	*37%*	*48%*	*29%*	*14%*	*9%*	*52%*
Sustainable/	***National (n=1,077)***	***7%***	***28%***	***35%***	***38%***	***18%***	***9%***	***65%***

regenerative agriculture	*Rural boost (n=703)*	*12%*	*31%*	*43%*	*38%*	*15%*	*4%*	*57%*
	H&I boost (n=518)	*8%*	*31%*	*39%*	*42%*	*13%*	*6%*	*61%*

Focus group findings

Focus groups with rural participants further probed their knowledge and familiarity with environmental concepts such as nature restoration and rewilding. While both mainland and coastal focus group participants were largely familiar with the terms, many were unaware of any differences between nature restoration and rewilding. Where differences were perceived, participants tended to associate reintroduction of species with rewilding but not restoration. More information about attitudes to nature restoration and rewilding in their local area is provided in Section 3.4, Support for government legislation and intervention.

In the focus groups, participants were also asked about other environmental concepts, including Scotland's rainforest, peatland issues, deer management, high nature value farming, Marine Protected Areas, and a new national park for Scotland. While participants tended to have some familiarity with terms/issues like Scotland's rainforest, peatland issues, deer management and high nature value farming, only those whose livelihoods or local areas were directly involved with the concepts indicated greater understanding beyond general recognition.

Likewise, with regards to Marine Protected Areas (MPAs), mainland participants were largely unaware or unsure about their existence in Scotland, although one participant expressed familiarity with proposals for Highly Protected Marine Areas (HPMAs):

> "I wasn't familiar with it as something that happened in this country. I suppose I've heard about it in the exotic places, but not locally." (Participant 3, Mainland)

> "[Responding to Participant 3] Yeah, I was going to ask, do we have any currently marine protected areas either in Scotland or the UK?" (Participant 5, Mainland)

> "I think the proposals that the Greens were trying to put through in the Scottish Parliament [around HPMAs] met with a lot of opposition because they were talking about a much bigger scale thing, weren't they?" (Participant 1, Mainland)

The coastal focus group cohort appeared more confident discussing Marine Protected Areas in Scotland; however, participants defaulted to discussion on proposals for Highly Protected Marine Areas. This suggests familiarity with recent proposals for HPMAs, rather than awareness of the MPA network

specifically. Further findings on their attitudes towards MPAs and HPMAs is discussed in Section 3, Support for government legislation and intervention.

Similarly, whilst all participants in the mainland focus group were aware of Scottish Government's plans to designate a new national park, the coastal participants were not as familiar with this

proposal. Both groups demonstrated various attitudes towards the idea depending on how relevant it felt to them (See Section 5, Reflections on stimuli).

3. Experience of climate change and human impacts

This section explores participants' experience of climate change and human impacts on the environment, featuring experience of human impacts, concern with climate change and its impact on various communities, and actions taken to reduce environmental impact. Key findings from the survey and focus groups are presented.

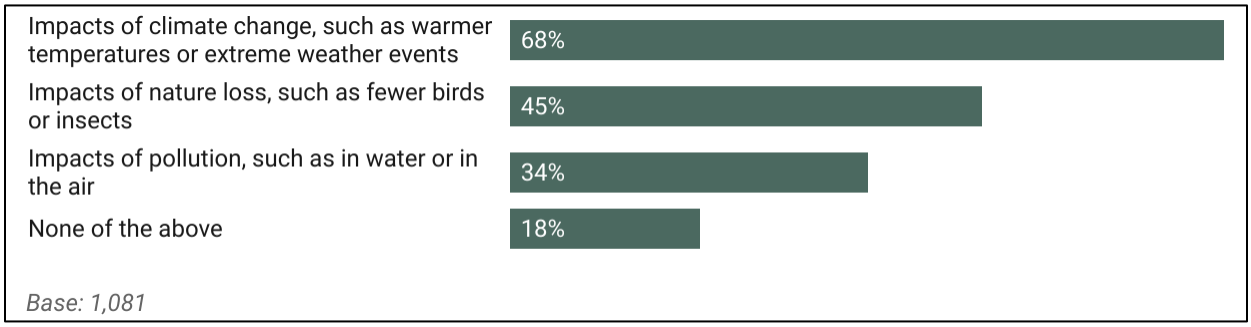
3.1 Experience of human impacts

National survey results

Respondents were surveyed about environmental changes they've noticed in their local area such as nature loss, climate change and pollution, asked, *'In your lifetime, have you noticed any of the following in your local area?'* (see Figure 3.1).

Over two-thirds (68%) of the public report having seen local impacts of climate change, with almost half (45%) observing impacts of nature loss and around one-third (34%) noticing impacts of pollution. A sizable minority (18%) of respondents have not noticed any of those environmental changes.

Figure 3.1: Noticed impacts of climate change, nature loss, and/or pollution in local area



Prominent differences in having noticed the impacts of these environmental changes in their local area are related to gender and age. Women are more likely than men to report that they noticed the impacts of climate change (73%; 63%) and nature loss (49%; 40%). Turning to age, members of the oldest generation (65+) are most likely to say they have seen the impacts of nature loss compared to all other age groups (56%; 42%), while the youngest generation (16 to 34) are more likely to say they have seen the impacts of climate change than the oldest (77%; 63%).

While geographic differences in response to this question are marginal, those in the Lothian Scottish Parliamentary region are more likely than those in most other regions to report that they have seen the impacts of pollution (48%).

Relationship with the natural environment also influences responses, particularly around seeing the local impacts of nature loss and pollution. Those connected to nature are more likely to see nature loss (51%; 24%) and impacts of pollution (37%; 23%) than those who do not feel connected to nature. Similarly, those who visit nature at least once a week are more likely to see impacts of nature loss (51%; 37%) and the impacts of pollution (39%; 27%) than those who visit nature less frequently, as are those who consider themselves informed about environmental issues compared to those who do not consider themselves informed (nature loss - 53%; 27%), (pollution - 37%; 25%). In contrast, those who worry about the natural environment *'often'* or *'occasionally'* are more likely to note the impacts of climate change, nature loss, and pollution than those who *'rarely'* or *'never'* worry.

Subsample differences

There is little difference in the percentage of each sample that has noticed the impacts of nature loss, climate change, or pollution in their local area, varying by just a few percentage points (see Table 3.1). This may indicate that seeing human impacts on the environment is more closely linked to proximity to nature and familiarity with environmental issues, rather than locale.

Table 3.1: Noticed impacts of climate change, nature loss, and/or pollution

	National (n=1,081)	Rural boost (n=705)	H&I boost (n=523)
	%	%	%
Impacts of nature loss, such as fewer birds or insects	45	47	46
Impacts of climate change, such as warmer temperatures or extreme weather events	68	66	65
Impacts of pollution, such as in water or in the air	34	32	32
None of the above	18	22	21

Focus group findings

When asked about perceptions or experiences of climate change, both mainland and coastal focus group participants commented on weather events and patterns:

> “I would say torrential rain, in particular. Like we used to have lots of rain anyway, but now there's days where it comes down and you're getting what you get in a week in a day or two days. Definitely seeing more flooding.” (Participant 5, Mainland)

> “It changes a lot more frequently I find, as well. I mean, I just think today I've certainly seen every season. I've seen every season about twice.” (Participant 2, Mainland)

> “Probably warmer winters. We haven't really had much snow. Perhaps it's just childhood memories, but you remember a lot of snowy winters and cold winters. We haven't had any cold winters out here for years.” (Participant 6, Coastal)

> “Certainly with high winds and the rough seas…a lot of the time the seas have been so rough, it's actually come up over the sea wall.” (Participant 10, Coastal)

Participants also noted changes in their local flora and fauna:

> “Salmon used to literally jump out the river and you could catch them. Like they still jump out the river, but not in those numbers. Now you're lucky to see the salmon jumping even in spawning season.” (Participant 5, Mainland)

> “There's an awful lot of trees and a lot of forests that aren't there anymore, or they've got very few trees left.” (Participant 4, Mainland)

> “Well, we get a lot of geese on [our island] over the years and it annoys the farmers because it wrecks their fields. But they're all talking about how there's been a big drop off this year in the number of geese coming.” (Participant 9, Coastal)

Whilst many were speaking about changes observed over decades, even the youngest participant noted biodiversity loss in their local area:

> "I can't speak for a long time, but even I've noticed there's a lot less butterflies and bees and stuff like that from when I was a child." (Participant 7, Coastal)

And whilst reflecting on a graph depicting findings from the National survey about noticing climate change, nature loss and pollution in respondents' local areas (see Figure 3.1), some participants in the mainland focus group were struck by only around 1/3 of respondents reporting noticing the effects of pollution:

> "I was surprised that was that low. I would have thought a lot more people would have seen that. More pollution in places, just in rivers or beaches that you see. I've certainly noticed that a lot." (Participant 2, Mainland)

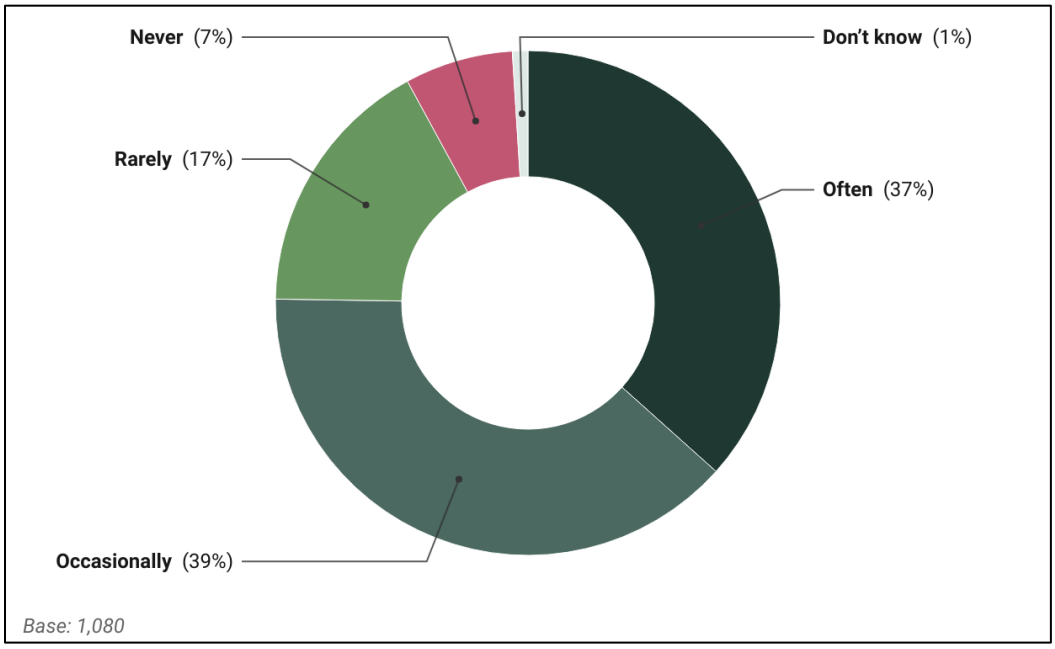
3.2 Concern with the natural environment

National survey results

The survey also inquired about respondents' frequency of worry with regards to the environment, asking, *'How often, if at all, do you worry about the nature environment (e.g. impacts of climate change, nature loss, etc.)?'* (see Figure 3.2).

Over three in four (76%) respondents report they worry at least '*occasionally'* about the environment. This is evenly split between those who worry *'often'* and those who worry *'occasionally'*, with well over a third claiming they are '*often'* (37%) or *'occasionally'* (39%) worried about these issues. A small minority worry *'rarely'* or less, with 17% indicating that they worry *'rarely'* and 7% of respondents indicating they '*never'* worry about the natural environment.

Figure 3.2: Concern with the natural environment



Concern with the natural environment is relatively stable across a host of demographics and geographies. However, gender differences are significant. Women are more likely to worry at least occasionally about the natural environment than men (83%; 69%).

In this case, attitudinal factors are more salient. Those who feel connected to the natural environment are more likely to worry at least occasionally than those who do not feel connected (83%; 51%), as are those who visit nature at least once a week compared to those who visit less frequently (81%; 70%). Those who think they are informed are also more likely to worry at least occasionally than those who are not informed (84%; 58%).

Subsample differences

Across subsamples, residents of the H&I Scottish Parliamentary Region show slightly more worry about the natural environment than the national sample or those in rural areas (see Table 3.2). About eight in ten (81%) of those in the H&I worry *'often'* or *'occasionally'*, compared to three in four of those in rural areas (75%) or across Scotland (76%).

Table 3.2: Concern with the natural environment

	National (n=1,080)	Rural boost (n=705)	H&I boost (n=523)
	%	%	%
Often	37	35	38
Occasionally	39	39	42
NET: Often/Occasionally	76	75	81
Rarely	17	17	14
Never	7	8	5
NET: Rarely/Never	23	25	19
Don't know	1	*	*

Focus group findings

Moreover, in the coastal focus group, when participants were asked to provide one word to describe the state of Scotland's natural environment, three of five gave words which indicated concern:

> "Declining" (Participant 8, Coastal)

> "Desperate" (Participant 9, Coastal)

> "Precarious" (Participant 10, Coastal)

In contrast, participants in the mainland focus group, used positive descriptors:

> "I think it's quite good." (Participant 3, Mainland)

"Generally good." (Participant 5, Mainland)

"Depends where we're comparing it to. Somewhere South of the border? Yes, I think it's absolutely wonderful." (Participant 4, Mainland)

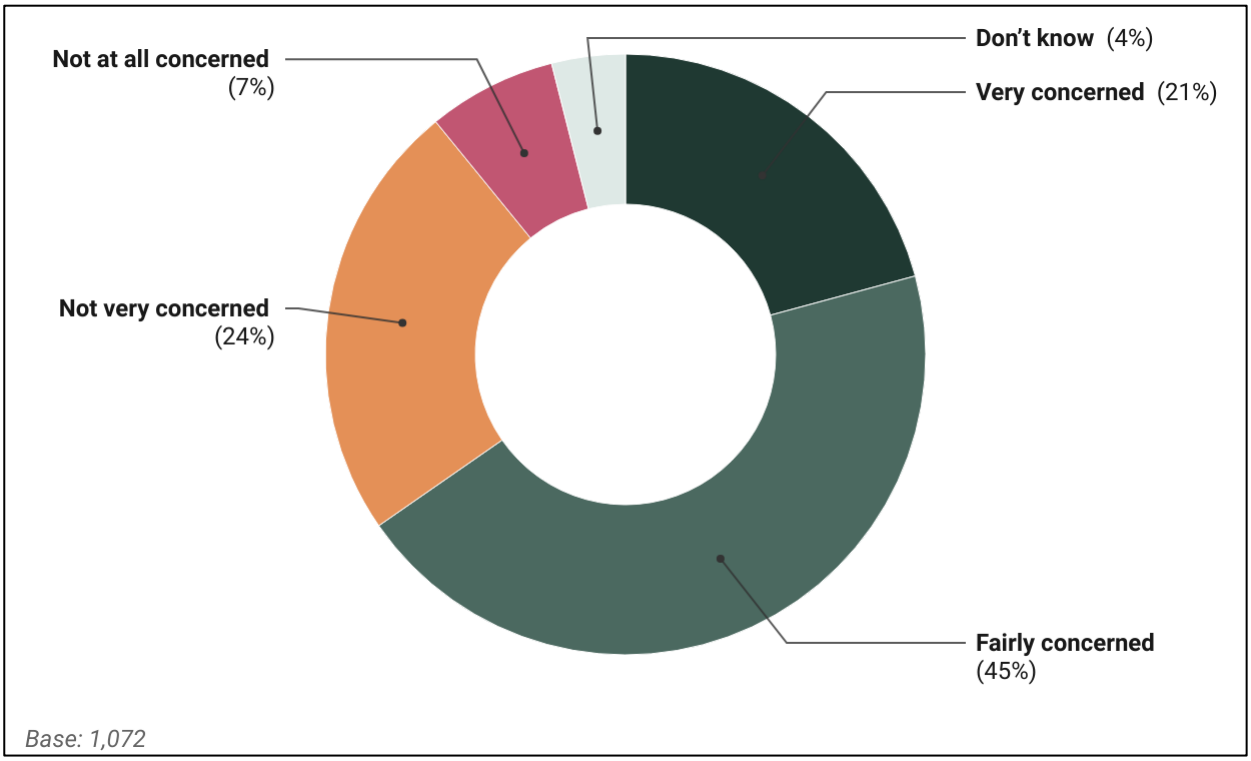
3.3 Concern with the impact of climate change on food production in Scotland

National survey results

Survey respondents were then asked about a particular climate impact in Scotland; specifically, '*How concerned, if at all, are you about the impact of climate change on food production in Scotland?*' (see Figure 3.3).

Around two-thirds (66%) are either '*fairly concerned*' (45%) or *'very concerned'* (21%) about this, whilst about one-quarter (24%) report being *'not very concerned'*, and 7% select they are '*not at all concerned'* with this issue.

Figure 3.3: Concern with the impact of climate change on food production in Scotland



Demographic and geographic differences in concern with the impact of climate change on food production in Scotland mirror those for concern with the natural environment as a whole. In particular, this varies by gender, with women reporting higher levels of concern (*'very concerned'* or *'fairly concerned'*) (74%) than men (57%).

Those connected to the natural environment (72%) are also more likely to report concern with the impact of climate change on food production than those who do not feel connected (48%), as are those who visit nature once a week or more (69%) compared with those who visit less frequently (61%).

Subsample differences

Concern with the impact of climate change on food production in Scotland remains relatively constant across the rural sample and H&I sample, varying by just a few percentage points from national estimates (see Table 3.3).

Table 3.3: Concern with the impact of climate change on food production in Scotland

	National (n=1,072)	Rural boost (n=702)	H&I boost (n=523)
	%	%	%
Very concerned	21	20	21
Fairly concerned	45	44	42
NET: Concerned	66	64	63
Not very concerned	24	25	23
Not at all concerned	7	7	11
NET: Not concerned	31	33	35
Don't know	4	3	2

Focus group findings

Coastal focus group participants emphasised the importance of local food production in Scotland. Rather than mentioning the impacts of climate change on farming, they discussed the need to balance the importance of food production and the importance of reducing the environmental impacts of farming:

> "I think we desperately need farmers. We need to keep production of food going. But you're right, they do have to be helped to make it more environmentally friendly. And the bigger the farm, the more mechanical. I can't count the amount of tractors and mechanical vehicles that are used in one field here because they're always in and out fields for various reasons. The amount of diesel these things use up and you know the pollution into the air, but we can't do without farms and we need farming land. So we need to find a way to balance it out." (Participant 10, Coastal)

Action that reduces the environmental impacts of farming was also seen as beneficial to local food production and food quality. Crofting was seen as a locally-sourced alternative to food produced and/or transported from mainland Scotland:

> "We're reliant on food coming from the mainland…so you're more reliant on your transport, which is unreliable. And more food miles. Whereas if crofting was encouraged with
>
> funding coming into it to help people get back into doing it, you're reducing your food miles, you're having fresher produce, you're becoming more sustainable as an island than we've kind of drifted into, being reliant on the mainland." (Participant 8, Coastal)

More on individual's attitudes towards intervention to make farming more sustainable is provided in Section 4.5, Support for government intervention.

3.4 Vulnerability of communities to climate change

Survey findings

Survey respondents were asked about how at risk they perceive different areas to be to the effects of climate change. This enquired, *'How vulnerable, if at all, do you believe the following types of communities are to the effects of climate change?'* (see Figure 3.4).

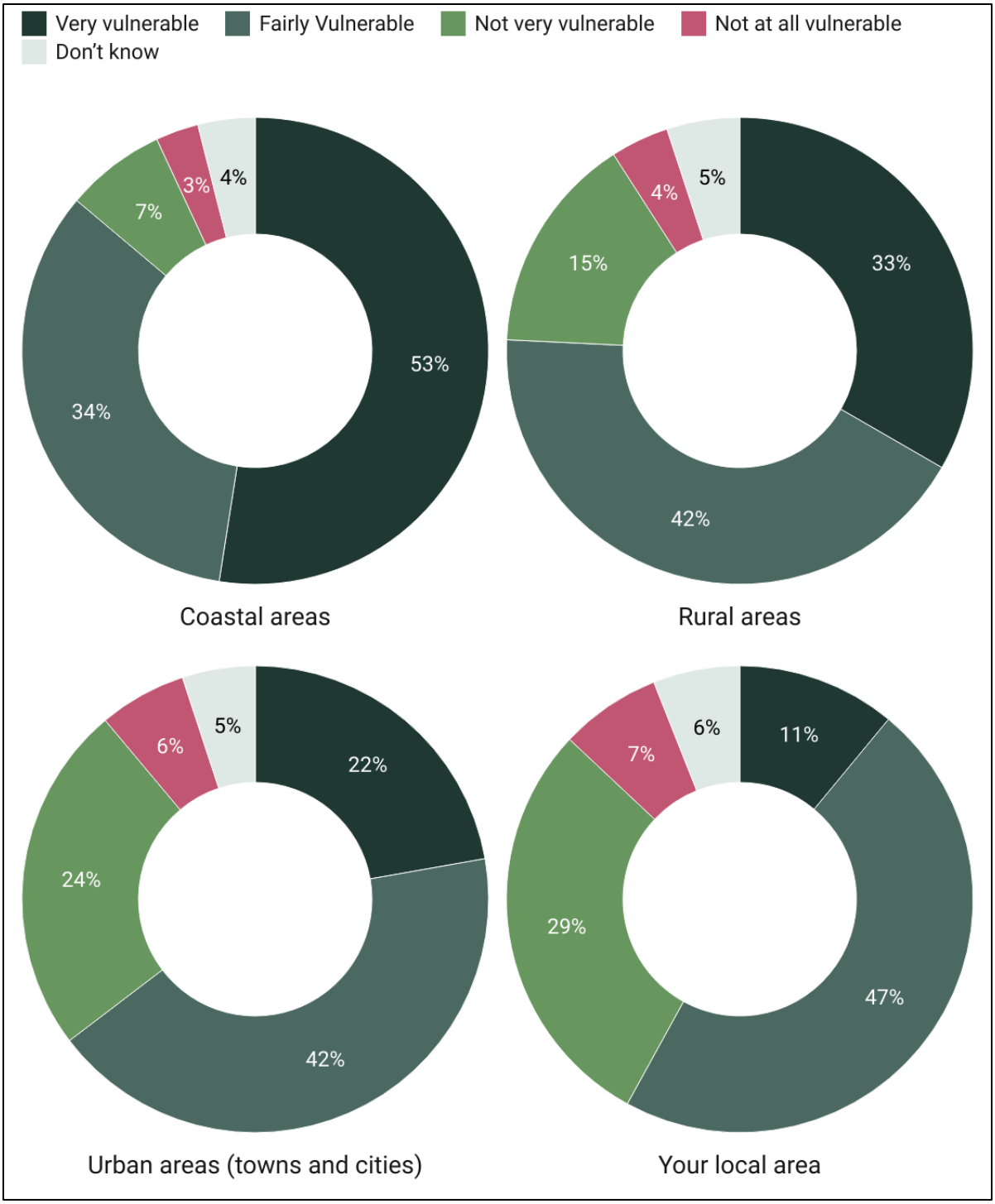
Coastal communities are most widely considered to be vulnerable, with 87% of respondents perceiving coastal areas to be vulnerable to the effects of climate change. Over half (53%) select *'very vulnerable'* and an additional one-third (34%) believe these areas are '*fairly vulnerable'* to experiencing climate change impacts. Only 3% of respondents report that coastal areas *are 'not at all vulnerable'*.

Rural communities are cited as being second most vulnerable: 75% of respondents agreed they are vulnerable to some degree. One-third (33%) of all respondents believe rural areas are '*very vulnerable',* and 42% believe they are '*fairly vulnerable'* areas. 15% report that rural areas are '*not very vulnerable'*, and only 4% select that these areas are '*not at all vulnerable'*.

Almost two-thirds (64%) of respondents believe urban areas are vulnerable to the effects of climate change, 22% selecting '*very vulnerable'* and 42% selecting *'fairly vulnerable'*. Almost one-fourth (24%) report these areas are *'not very vulnerable'* with 6% believing urban areas *are 'not at all vulnerable'*.

Interestingly, '*Your local area*' has the lowest levels of perceived vulnerability compared with all areas surveyed. Still, a majority of respondents (58%) believe their area is vulnerable to the effects of climate change. About one in nine (11%) respondents believe their local area is *'very vulnerable'*, and a little over one-third (36%) do not believe their area is vulnerable to the effects of climate change. About 1 in 14 respondents (7%) selected their local area is '*not at all vulnerable',* which is greater than the proportion of those which selected this option for all other areas.

Figure 3.4: Vulnerabilities of specific areas to the effects of climate change



Across all areas, women are more likely to perceive vulnerability (*'very vulnerable*' or *'fairly vulnerable'*) to the effects of climate change than men.

Additionally, those in social grades ABC1 are more likely to think coastal areas (89%; 83%) and rural areas (78%; 71%) are vulnerable to the effects of climate change than those in grades C2DE. In addition, those in urban areas are also more likely to think that rural areas are vulnerable to the effects of climate change (77%; 69%).

Those who feel connected to the natural environment, those who think they are informed about issues affecting the natural environment, and those who worry *'often'* or *'occasionally'* about the natural environment are also more likely than their counterparts to think each area is vulnerable to the effects of climate change. Interestingly, frequency of interaction with nature impacts feelings of vulnerability for one area – your local area – where those who visit nature once a week or more are more likely to believe their local area is vulnerable to the effects of climate change in comparison to those who visit nature less frequently (62%; 53%).

Subsample differences

Looking at the results for all areas, there are some observable differences by sub-sample (see Table 3.4). In particular, a lower percentage of rural boost respondents believe that coastal areas are vulnerable to the effects of climate change (81%) than observed in the general sample (87%) or in the H&I boost (86%). For urban areas and rural areas, reported vulnerability is also lower amongst the rural and Highland and Islands boosts, with 56% and 61% respectively believing that urban areas are vulnerable compared to 64% of the general Scottish population and 70% of each boost thinking rural areas are vulnerable compared to 75% of Scottish residents.

Table 3.4: Vulnerabilities of specific communities to the effects of climate change

		Very vulnerable	Fairly Vulnerable	NET: Vulnerable	Not very vulnerable	Not at all vulnerable	NET: Not vulnerable	Don't know
		%	%	%	%	%	%	%
Your local area	***National (n=1,077)***	***11***	***47***	***58***	***29***	***7***	***36***	***6***
	Rural boost (n=699)	*13*	*43*	*56*	*30*	*10*	*40*	*4*
	H&I boost (n=516)	*15*	*46*	*60*	*24*	*12*	*36*	*4*
Coastal areas	***National (n=1,041)***	***53***	***34***	***87***	***7***	***3***	***10***	***4***
	Rural boost (n=677)	*52*	*29*	*81*	*10*	*4*	*15*	*4*
	H&I boost (n=495)	*56*	*29*	*86*	*8*	*3*	*11*	*3*
Urban areas (towns and cities)	***National (n=1,038)***	***22***	***42***	***64***	***24***	***6***	***31***	***5***
	Rural boost (n=675)	*18*	*38*	*56*	*31*	*8*	*39*	*5*
	H&I boost (n=496)	*18*	*42*	*61*	*28*	*7*	*35*	*5*
Rural areas	***National (n=1,041)***	***33***	***42***	***75***	***15***	**4**	**19**	***5***
	Rural boost (n=671)	*29*	*40*	*70*	*21*	*5*	*26*	*5*
	H&I boost (n=493)	*29*	*41*	*70*	*17*	*10*	*26*	*4*

Focus group findings

While focus group content did not specifically explore the vulnerabilities of different areas to climate change, coastal participants raised concern with the impacts of climate change on island and coastal communities. One coastal participant cited significant concern for potentially devastating impacts for their community:

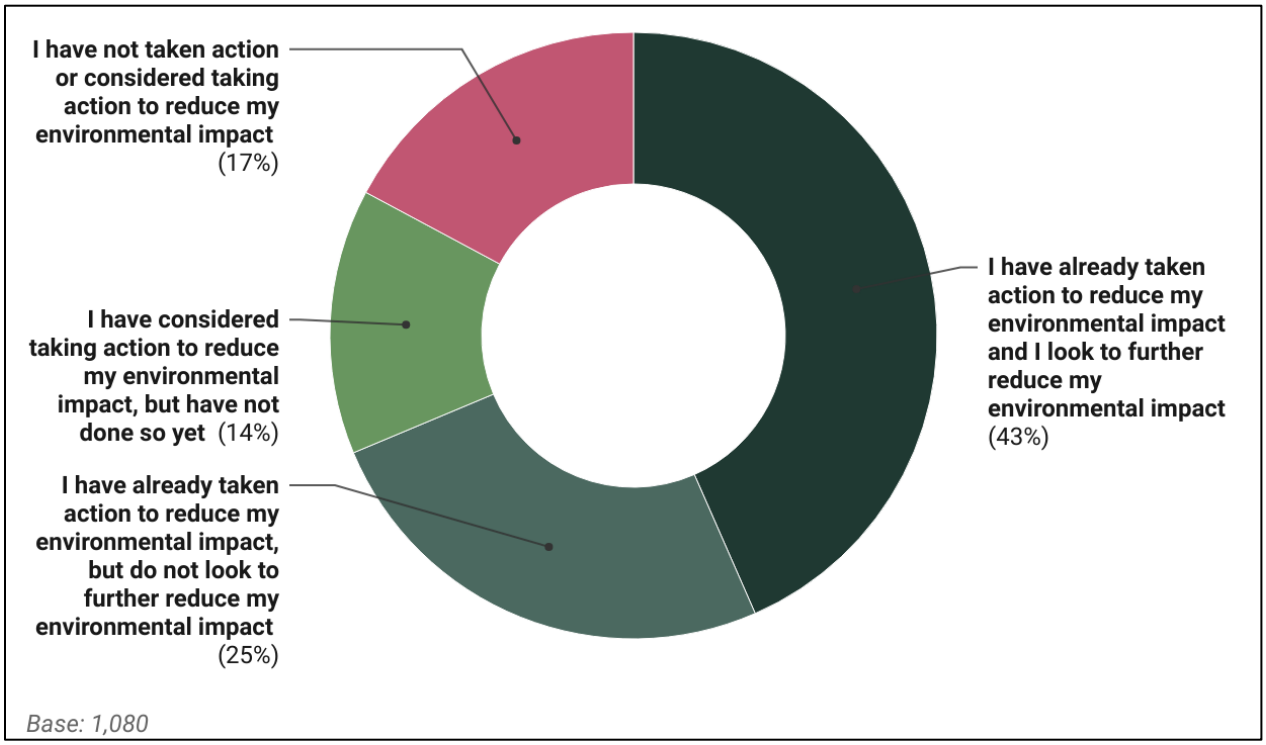
> "And [my island] potentially, if the sea levels change, could be split in three. and, you know, sometimes even now when there's high tides, high spring tides, when a lot of weather… part of [the island] is cut off from the rest of it, because of the tides. And you don't see [my] council taking any regard of that or Scottish Government. And I think there's something about, you feel that they're kind of depopulating or want to depopulate the outer isles." (Participant 9, Coastal)

3.5 Action to address climate change

National survey results

When asked, *'Have you taken or considered taking action to reduce your environmental impact, such as changing how you travel, what you eat or what you buy*?' around seven in ten (69%) of respondents report they have taken action to reduce their environmental impact (see Figure 3.5). Of those who indicate having taken action to reduce their environmental impact, many report that they continue looking to reduce their impact further (43%), while only one in four (25%) report that they do not look for ways to continue reducing their environmental impact. Of the 31% who have not taken action, this is evenly split between those that have considered taking action but have not done so yet (14%) and those that have not considered taking action to reduce their environmental impact (17%).

Figure 3.5: Taken or considered taking action to address climate change



Some demographics – such as women and those in higher social grades – are more likely to have taken action to reduce their environmental impact and look to further reduce their environmental impact. Specifically, women are more likely to have taken action and look to take more action to reduce their environmental impact than their male peers (47%; 39%). In contrast, men are more likely to have neither taken action to reduce their environmental impact nor considered taking action to do so (22%; 13%). Similarly, those in social grades ABC1 are more likely to have taken action to address their environmental impact and look to take further action than those in C2DE (47%; 38%).

For geography, neighbourhood and Scottish Parliament Region are prominent:

- **Neighbourhood:** Those in the most affluent neighbourhoods (SIMD 5) are more likely to have taken action to reduce environmental impact and look for further opportunities to reduce their environmental impact (52%) than those in SIMD 1 and 2 (38%).

- **Scottish Parliamentary Region:** Those in the H&I (75%) and Lothian (75%) Scottish Parliament Regions are more likely to have taken action to reduce their environmental impact than those in Central Scotland (60%).

There are also strong relationships between having taken action to reduce one's environmental impact and a host of other variables, including connection to nature, engagement with nature, concern with the natural environment, and knowledge of environmental issues. Those that feel more connected to nature are more likely to have taken action to reduce their environmental impact (76%; 43%), as are those that visit nature more than once a week compared to those who visit nature less than once a week (78%; 56%). In addition, those that worry about the environment *'often'* or *'occasionally'* are more likely to have taken action to reduce their environmental impact than those that worry *'rarely'* or *'never'* (79%; 37%), and those who think they are informed about issues affecting the natural environment are more likely to have taken action than those that do not feel informed (75%; 55%).

Subsample differences

Across samples, those in the Rural and H&I boosts show a slightly higher tendency towards having taken action to reduce their environmental impact (see Table 3.5). Almost three in four of those in H&I (73%) and rural areas (72%) have taken action, falling to 69% of the general population.

Table 3.5: Taken or considered taking action to address climate change

	National (n=1,080)	Rural boost (n=703)	H&I boost (n=523)
	%	%	%
I have already taken action to reduce my environmental impact and I look to further reduce my environmental impact	43	46	44
I have already taken action to reduce my environmental impact, but do not look to further reduce my environmental impact	25	26	29
NET: Taken action	69	72	73
I have considered taking action to reduce my environmental impact, but have not done so yet	14	10	13

I have not taken action or considered taking action to reduce my environmental impact	17	18	14
NET: Not taken action	31	28	27

Focus group findings

While focus group participants did not directly discuss actions they have taken to reduce their environmental impacts, they indicated an awareness of how they/their communities impact the environment and identified potential pathways for mitigation.

For example, when discussing the environmental impacts from farming, one participant, who earlier identified themself as vegan, touted lifestyle and diet changes as a way of reducing one's individual greenhouse gas emissions:

> "A lot of pollution comes from farming, especially livestock. If we were all to stop eating meat, it would be possible to farm in a much more sustainable environmentally friendly manner. And then less methane produced with less waste." (Participant 1, Mainland)

Participants also highlighted structural actions needed to ensure individuals, particularly future generations, are educated about the impact they can have on the environment and take on this responsibility:

> "I don't know how you do it, but there has to be personal responsibility." (Participant 3, Mainland)

> "Educate people, get into the schools, teach the children about the evils of throwing away rubbish and fly tipping, and they'll go home and they talk to their parents." (Participant 1, Mainland)

Many cited the role of larger actors, such as businesses, local councils, and central government in reducing their environmental impact:

> “We've talked quite a lot about personal responsibility, which I think is a big part, but companies as well don't just get off scot-free with their stuff. Large scale companies really need to look at what they're doing to help mitigate these sorts of things as well.” (Participant 5, Mainland)

> “I don't get the same feeling that central government or councils are doing that much. Now there might be many reasons for that, but I don't think, you know - they talk about it. They talk the talk, but I don't think they walk the walk.” (Participant 9, Coastal)

Often, the actions of these larger actors were seen as either counterintuitive to environmental protection, or as frustrating barriers that hinder action to protect the natural environment:

> “The island has got [many] distilleries already and there's already planning for permission for at least another three. So a lot of the land that's wild already is getting taken to be building more distilleries, bringing more tourists, [increasing] need for more housing. So a lot of the, plants and things, a lot of the space is being taken out for new developments.” (Participant 7, Coastal)

> “On [my island] here, we can't do anything with plastics. And you know, there's a lot of plastic, and there's somebody on the island who wants to do plastic recycling. But the council are making that extremely difficult for them to get that project off the ground. And it all goes [to another island] in a boat to get burnt.” (Participant 9, Coastal)

On the whole, participants felt everyone has a part to play in protecting and improving the environment, and many emphasised ongoing community action along with the importance of not overlooking what may seem on the surface to be small actions:

> “I think it's clear that there are a lot of good people trying to do things in small ways and are self-led, group led.” (Participant 9, Coastal)

> “I remember something that the cycling coach said after the British cyclists improved greatly and he said something along the lines of he looked for tiny little benefits, tiny little changes to be made that would improve the team's performance and made those and they all accumulated

to make a great improvement. So I don't think things have to be massive things that each person does, but something of that sort of message could be given, I think." (Participant 3, Mainland)

4. Attitudes

This chapter presents findings related to attitudes towards action to protect the environment, across the survey and focus groups.

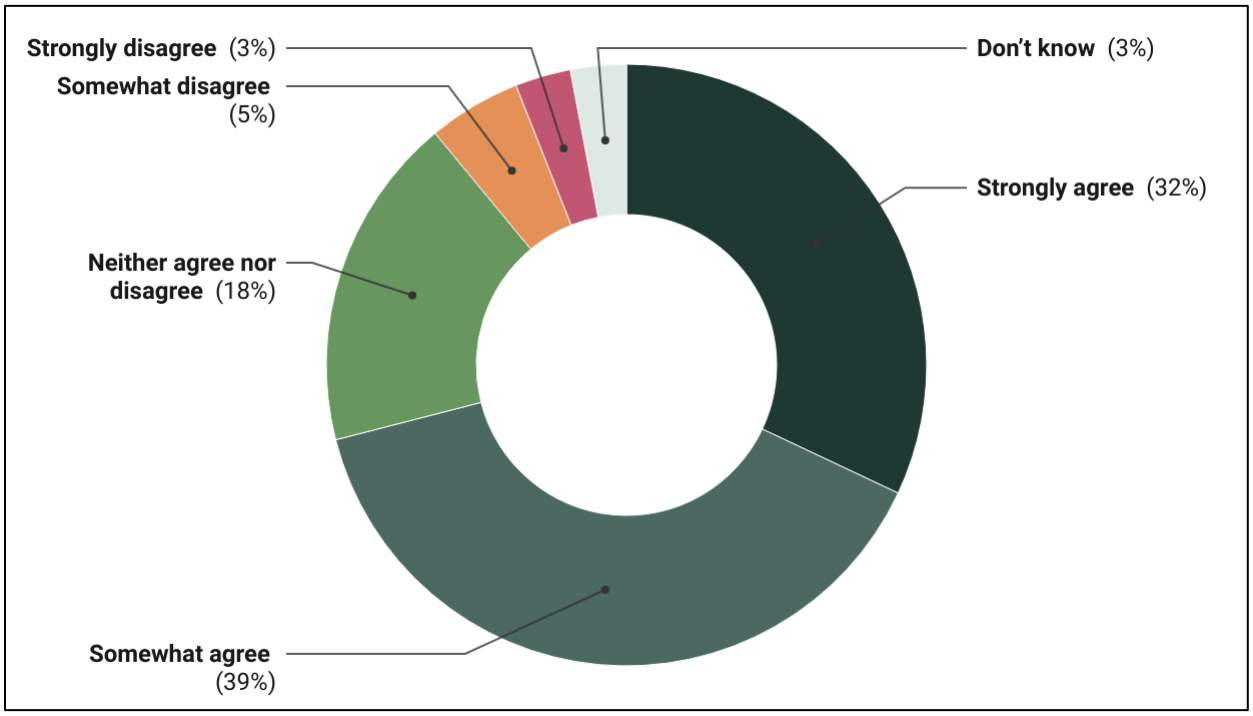
4.1 Action to protect the environment may bring other benefits

National survey results

Respondents were first asked, *'To what extent do you agree or disagree that action to protect the environment may bring other benefits to your local area?'* (see Figure 4.1).

Nearly three-fourths (72%) of respondents agree action to protect the environment could bring benefits to their community, with almost one-third (32%) *'strongly agreeing'* with the sentiment and over one-third *(39%) 'somewhat agreeing'*. 18% of respondents are neutral towards the idea, and the remaining 8% disagreed, with 3% selecting they *'strongly disagree'* and 5% selecting that they *'somewhat disagree'* that action to protect the environment may bring other benefits to their area.

Figure 4.1: Action to protect the environment may bring other benefits to your local area



Age and gender each factor into respondents' beliefs about whether or not action to protect the environment could bring other benefits to their local area, with those in the 16 to 34 age group most likely to agree with this sentiment relative to all other age bands (82%; 67%). Additionally, women are more likely to agree that action to protect the environment may bring other benefits to their local area than men (75%; 68%).

Perhaps unsurprisingly, those who report having a connection to the environment (77%) as well as those who visit nature at least once a week (75%) are more likely to agree there are additional potential benefits to improving the environment than those who report not feeling connected to the environment (52%), or who only interact with nature several times a month or fewer (67%).

Subsample differences

Between samples, both the rural (63%) and Highland and Island boosts (68%) are less likely to agree that action to protect the environment may bring other benefits to their area than the national population as

a whole (72%) (see Table 4.1). Rural residents were most likely to disagree that environmental protection could bring other benefits to their area.

Table 4.1: Action to protect the environment may bring other benefits to your local area

	National (n=1,078)	Rural boost (n=704)	H&I boost (n=523)
	%	%	%
Strongly agree	32	31	36
Somewhat agree	39	33	32
NET: Agree	72	63	68
Neither agree nor disagree	18	18	22
Somewhat disagree	5	7	2
Strongly disagree	3	7	4
NET: Disagree	8	14	6
Don't know	3	5	4

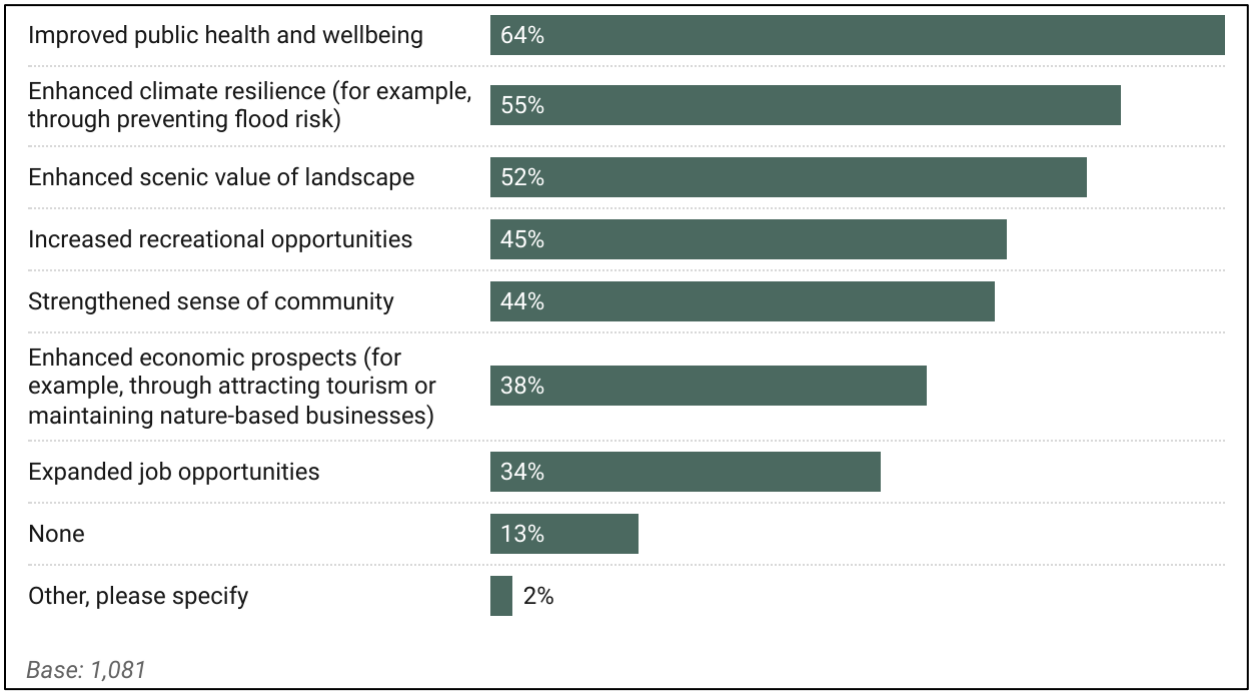
4.2 Potential benefits of action to protect the environment

National survey results

Survey respondents were asked, '*What benefits, if any, do you believe action to protect the environment may have on your local area?'* (see Figure 4.2).

'Improved public health and wellbeing' is the most selected potential benefit, with nearly two-thirds (64%) of respondents selecting this option. Additionally, over half of respondents believe both *'climate resilience'* and *'scenic landscape'* value could be enhanced as a result of environmental protection, at 55% and 52%, respectively. 13% of respondents believed that *'none'* of the benefits listed would come from action to protect the environment in their local area; the complete list of which, along with the proportion of respondents who selected them, is demonstrated in Figure 4.2.

Figure 4.2: Potential benefits of action to protect the environment on your local area



Age has an integral impact on perception of benefits from environmental action on your local area. Young people (those 16 to 34) are more likely to believe action to the environment may bring almost all of these benefits to their local area than older generations.

In addition, households with children are more likely to perceive potential for some of these benefits in their local area than those without children, including that action to protect the environment will *'expand job opportunities'* (43%; 31%), *'strengthen sense of community'* (52%; 41%), and *'increase recreational opportunities'* (53%; 42%).

Geography, specifically rurality, also influences belief in some benefits to the local area from environmental action. Those in rural areas are more likely to believe that action to protect the environment will *'enhance climate resilience'* in their local area (62%; 52%), while those in urban areas are more likely to believe that action could *'improve public health and wellbeing'* in their local area (67%; 54%).

Across all benefits, those that feel connected to nature and those that think they are informed on issues affecting the natural environment are more likely to believe that action to protect the environment will result in most benefits for their local area than their counterparts.

Subsample differences

In general, individuals in the rural and in the H&I samples are more sceptical that action to protect the environment will have some of these benefits on their local area, evidenced by lower rates of selecting each benefit (see Table 4.2). This is particularly noticeable across the following benefits: *'improving public health and wellbeing'*, *'strengthening sense of community'*, *'increasing recreational opportunities'*, and *'enhancing scenic value of landscape'*.

For one benefit – *'expanding job opportunities'* – rural residents demonstrate less belief that action to protect the environment will result in this in their local area, selected by just 30% of the rural sample, compared with 36% of the H&I sample and 34% of the national sample.

Table 4.2: Potential benefits of action to protect the environment on your local area

	National (n=1,081)	Rural boost (n=705)	H&I boost (n=523)
	%	%	%
Expanded job opportunities	34	30	36
Enhanced economic prospects (for example, through attracting tourism or maintaining nature-based businesses)	38	36	40
Enhanced climate resilience (for example, through preventing flood risk)	55	54	52
Improved public health and wellbeing	64	52	59
Strengthened sense of community	44	38	36
Increased recreational opportunities	45	35	32
Enhanced scenic value of landscape	52	45	44
Other, please specify	2	4	2
None	13	19	14

Focus group findings

Focus group participants explained ways that action to protect the environment could benefit their local area, particularly through the avenues of improved mental and physical health within their community:

> "When they cleaned up [my local] Beach, you see a lot more people in the summer out with their families. So there's huge health benefits from that. (Participant 8, Coastal)

> "Well, presumably it, you know, if you make pollution less, the air itself will be cleaner, the water will be cleaner, so you'll be healthier. And I imagine you might encourage people to come down to the beach a bit more if they could have a swim in clean water." (Participant 3, Mainland)

> "Less forever chemicals in people, hopefully. Less asthma." (Participant 4, Mainland)

Other benefits, including economic benefits and job opportunities were mentioned, although participants emphasised these actions can also come with drawbacks which need to be considered:

> "I think you always have to be careful of the human element when we come to this because obviously people do rely on these things as well. They're going to be talking about fishing, oil development even - it's all going to cost jobs to preserve these things or regenerate these things. And obviously there's jobs involved in doing so, but they're different jobs." (Participant 5, Mainland)

4.3 Perception of business sectors

National survey results

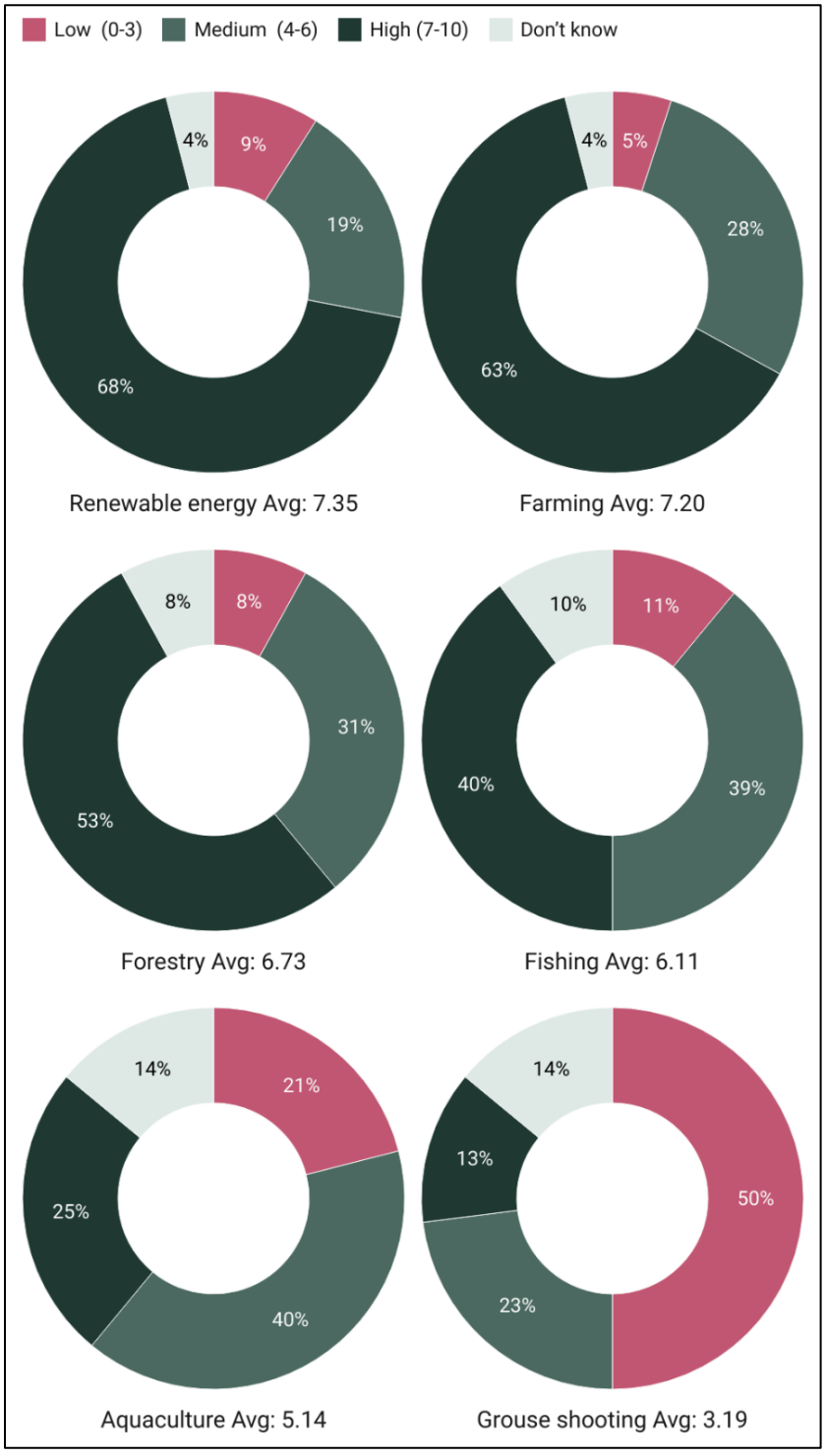
Respondents were then surveyed on their perceptions of different business sectors related to the environment, asked, '*On a scale of 0 to 10, with 0 being 'Extremely negative' and 10 being 'Extremely positive', how do you feel about the following business sectors?*' (see Figure 4.3)

Renewable energy receives the highest average score, 7.35, with over two-thirds (68%) of respondents giving this sector a '*high'* score (greater than or equal to 7). It should be noted the renewable energy sector also receives the smallest proportion of '*medium'* scores (4-6), but not of '*low'* scores (0-3).

Farming receives the second-most positive rating, with an average of 7.20 and 63% giving the sector a '*high'* score. Over half of respondents (53%) rate forestry highly, receiving an average score of 6.73. Fishing receives the fourth highest average score, 6.11, with 40% of respondents giving it a '*high'* score.

Aquaculture also receives an average score in the '*medium'* range, at 5.14, with only 25% of respondents rating it highly. Grouse shooting receives the lowest score of all listed sectors, 3.19, with only 13% of respondents giving it a '*high'* rating.

Figure 4.3: Perception of business sectors



Barring farming and renewable energy, men rate each business sector higher than women. Comparatively, women are more likely to say they don't know how they feel about each business sector than men.

Other demographic differences pertain to a single business sector. For instance, the oldest generation (65+) feel more positive than those 16 to 34 or 35 to 44 about the forestry sector (7.19; 6.30; 6.66). Additionally, those in social grades ABC1 feel more positive about the renewable energy sector than those in grades C2DE (7.54; 7.10).

Geographic differences are also notable for specific industries:

- **Rurality:** Those in rural regions are more positive about farming (7.58; 7.09) and grouse shooting (3.89; 3.00) sectors than those in urban regions. Those in remote rural regions are most positive about fishing, with 63% of those in remote regions giving the fishing sector a *'high'* positivity score.
- **Scottish Parliament Region:** Those in the H&I and North East Scotland are more positive about farming (7.85; 7.41) and grouse shooting (4.15; 3.83) than those in many other regions.

Those who feel connected to the natural environment (7.50) or that worry at least *'occasionally'* about the natural environment (7.71) are more positive about the renewable energy sector than their counterparts – those who do not feel connected to the natural environment (6.70) and those that worry *'rarely'* or less (6.11).

Subsample differences

Small differences in average score can be seen across samples (see Table 4.3). For farming, forestry, and grouse shooting, those in the rural and H&I boosts assign higher average scores to these sectors than those in the general Scottish population. However, for the aquaculture sector, those in both boosts assign slightly lower average scores than the general population, and for renewable energy, those in the rural boost assign slightly lower average scores than those in the H&I boost or in the general population.

Perhaps related to proximity to a coast and fishing activity, those in rural areas give lower average scores to fishing (6.00) than those in the other samples, but those in the H&I give higher average positivity scores to the fishing industry (6.27) than those in the rural boost or general population (6.11).

Table 4.3: Perception of business sectors

		Low (0-3)	Medium (4-6)	High (7-10)	Don't know	Avg.
		%	%	%	%	
Farming	***National (n=1,076)***	***5***	***28***	***63***	***4***	***7.20***
	Rural boost (n=700)	*6*	*26*	*66*	*3*	*7.32*
	H&I boost (n=522)	*6*	*25*	*65*	*5*	*7.35*
Forestry	***National (n=1,075)***	***8***	***31***	***53***	***8***	***6.73***
	Rural boost (n=701)	*6*	*29*	*59*	*5*	*6.96*
	H&I boost (n=520)	*8*	*24*	*61*	*7*	*7.06*
Fishing	***National (n=1,076)***	***11***	***39***	***40***	***10***	***6.11***
	Rural boost (n=701)	*16*	*38*	*40*	*6*	*6.00*
	H&I boost (n=521)	*15*	*34*	*45*	*7*	*6.27*
Aquaculture	***National (n=1,079)***	***21***	**40**	***25***	***14***	***5.14***
	Rural boost (n=701)	*25*	*41*	*25*	*9*	*5.03*
	H&I boost (n=522)	*35*	*30*	*27*	*8*	*4.62*
Grouse shooting	***National (n=1,076)***	***50***	***23***	***13***	***14***	***3.19***
	Rural boost (n=704)	*47*	*25*	*19*	*9*	*3.63*
	H&I boost (n=522)	*53*	*21*	*16*	*11*	*3.32*
Renewable energy	***National (n=1,076)***	***9***	***19***	***68***	***4***	***7.35***
	Rural boost (n=700)	*10*	*21*	*66*	*3*	*7.13*
	H&I boost (n=522)	*7*	*21*	*68*	*4*	*7.37*

Focus group findings

Throughout each focus group, participants reflected on the impacts of various industries on the environment. Participants generally thought positively of farming/crofting, forestry, and fishing, citing to their close ties to these industries in their communities and economic struggles within these industries:

> "The fishing in Orkney has been devastated. We now just have one boat, one chap making a living from the sea, and he actually is a farmer as well.... I think people would feel that, you know, some of these big boats are coming in, some of these big factory boats are coming in. There's nothing being done about it and they're just helping themselves. But it is devastating the local kind of fisheries and the sea in the way that they do it." (Participant 9, Coastal)

> "I think you'll find crofting at that crossroad at the moment. It tends to be in what they call the less favoured areas, the poorer areas of Scotland or the hills and Moorlands up in the northwest and the islands.... But they will tell you, the way the new government money coming in and compared to European money, the less favoured areas are going to get less income from, in fact crofters, are going to be financially in a worse situation." (Participant 6, Coastal).

One participant felt very negatively about the aquaculture industry, expressing:

> "I think that fish farms are doing far more harm to the environment than the overfishing. They're pouring tonnes of insecticide in the water.... I'm looking at BBC News website and ... it says that the in Scotland last year, government data shows that more than 17,000,000 salmon died, the most ever recorded." (Participant 1, Mainland)

4.4 Support for government legislation

National survey results

Another survey question asked respondents about legislative action to improve the natural environment. Respondents were asked:

'To what extent do you agree or disagree with the following statement:

- *Statement 1: There should be legal targets to improve Scotland's natural environment'*

The results regarding statement 1 are displayed in Figure 4.4 and Table 4.4. Around three-quarters (74%) of respondents agreed with this statement, with 41% reporting they *'strongly agree'*. About one in nine (11%) respondents disagreed with this statement, split about evenly (5% each) between *'strongly'* and *'somewhat'* disagreeing, and 14% of respondents reported feeling neutral.

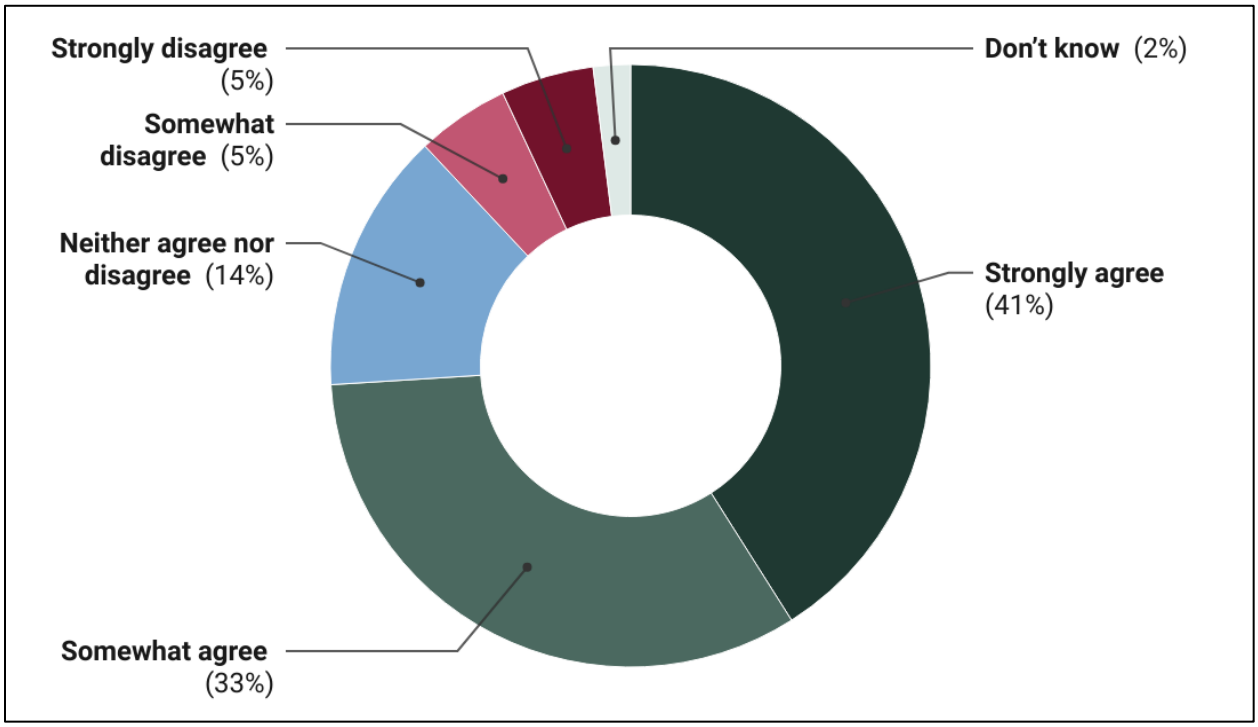


Figure 4.4: Support for legislation

Women are more likely to agree with legal targets to improve Scotland's natural environment than men (78%; 69%). The youngest generation – those aged 16 to 34 - are also most likely to agree with proposals for legal targets than those 35 or older (83%; 70%).

In terms of geography, rurality is particularly salient:

- **Rurality:** Those in urban areas are more likely to agree with legal targets to improve Scotland's natural environment (76%) than those in rural areas (65%).

Those who feel connected to the natural environment (78%; 60%) and worry about the natural environment at least *'occasionally'* (83%; 44%) are more likely to agree with legal targets to improve the natural environment than their counterparts, as are those who feel informed compared to those who do not feel informed (77%; 68%).

Subsample differences

As indicated in Table 4.4 below, those in the rural and the H&I boosts are less supportive of legal targets to improve Scotland's natural environment, with 66% in each boost sample agreeing with the proposal, compared to a high of 74% of those throughout Scotland.

Table 4.4: Support for legislation

		Strongly agree	Somewhat agree	NET: Agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	NET: Disagree	Don't know
		%	%	%	%	%	%	%	%
1	***National (n=1,079)***	***41***	***33***	***74***	***14***	***5***	***5***	***11***	***2***
	Rural boost (n=705)	*35*	*31*	*66*	*15*	*7*	*9*	*16*	*3*
	H&I boost (n=522)	*37*	*29*	*66*	*19*	*7*	*5*	*12*	*3*

4.5 Support for government intervention

National survey results

Survey respondents were also asked about government intervention to make farming and fishing more environmentally sustainable. Respondents were asked:

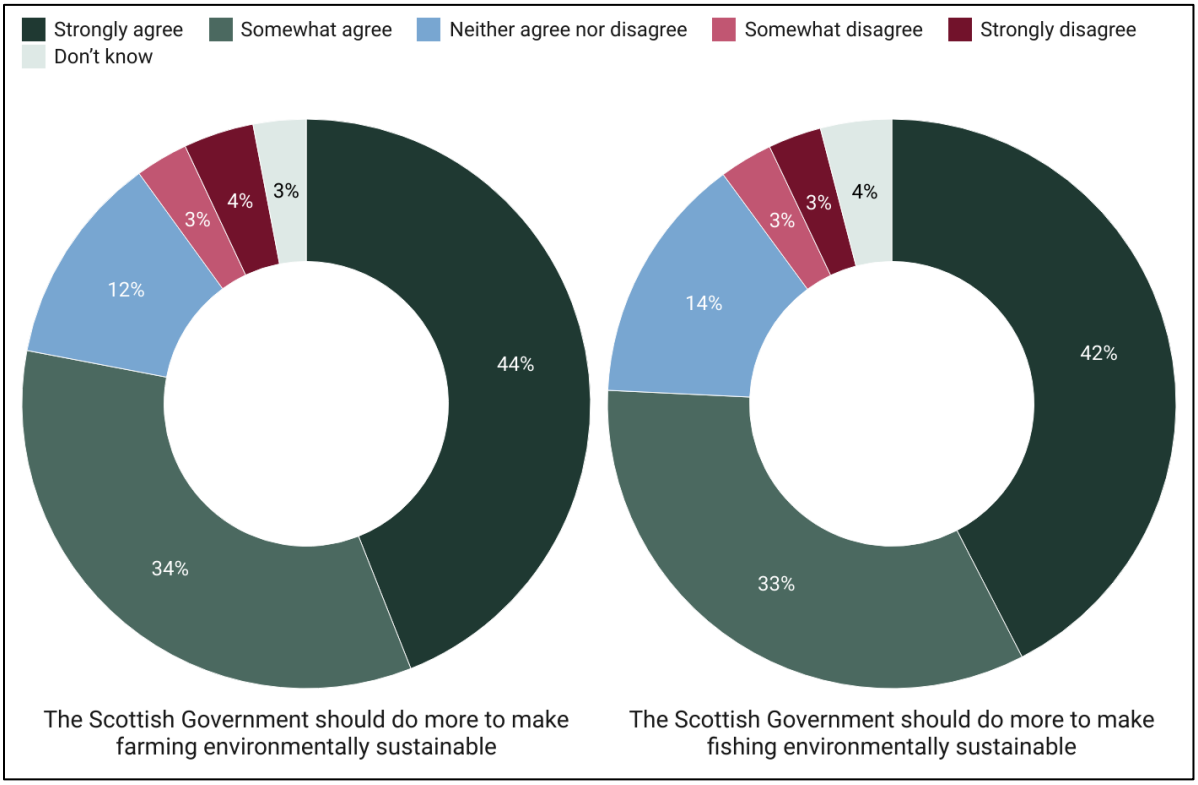
'To what extent do you agree or disagree with the following statements:

- *Statement 2: The Scottish Government should do more to make farming environmentally sustainable*
- *Statement 3: The Scottish Government should do more to make fishing environmentally sustainable'*

The national-level results with respect to statements 2 and 3 were quite similar to each other and are displayed in Figure 4.5 and Table 4.5. At least three-fourths of respondents agree the government should do more to make farming and fishing environmentally sustainable, at 78% and

75%, respectively. A slightly higher proportion *'strongly agree'* with the statement about farming than the one regarding fishing, at 44% and 42%, respectively. About one in twelve (8%) of respondents disagree and one in eight (12%) report *'neither agreeing nor disagreeing'* with the statement about farming, whilst 7% disagree and 14% are neutral towards the statement on fishing (see Figure 4.5).

Figure 4.5: Government intervention in industry



Views on Scottish Government intervention to make farming and fishing sustainable remain relatively stable across demographic and geographic groups. However, individuals that feel connected to the environment are more likely than those who do not to agree that the Scottish Government should do more to make farming (80%; 67%) and fishing (79%; 62%) environmentally sustainable. In addition, information may also impact attitudes, as those who think they are informed about environmental issues are more likely to agree with governmental intervention to make fishing more sustainable (79%; 69%).

Subsample differences

Across sub-samples, residents in the Rural boost are less supportive of government intervention in farming or fishing to make the industry more environmentally sustainable, with seven in ten (70%) agreeing with governmental intervention in each industry (see Table 4.5). H&I residents are less likely to favour governmental intervention, however only in the case of fishing industry, where 69% support intervention compared to 75% in the national sample.

Table 4.5: Government intervention in industry

		Strongly agree	Somewhat agree	NET: Agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	NET: Disagree	Don't know
		%	%	%	%	%	%	%	%
2	***National (n=1,036)***	***44***	***34***	***78***	***12***	***3***	***4***	***8***	***3***
	Rural boost (n=679)	*40*	*29*	*70*	*14*	*6*	*6*	*12*	*4*
	H&I boost (n=490)	*44*	*32*	*76*	*11*	*6*	*5*	*10*	*2*
3	***National (n=1,035)***	***42***	***33***	***75***	***14***	***3***	***3***	***7***	***4***
	Rural boost (n=680)	*36*	*34*	*70*	*15*	*6*	*4*	*10*	*5*
	H&I boost (n=491)	*38*	*31*	*69*	*13*	*13*	*3*	*16*	*3*

Focus group findings

Mainland focus group participants were generally supportive of actions to protect the environment in the farming, fishing, and forestry industries, but their attitudes were nuanced with concern regarding how different measures may impact local livelihoods and communities, both ecological and human:

> "I think there has to be balance, doesn't there have to be balance in everything? And I mean, we want a good environment because we want as human beings to have a good quality of life as well, don't we? And we need some woodland, don't we? [Some of which] is managed for being cut down to make things or I wouldn't be sitting on my chair." (Participant 3, Mainland)

> "There's a push to get rid of traditional farms that work with the environment as it is. Maybe not perfectly, but they do work with the environment. They know how to manage the land so it's neither overly run down or abused. And the alternative seems to be, well, just let it go. Just let it go. Be its own thing. People can walk in it. It's like people who are currently there will not be able to survive doing these things." (Participant 5, Mainland)

Often, these concerns centred around issues of proportionality for small organisations.

Coastal focus group participants shared in these concerns, elaborating that action taken to improve the environment should include rigorous consultation with the community, to ensure it is people-centred.

> "The introduction of wild animals and things like that needs to be based on the community and the environment the community find themselves in. So, you know, in an island community, some of that would be really difficult." (Participant 9, Coastal)

> "I know we do really well with locally owned wind farms. We've got three or four on Lewis - community wind farms where the money generated is going back into the local community and council grants and aid and stuff for other organisations. But we've got a really big one in the planning… by a big company with no benefit for people living here, but a massive impact to us from their substation and stuff coming on to land and things. So there's quite a lot of unrest just now with that kind of, because we see the benefits of wind power, but the way this is being done on the scale it's being done on, it's not great for folk living here." (Participant 8, Coastal)

The principle of community ownership and consultation was also discussed in relation to MPAs. Whilst coastal participants agreed with the idea that the seas need to be protected, they took issue with the HPMA policy's implementation:

> "There's so many decisions like that that seem to be taken without much reference to local thought, opinion…just sort of just took huge areas and put a pencil around them and said
>
> that's going to be a marine protected area. And it just, completely backfired. It just didn't make sense to anybody up here. It's a common complaint that things are done without really having the background knowledge to make the proper decision. I think if you would speak to fishermen, yes, they will agree, there's too many crews in the sea. But they've got to make a living at the same time. But if it was organised properly, you'd find the cooperation of the fishermen sought. Marine protected areas have got a place and I think they themselves would agree with that." (Participant 6, Coastal)

However, participants appreciated that the MPA stimuli referenced the people and communities that rely on the seas.

> "Like that it talks about the communities that rely on the sea and what it's got in it or had in it. Humans. Yeah," (Participant 3, Mainland)
>
> 'I quite like the first [sentence], with a lot of different sides of the sea." (Participant 6, Coastal)

Across both groups, the lack of governmental action on this issue stood out to participants from the statements.

> "It just, when it says the government was required to get these measures in by various years, I'd just like to know why not then." (Participant 2, Mainland)
>
> "You've got ten years there. We've lost ten years." (Participant 9, Coastal)

“[Responding to Participant 9] And you can't keep putting it on the back burner to bring something else to the floor because it will come to a point where… we're going to leave it too late and it will be irreversible. You can't keep changing the date to a later date because you're prioritising something else, because then it's just tokenism, isn't it? It's just saying, ‘Yeah, we're doing something about it’, but they're actually not really.” (Participant 10, Coastal)

5. Reflections on stimuli

During the focus groups, participants were asked to reflect on various stimuli, including written text and statistics.

First, participants reflected on the phrase *'nature and biodiversity crisis',* which has been used by many experts to describe Scotland's natural environment. Some participants readily agreed with the use of this terminology and found it an apt description of the current state of nature.

> "I would agree and I would say it's been going on for a lot longer than they've actually implied in that statement." (Participant 4, Mainland).

Others felt this statement conveyed a severity that they had not been informed of and wondered why they had not heard more about this.

> "I would say it's not been widely publicised, if that's the case. I'm sure that's the case in lots of local areas, but they're not really saying how there's this problem. You know, there's a crisis. What's causing the crisis and where it's happening specifically in your actual area?" (Participant 10, Coastal)

> "Yeah, I've not seen anything about it. You know, it's not commonly talked about, so I've not known anything about that." (Participant 7, Coastal)

One participant felt like the term *'crisis'* seemed severe and preferred the term 'concern'.

Next, participants were asked about their response to the statement: *'nature is the first line of defence against climate change'*. Participants expressed strong agreement with this sentiment; one went on to identify an example of ecosystem destruction in their area impairing some of the environment's capacity for climate change mitigation:

> "You can't keep cutting down trees for whatever reason. Whether it's building factories, building housing, whatever. I mean they're decimating woodlands all over the place and that is definitely not helping CO2 emissions clear and not helping the ozone [layer]" (Participant 10, Coastal)

Subsequently, participants were provided with statistics from the *State of Nature* publication. Participants were initially drawn to the statistics with higher values, surrounding the decrease in seabirds and the distribution of flowering plants. Numbers surrounding 50% conveyed the urgency of the situation, although participants felt these numbers reflected what they have noticed themselves while others disagreed (see Section 3.1, Experience of human impacts).

Once prompted, participants found the statistic that *'One in nine (11%) Scottish species are threatened with extinction'* concerning and surprising.

> "The 11 percent one looks to me to be the most worrying, I'd say…. Well, when you're dead, you're dead." (Participant 1, Mainland).

> "You don't hear a lot about Scottish species that are threatened with extinction, because you know, a lot of what's advertised are, you know, elephants and cheetahs and leopards and all these wild animals abroad. You don't really hear about what's happening in your local area, so again, we can't individually do anything about it or try and affect change if we don't know anything about it.' (Participant 10, Coastal).

However, mainland participants expressed scepticism with statistics, as they may be misleading.

> "I'm mildly cynical of this because anytime anybody uses percentages, it's normally shock and awe. Grab your attention and statistics can be made to prove almost any point. I don't disagree with them. I think there probably has or there is a lot of truth behind it. But the numbers themselves I take with a slight pinch of salt" (Participant 4, Mainland).

Participants also reflected on Scotland's ranking in the Biodiversity Intactness Index. Responses to the Index were mixed, with some participants finding Scotland's location relative to other countries

surprising and others less so. Participants used this time to reflect on historical human impacts on the environment and their impact on Scotland's relative ranking.

> "Yeah, I'm surprised about Scotland's position, and I would have thought a lot higher. I don't know much about Japan, how densely populated it is, and I would have thought Scotland would be a bit more above Japan." (Participant 2, Mainland)

> "I'm mildly not as shocked…. Certainly bottom third, like, because we have managed the land for a long time. Like you're going back hundreds and hundreds of years to get to

> unmanaged land in Scotland and in the UK in general. That's why I've kind of been surprised that, well, Germany, Italy and France all being so high because they're in much the same state. but I guess they've just done better at keeping certain areas preserved" (Participant 5, Mainland)

> "It's tied up with the massive big estates that are owned in Scotland for the wrong reasons. and it goes back-to-back a long time…. So we've had sheep, we've had forestry, we've had deer, big moorland areas with grouse shooting. It's all in the hands of very few people and their own vast areas and there's no with land rights. " (Participant 6, Coastal)

Finally, participants discussed their feelings towards Scottish Government designating a new National Park. Many of those in the coastal focus group who were less familiar with the concept were generally supportive of the idea:

> "Protecting another area and protecting the biodiversity in nature and everything can only ever be a good thing I think." (Participant 8, Coastal)

Other participants who had closer experience with the parks had more complex feelings:

> "In principle, I have nothing against this National Park, but having lived in one for the last 20 years, they haven't been terribly good for the area. And in fact, some of the ones proposed have been getting an awful lot of backlash and people have seen what the Cairngorm National Park is

like and have decided they don't want to push house prices up massively. Personally, I'm finding it difficult to get a house, as are many other people." (Participant 5, Mainland)

"I haven't heard about the new thing about wanting to introduce a National Park – I agree with the point of it: for nature to be rewilded and to keep nature, but I'd heard of something to do with one – I can't remember whether it was in Scotland or not – making it better for tourists. So like bringing cafes and car parks and stuff which I think ruins the purpose of having a National Park." (Participant 7, Coastal)

6. Conclusion

This report details findings from a mixed-methods study, combining a large-scale survey of the Scottish public with in-depth focus groups with those in rural Scotland, to understand perceptions of environmental issues.

Primary findings from this study include that the majority of the Scottish public feels connected to the natural environment (77%) and considers themselves at least somewhat informed about environmental issues (69%). However, knowledge of and familiarity with environmental issues is substantially lower for specific environmental concepts, suggesting familiarity with some issues may be limited to affected communities.

Notably, many Scottish residents worry about the natural environment at least occasionally (76%) and have noticed the impacts of climate change in their local area (68%). The majority of Scottish residents believe that coastal, urban, rural, and local areas are at least fairly vulnerable to climate change, while an overwhelming majority (87%) perceive coastal areas to be vulnerable to the effects of climate change. Over half (58%) of Scottish residents believe their local area is vulnerable to climate change, and almost three in four (72%) believe environmental protection could bring other benefits to their area, the most commonly cited one being *'improved public health and wellbeing'* (64%).

Over half of those surveyed rated renewable energy, farming and forestry sectors *'highly'* (68%; 63%; 53%), and there is significant support amongst the public for government targets to improve the environment (74%) as well as the sustainability of the farming (78%) and fishing sectors (75%). Moreover, most of the public (69%) reported having already taken action to reduce their environmental impact.

Focus groups highlighted how variable and consequential different environmental issues are across rural communities in Scotland. Looking forward, participants expressed desire for action to improve the environment from businesses as well as local and central government, underscoring that for this to be done properly, actors must first consider local communities and their lived experience.

Appendix A: Survey Questionnaire

Knowledge and Familiarity

ASK ALL

Q1. To what extent, if at all, do you feel connected to the natural environment?

SINGLE CODE

1. Very connected
2. Fairly connected
3. Not very connected
4. Not at all connected
5. Don't know

ASK ALL

Q2. And how often do you visit nature (e.g., woodlands, coastal areas, lochs and rivers, local parks and gardens, etc.)?

SINGLE CODE

1. Almost every day
2. Three or more times a week
3. One or two times a week
4. Several times a month
5. Once a month
6. Less than once a month

ASK ALL

Q3. Are you a member of, or have you in the past 12 months made any donations to, any charities involved in nature conservation? These may include charities such as the Royal Society for the Protection of Birds (RSPB), the National Trust for Scotland, or Scottish Wildlife Trust, among others.

PLEASE SELECT ALL THAT APPLY

RANDOMISE ORDER

1. I am currently a member of a nature conservation charity

2. I have previously been a member of a nature conservation charity
3. I have donated to a nature conservation charity in the last 12 months
4. I have donated to a nature conservation charity prior to the last 12 months
5. None of the above (SINGLE CODE, FIX TO BOTTOM)

ASK ALL

Q4. How well informed, if at all, do you think you are about issues affecting the natural environment?

SINGLE CODE

1. Very well informed
2. Fairly well informed
3. Not very well informed
4. Not at all informed
5. Don't know

ASK ALL

Q5. Before today, how much, if anything, did you know about the following concepts:

SINGLE CODE

RANDOMISE ORDER

1. Climate change
2. Net zero
3. Nature restoration
4. Rewilding
5. Sustainable/regenerative agriculture

SCALE: A lot, A fair amount, A little, Hardly anything, but I've heard of this, Hadn't heard about this before now

Experience of climate change

ASK ALL

Q6. How often, if at all, do you worry about the natural environment (e.g., impacts of climate change, nature loss, etc.)?

SINGLE CODE

1. Often

2. Occasionally
3. Rarely
4. Never
5. Don't know

ASK ALL

Q7. How concerned, if at all, are you about the impact of climate change on food production in Scotland?

SINGLE CODE

1. Very concerned
2. Fairly concerned
3. Not very concerned
4. Not at all concerned
5. Don't know

ASK ALL

Q8. Have you taken or considered taking action to reduce your environmental impact, such as changing how you travel, what you eat, or what you buy?

SINGLE CODE

1. I have already taken action to reduce my environmental impact and I look to further reduce my environmental impact
2. I have already taken action to reduce my environmental impact, but do not look to further reduce my environmental impact
3. I have considered taking action to reduce my environmental impact, but have not done so yet
4. I have not taken action or considered taking action to reduce my environmental impact

ASK ALL

Q9. In your lifetime, have you noticed any of the following in your local area:

SELECT ALL

RANDOMISE ORDER

1. Impacts of nature loss, such as fewer birds or insects
2. Impacts of climate change, such as warmer temperatures or extreme weather events

3. Impacts of pollution, such as in water or in the air
4. None of the above (FIX TO BOTTOM)

ASK ALL

Q10. How vulnerable, if at all, do you believe the following types of communities are to the effects of climate change?

SINGLE CODE

RANDOMISE EXCEPT CODE 1

CAROUSEL

1. Your local area
2. Coastal areas
3. Urban areas (towns and cities)
4. Rural areas

SCALE: Very vulnerable, Fairly vulnerable, Not very vulnerable, Not at all vulnerable, Don't know

Attitudes

ASK ALL

Q11. To what extent do you agree or disagree that action to protect the environment may bring other benefits to your local area?

1. Strongly agree
2. Somewhat agree
3. Neither agree nor disagree
4. Somewhat disagree
5. Strongly disagree
6. Don't know

ASK ALL

Q12. What benefits, if any, do you believe action to protect the environment may have on your local area?

SELECT ALL

RANDOMISE ORDER

1. Expanded job opportunities

2. Enhanced economic prospects (for example, through attracting tourism or maintaining nature-based businesses)
3. Enhanced climate resilience (for example, through preventing flood risk)
4. Improved public health and wellbeing
5. Strengthened sense of community
6. Increased recreational opportunities
7. Enhanced scenic value of landscape
8. Other, please specify (OPEN TEXT)
9. None (SINGLE CODE, FIXED TO BOTTOM)

ASK ALL

Q13. On a scale of 0 to 10, with 0 being 'Extremely negative' and 10 being 'Extremely positive', how do you feel about the following business sectors?

SINGLE CODE

RANDOMISE

1. Farming
2. Forestry
3. Fishing
4. Aquaculture (fish farming)
5. Grouse shooting
6. Renewable energy

SCALE: 0-10, Don't know

ASK ALL

Q14. To what extent do you agree or disagree with the following statements:

SINGLE CODE

RANDOMISE EXCEPT CODE 1

CAROUSEL

1. There should be legal targets to improve Scotland's natural environment
2. The Scottish Government should do more to make farming environmentally sustainable
3. The Scottish Government should do more to make fishing environmentally sustainable

SCALE: Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree, Don't know

ASK ALL

Q15. Recruitment Question

This survey was designed by Diffley Partnership. We intend to conduct follow up research with respondents to this survey to further explore people's views on the environment and issues affecting the environment

If you would be interested in taking part in this follow up research, please provide your email below. Diffley Partnership will provide you with full details before you consent to take part. (This is not a formal invitation to take part, but a way to express an interest in doing so.)

By providing your email, you are consenting to ScotPulse sharing your answers to these survey questions with us so that we can contact you.

Appendix B: Discussion guide

Scottish Environment LINK

Discussion Guide, May/June 2024

Set up – 5 mins

Thank you for joining us to discuss issues affecting the natural environment.

Introduce Diffley Partnership Team.

Introduce Scottish Environment LINK staff, explain they are an observer, instruct staff to turn camera off and mute themselves for rest of discussion

Welcome to the focus group–

- Explain the discussion will last up to 90 minutes
- There will be plenty of time to get your views across and discuss issues between yourselves; this is something we encourage. My role is to keep the conversation flowing, ensuring we cover the broad areas we need to and ask any questions,
- Fully anonymous and confidential; The Diffley Partnership abide by the Market Research Society Code of Practice and the SRA Ethical Guidelines.
- Request permission to record discussion – with your permission I will record the discussion; this is just so we can go back and listen again after the discussion

Do you have any questions before we start?

Icebreaker – 5 mins

Please briefly introduce yourselves, your first name and how you would describe your relationship with/interest in nature.

Initial Assumptions and Experience– 20 mins

In one word, how would you describe the condition of Scotland's natural environment?
PROMPT: Why did you choose that word?
PROMPT: Do you think Scotland's natural environment is good/poor? Why or why not?

PROMPT: Do you think this has changed over time? Differs by location? In what way?

These are the results of a nationally representative survey of the Scottish public done through the Scotpulse panel. What is your experience?
[Show results of survey through Scotpulse]

Have you noticed any impacts of climate change in your local area or in Scotland more generally?
PROMPT: warmer temperatures, extreme weather, etc.
PROMPT: any specific examples?

What about any impacts of pollution?
PROMPT: in water, in air, etc.
PROMPT: any specific examples?

What about any impacts of nature loss?
PROMPT: fewer birds, fewer insects, etc.
PROMPT: any specific examples?
PROMPT: anything surprising from the survey results?

And how do you feel about action to conserve or protect Scotland's natural environment?
PROMPT: positive/negative, supportive/unsupportive, goes far enough/goes too far
PROMPT: Why or why not?

Do you believe action to protect the environment may bring other benefits to your local area?
PROMPT: why/why not?
PROMPT: what about nature-friendly agricultural practices?
PROMPT: jobs/economic, climate resilience, public health, community, etc.
PROMPT: can you provide an example?

And what do you think are the most important steps to take to conserve nature?
PROMPT: Why do you think that?

Knowledge and Familiarity – 15 mins

How well informed do you think you are about issues affecting the natural environment in Scotland?

PROMPT: knowledge of habitats such as Scotland's rainforest/Atlantic rainforest/Celtic rainforest, peatlands, deer management

How much do you feel you know about nature restoration?

PROMPT: Have you heard of nature restoration?

PROMPT: Generally positive or generally negative?

PROMPT: How would you describe it?

How much do you feel you know about rewilding?

PROMPT: Have you heard of rewilding?

PROMPT: Generally positive or generally negative?

PROMPT: How would you describe it? Different to nature restoration?

How would you feel if there were proposals to undertake nature restoration in your local area?
PROMPT: positive/negative, supportive/unsupportive – why/why not? Any specific concerns?

And how would you feel if there were proposals to undertake rewilding in your local area?
PROMPT: supportive/unsupportive - why/why not?
PROMPT: is this broadly similar to how you'd feel about nature restoration or not?

And do you feel generally supportive/unsupportive about proposals for native woodland regeneration, rewetting degraded peatlands, tackling invasive species, or protecting/reintroducing native species?
PROMPT: why/why not?

Response to statistics – 15 mins

Many experts have stated that there is a 'nature and biodiversity crisis' in Scotland. What do you think about this phrase?

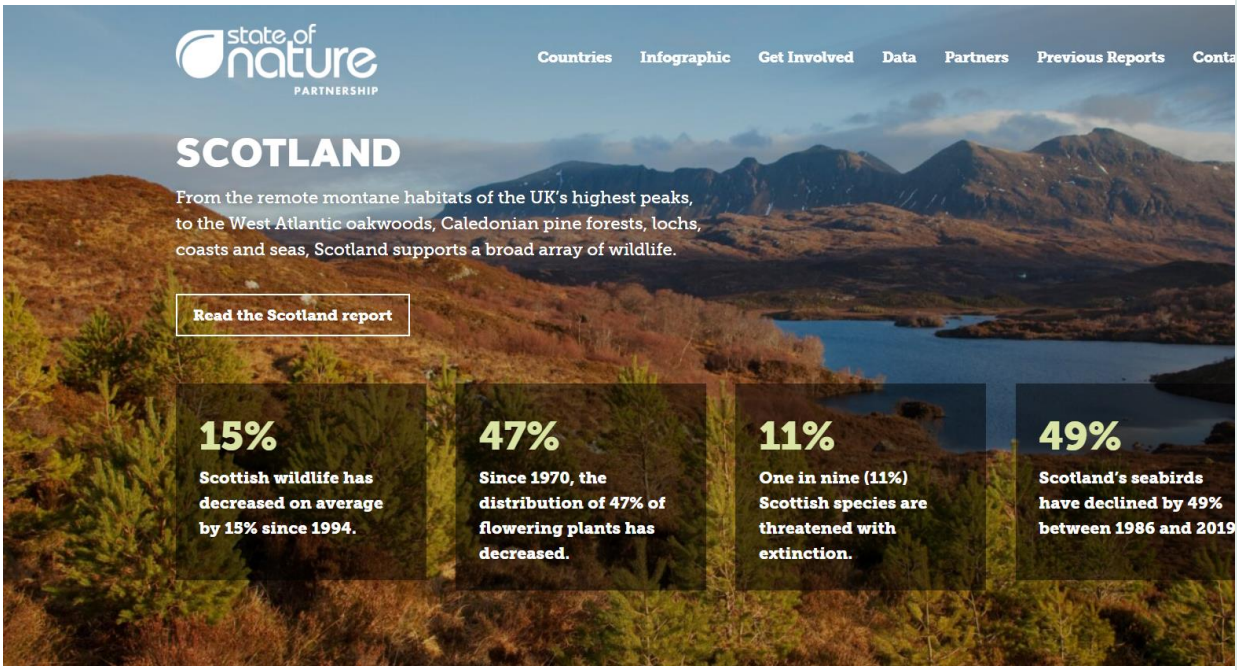
PROMPT: And how does this phrase make you feel?

What do you think of the statement: 'nature is the first line of defence against climate change'?

PROMPT: And how does this phrase make you feel?

We are now going to show you some recent publications on nature and biodiversity. Please share as much as is comfortable about your thoughts and feelings on these publications.

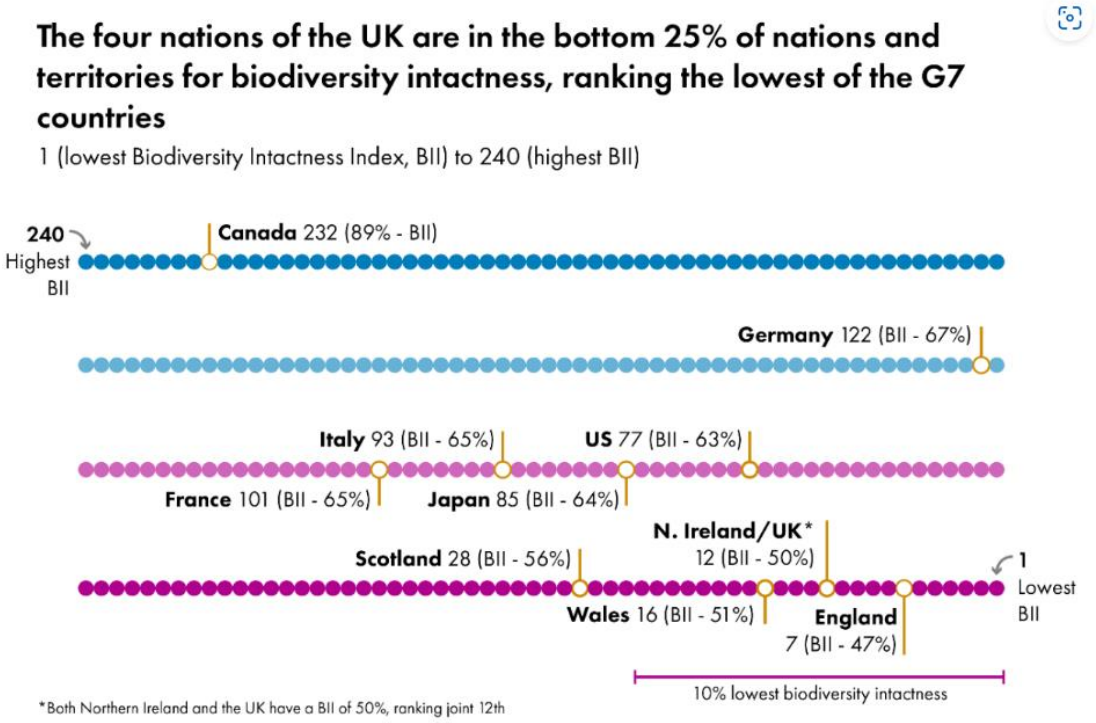
Show publication #1– State of Nature Scotland



What is your reaction to these statistics?
PROMPT: How does they make you feel? How so?
PROMPT: Anything particularly striking, surprising, concerning, etc.?
PROMPT: Any other thoughts?

Next, we'll present some statistics from the Biodiversity Intactness Index. The Biodiversity Intactness Index (BII) is an international comparison that measures the abundance and diversity of species today compared to how abundant and diverse nature would have been before human impacts. This allows us to measure the human impact on nature in Scotland compared to other countries and territories around the world.

Show publication #2 – Biodiversity Intactness Index



What is your reaction to this graphic?

PROMPT: How does it make you feel? How so?

PROMPT: Anything particularly striking, surprising, concerning, etc.?

PROMPT: Any other thoughts?

Industries and Policy Action – 30 mins

MARINE PROTECTED AREAS

How do you feel about the fishing industry?

PROMPT: Generally positive/negative? Why?

PROMPT: Environmental impact?

What about the aquaculture (fish farming) industry?

PROMPT: Generally positive/negative? Why?

PROMPT: Environmental impact?

A marine protected area is a clearly defined part of the sea which is established to achieve long-term nature conservation and support sustainable use.

How much do you feel you know about Marine Protected Areas?
PROMPT: Have you heard of Marine Protected Areas?
PROMPT: Where did you hear about Marine Protected Areas? Generally positive or generally negative? Separate from HPMA (proposals for strict protection)?

Would you say you feel supportive or unsupportive of the general principle of Marine Protected Areas?
PROMPT: why/why not?

Next, we're going to show you some messaging about Marine Protected Areas and get your reactions
[Present message #1]

We all want Scotland's seas to thrive.

They're home to incredible wildlife, and they provide us with food and recreation. For coastal communities who rely on activities like fishing and wildlife tourism, healthy seas are vital.

Our seas are also crucial in the fight against climate change, as marine ecosystems can store even more carbon than those on land.

But our seas are a shadow of what they once were. Intensive use has destroyed habitats and driven many species into steep decline.

We urgently need to protect our marine wildlife and help our seas recover, for the benefit of everyone.

Thinking about this statement, what is your reaction to it?
PROMPT: How does it make you feel? How so?
PROMPT: Do you agree or disagree? How come?

PROMPT: Any other thoughts?

[Present message #2]

On paper, Scotland already has a network of marine protected areas, designated since 2014 to protect our most precious ocean wildlife. But 10 years on, these vital areas remain largely unprotected. Industrial activities, particularly high impact forms of fishing, continue to deplete the life within them.

The Scottish government is required by law to design and implement fishing restrictions for each marine protected area, tailored to the natural species and habitats it contains. Depending on the area this might mean restricting certain types of fishing but allowing other types that have a lower environmental impact.

These restrictions are the bare minimum needed for marine protected areas to actually protect the biodiversity they contain. And they are long overdue.

The government was originally required to get these measures in place by 2016, and then by 2020. But by 2024, little has been done.

This cannot go on. The Scottish government must end the delays and act now to take this crucial step in helping our seas recover.

Thinking about this statement, what is your reaction to it?
PROMPT: How does it make you feel? How so?
PROMPT: Do you agree or disagree? How come?
PROMPT: Any other thoughts?

AGRICULTURE

How do you feel about the farming and crofting industry?

PROMPT: Generally positive/negative? Why?

PROMPT: Environmental impact?

Many farmers and crofters are trying to produce food in ways that reduce their impact on nature and climate. Some agriculture is classed as "high nature value farming" because they are less intensive and provide a range of environmental benefits, such as habitats for birds and pollinators.

How much do you feel you know about High Nature Value Farming?

PROMPT: Have you heard of High Nature Value Farming?

PROMPT: Where did you hear about High Nature Value Farming? Generally positive or generally negative?

What do you think about high nature value farming in principle?

PROMPT: Generally positive/negative? Why?

Some environmental and farming groups think that government financial support should be targeted at supporting farmers and crofters to reduce their environmental impact. How do you feel about this proposal?

PROMPT: Generally positive/negative? Why?

NATIONAL PARK

Have you heard of plans to designate at least one new National Park in Scotland by 2026?

PROMPT: Where did you hear about it? Generally positive or generally negative?

PROMPT: How do you feel about this plan in principle?

FORESTRY

How do you feel about the forestry industry?

PROMPT: Generally positive/negative? Why?

PROMPT: Environmental impact?

Commercial forestry typically involves creating woodland with fast-growing, non-native species, which are eventually felled to produce a range of products. Conservation forestry is the practise of planting and maintaining native forests with the principal focuses being on improving local biodiversity, creating spaces for recreation, and protecting natural resources. In principle, would you tend to support more commercial forestry or more conservation forestry in Scotland?
PROMPT: Why/why not?

Conclusions and wrap-up

Thank you very much for the discussion, **is there anything not already covered that you would like to mention?**
Thank and close. We will pick up with you individually to coordinate incentive payments.

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From many voices to smart choices