

Public Engagement with Climate Change in Scotland: 2022

November 2022

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Final report

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by **BMG Research**

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1. Introduction

This report contains the findings from a quantitative study exploring public perceptions of climate change in Scotland, among adults aged 18 and above and young people aged 14-17. This research was conducted by BMG Research on behalf of the Scottish Government.

1.1 Background

In September 2019, the Scottish Government passed legislation which committed Scotland to net zero greenhouse gas emissions by 2045 and a 75% reduction in emissions by 2030. In recognition of the need for more ambitious action to meet these more ambitious targets, in December 2020, the Scottish Government published an update to the Climate Change Plan 2018-2032, which outlines policies and proposals to achieve the new 2030 target and, ultimately, net zero emissions.

Achieving Scotland's emissions targets will require substantial changes to society. This will only be possible with understanding, participation, and action from people across Scotland. In September 2021, the Scottish Government published 'Net Zero Nation' – a five-year Public Engagement Strategy for Climate Change (PES). The PES sets out the Scottish Government's vision that everyone in Scotland recognises the implication of the global climate emergency, fully understands and contributes to Scotland's response, and embraces their role in the transition to a net zero and climate ready Scotland.

The PES is structured around three key pillars:

- Understand – people are aware of the action that all of Scotland is taking to tackle climate change and understand how it relates to their lives
- Participate – people actively participate in shaping just, fair and inclusive policies that promote mitigation of and adaptation to climate change
- Act – taking action on climate change is normalised and encouraged in households, communities and places across Scotland

1.2 Research objectives

BMG was commissioned to conduct a representative survey of the Scottish public exploring current attitudes and behaviours as they relate to each of the three key pillars of the PES.

The findings from this research will be used to help monitor changes in Scottish public attitudes and behaviours over the lifetime of the PES.

1.3 Methodology

1.3.1 Survey design

The survey included questions on: awareness of the Scottish Government net zero targets and climate policies (Understand); experiences of and attitudes to participating in policy and decision making relating to climate change (Participate); and understanding of the actions that are needed to tackle climate change, and instances of these actions being taken or planned at an individual, household or community level (Act).

The survey was designed to answer each of the research questions, with three different sections to explore each of the three key pillars outlined above. The majority of questions were designed to be single response questions for ease of the respondent. The survey includes two ranking questions and some multiple response questions where appropriate.

Questions were ordered to minimize the impact of influencing responses – i.e. broader and higher-level questions which required less prior knowledge were asked first, with more complicated questions, sometimes provided with definitions of key terms, asked later in the survey.

Two versions of the survey were created, one for adults aged 16 and above and one for young people aged 14 and 15. The young person questionnaire was tailored so that questions that were not relevant to young people were not asked. However, changes between the two versions were minimal, allowing the data to be merged and treated as one wider dataset of respondents aged 14+ for the vast majority of survey questions.

The survey took approximately 10-15 minutes to complete.

Fieldwork took place between the 21st March and 3rd April 2022. A total of 1,782 respondents completed the survey. This included:

- 1,502 respondents aged 18+
- 280 respondents aged 14-17

1. 3. 2 Recruitment of participants

Adult participants (aged 16 years and above) were recruited using online panels¹, with representative quotas set on age, gender and region. A 'panel blend' approach was taken to fieldwork. This involves blending the sample across a number of research panels to increase the potential overall sample size, help ensure good coverage across key demographic groups, and to reduce the risk of panel biases that can sometimes occur by relying solely on a single panel provider. The panels used for this project were:

- Panelbase

¹ An online panel is defined as an online group of recruited people willing to conduct social and market research surveys in return for a small financial incentive for each survey completed.

- Made in Surveys
- Lucid
- YouthSight – youth specialist, used to reach those aged 16 and 17

Young people below the age of 16 were recruited via their parents/guardians, with consent taken before the survey was completed. Once the initial adult component was completed, and the adult answered some basic demographic questions about their child, the survey was handed over to the young person to complete the main body of the questionnaire.

1. 3. 3 Weighting

The survey data used for this report is weighted to ensure the data is representative of the Scottish population aged 14+.

Results for respondents aged 14-17 were weighted by age, gender and region.² Results for those aged 18+ were also weighted by these variables, with the addition of targets for ethnicity and educational attainment.³

To ensure an adequate sample size for sub-group analysis, respondents aged 14-17 years old were purposefully oversampled. However, age weighting ensures that the total sample is not skewed as the proportion of those aged 14-17 is adjusted to be representative.⁴

Unweighted and weighted response counts by region, age and gender and some other metrics are presented in the sample profile in the Appendix.

1. 3. 4 Presentation of results

Throughout the report, results are discussed in terms of differences between sub-groups and the total result. Differences are considered to be significant at the 95% confidence level, meaning that there is only a 5% possibility that the difference occurred by chance rather than by being a real difference. This is a commonly accepted level of confidence.

The data used in this report are rounded up or down to the nearest whole percentage. It is for this reason that, on occasion, tables or charts may add up to 99% or 101%. Results that do differ in this way should not have a sum-total deviance that is larger than around 1 to 2%.

All differences highlighted in this report are statistically significant unless stated otherwise.

² Targets taken from ONS mid-year population estimates.

³ Ethnicity targets taken from 2011 census. Educational attainment targets taken from the 2019 Scottish Household Survey.

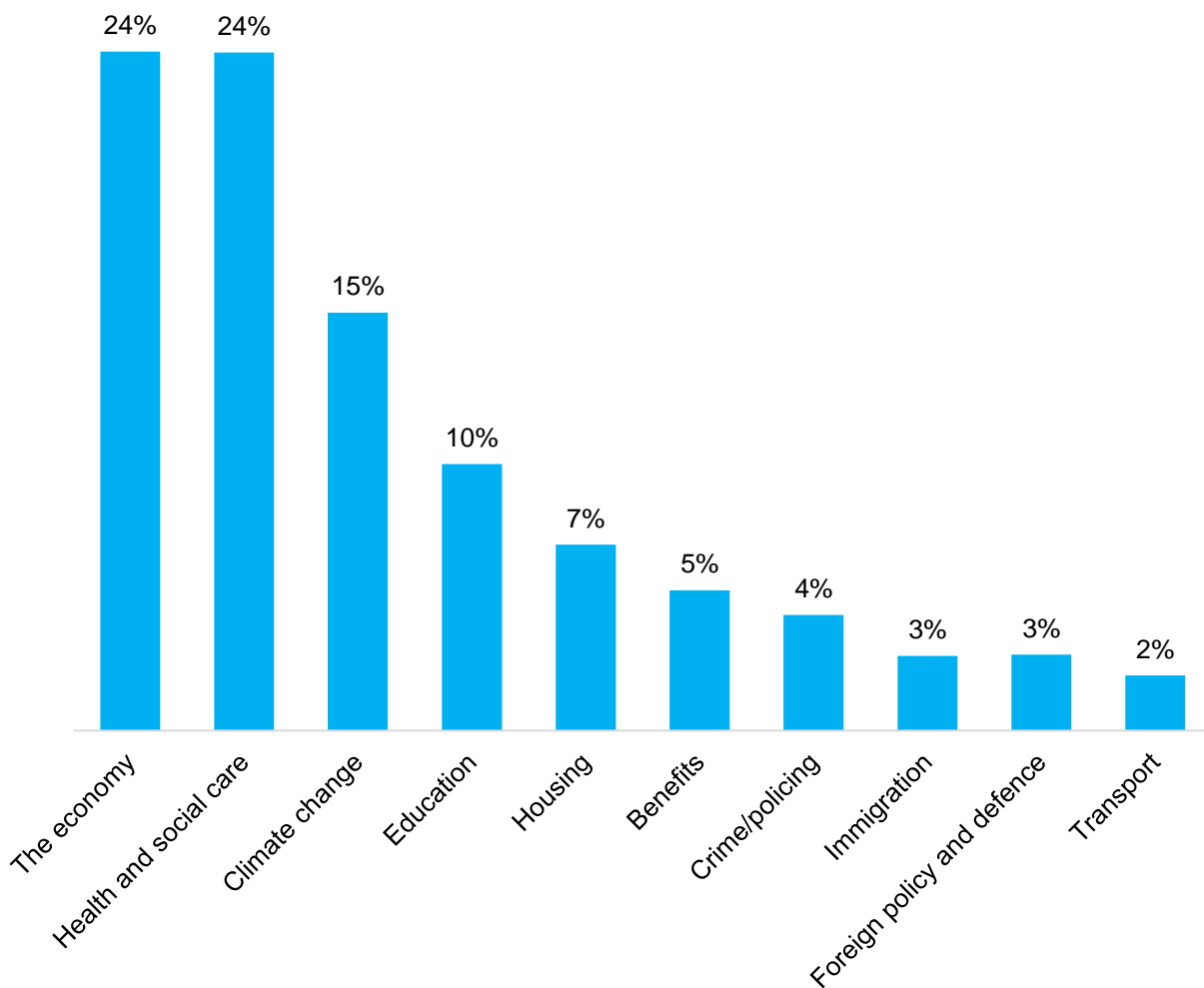
⁴ 280 respondents aged 14-17 were interviewed, but the weighted base is 86 (4.8% of the population).

2. Understanding

2.1 Concern about climate change

The Scottish public are most likely to rank the economy (24%) and health and social care (24%) as the policy issues that are most important to them, but climate change ranks third – selected as the top issue by 15% of the population (Figure 1). The mean ranking for climate change was 5.4 – around the midpoint in terms of important policy areas.

Figure 1: Please rank the following policy areas in terms of their importance to you (percentage ranking issue first).

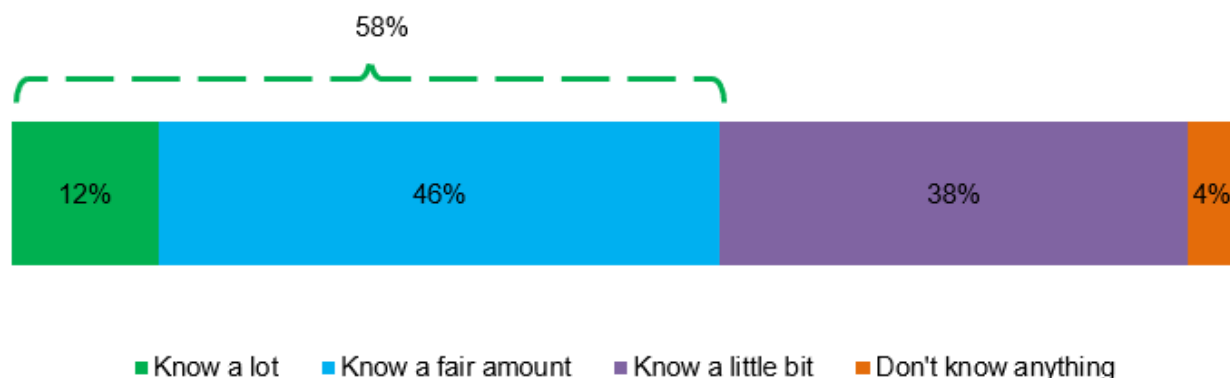


Unweighted bases (1782), ranked response question, 4% of respondents answered 'don't know'

2.2 Knowledge about climate change

Over half (58%) of the Scottish public state that they know at least “a fair amount” about climate change, however only around one in ten (12%) are confident enough to say that they know “a lot” about it. Just 4% say they don’t know anything about it. (Figure 2).

Figure 2: Overall, how much would you say you know about the topic of climate change?



Unweighted bases (1782), single response question

Respondents aged 18-34 are significantly more likely than older respondents to say that they know a lot or a fair amount about climate. Those aged 14-17, however, are more in line with the Scottish average. (Table 1).

Table 1: Overall, how much would you say you know about the topic of climate change? – by age group (know a lot + know a fair amount)

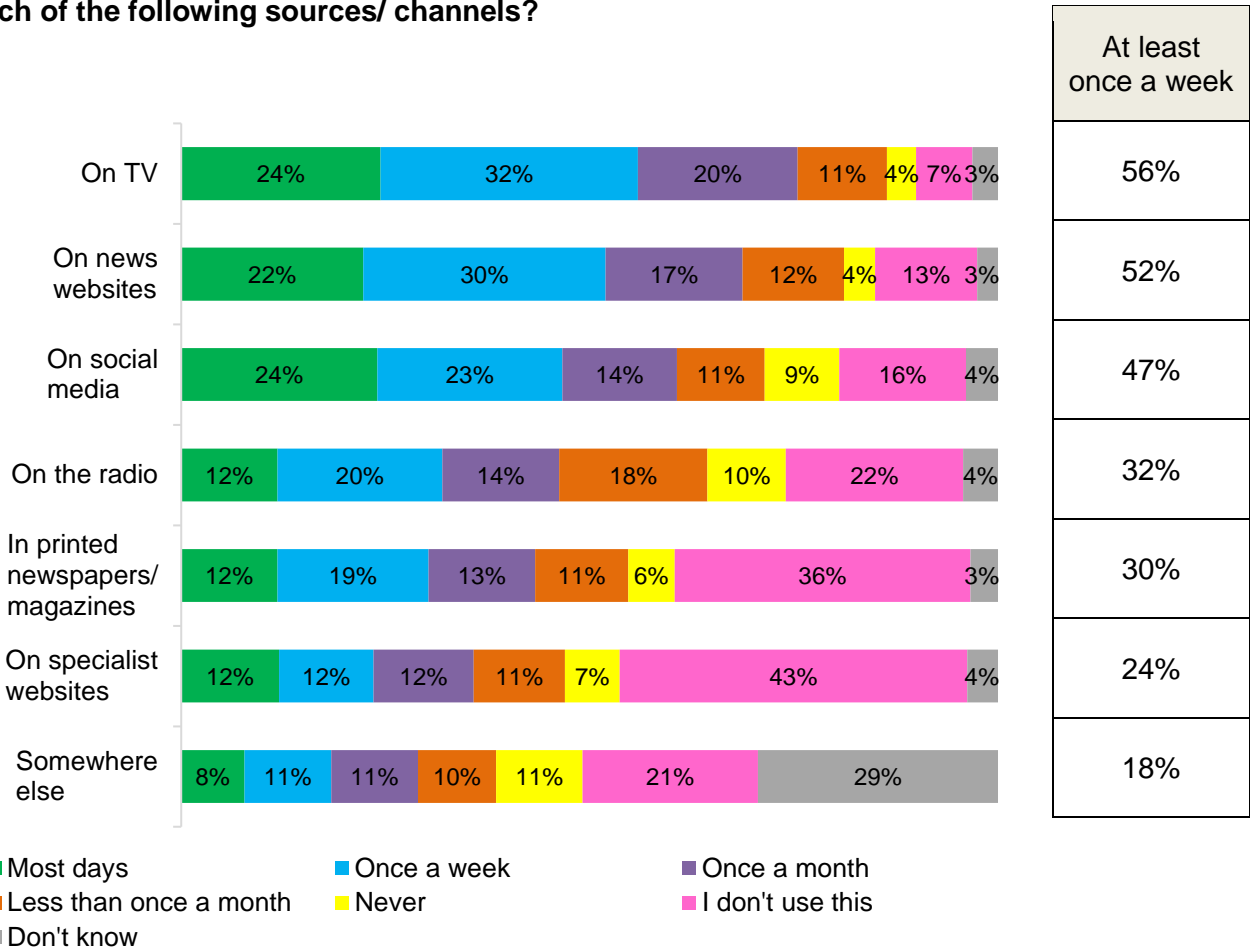
	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Know a lot / Know a fair amount	58%	59%	68%	65%	58%	56%	53%	53%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

2.3 Exposure to information about climate change

The Scottish public are most likely to recall seeing information about climate change on the television, with over half (56%) doing so at least once a week. A similar proportion say they read about it on news websites (52%), while just under half see something about it on social media (47%) at least once a week (Figure 3).

Figure 3: In general, how often do you see or hear information about climate change from each of the following sources/ channels?



Unweighted bases (1782), single response per source

For those sources where fewer have seen or heard stories about climate change, this is not necessarily a result of coverage of the topic being scarce on these platforms, but because respondents are more likely to say they just do not use this source. For example, respondents are less likely to see something about climate change in newspapers and magazines or on specialist websites mainly because they do not use them (36% and 43% respectively).⁵

Different demographic groups are likely to receive information about climate change from different sources (Table 2). For example, older age groups are more likely to report receiving information on the television on climate change than the general population. Similarly, younger groups are more likely to get this from social media than the total population.

Men are more likely than women to get information through both news and specialist websites, as well as through newspapers.

⁵ For a version of this data with those who do not use each source excluded, please see appendix 1.

Table 2: Social media and TV as sources of information on climate change at least once a week, by age group

Source	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
TV	56%	41%	41%	54%	52%	57%	62%	64%
Social media	47%	60%	66%	64%	55%	45%	40%	23%

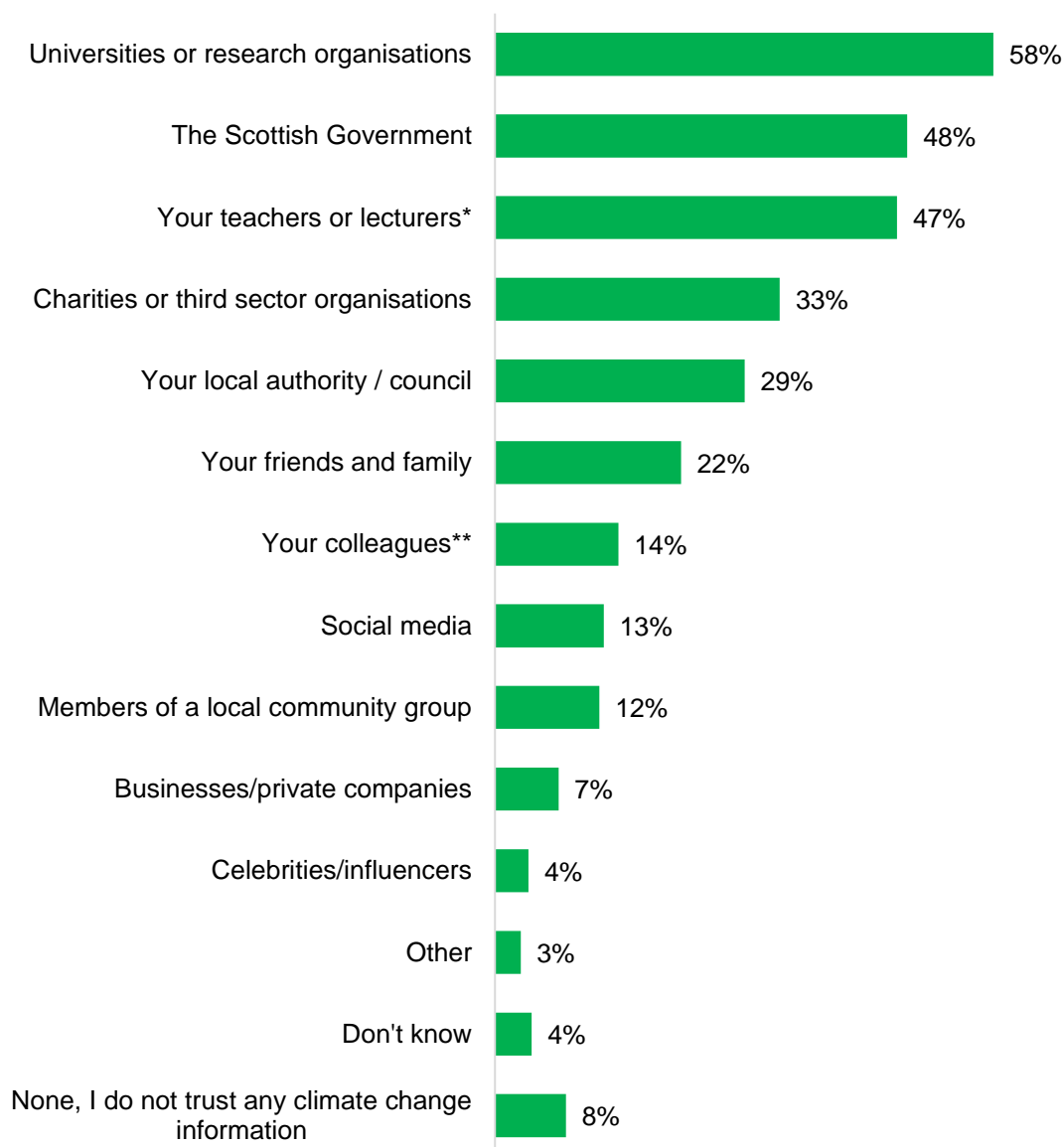
Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

2.4 Trusted sources of information on climate change

Regardless of where they currently see or hear information, when thinking about who they *trust* to give them information or advice on climate change, the Scottish public are most likely to say universities or research organisations (58%). Approximately half (48%) say they would trust the Scottish Government to give them information or advice on climate change. The public are least likely to trust celebrities or influencers (4%) and businesses or private companies (7%) to give them information or advice on climate change. (Figure 4).

Almost half (47%) of those who are currently in education say they trust their teachers or lecturers to provide information or advice. Those in employment are unlikely to trust their colleagues, with only 14% saying they do.

Figure 4: Which of the following groups would you trust to give you information or advice about climate change?



Unweighted bases (1782), multi response question

*only those in education (106), **only those in employment (953)

When looking at which sources are most trusted by different age groups (Table 3), Scottish people aged 18-24 and 25-34 years old are more likely than average to trust information about climate change from friends and family (29%, 27%), social media (28%, 19%), or celebrities or influencers (9%, 7%). 25-34 year olds are also more likely to trust the Scottish Government (56%).

35-44 year-olds are more likely to trust information from their local authority (36%).

Meanwhile, those aged over 65 are significantly more likely than average to say they trust universities and research organisations (65%).

55-64 year-olds and those aged 65 and above are also more likely to say they do not trust any climate change information (12%, 14%) regardless of the source.

Table 3: Groups trusted to give you information or advice about climate change, by age group

Source	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Government								
The Scottish Government	48%	53%	51%	56%	51%	47%	44%	43%
Your local authority/ council	29%	35%	31%	34%	36%	25%	27%	25%
Personal network								
Your friends and family	22%	48%	29%	27%	24%	18%	15%	15%
Media channels								
Social media	13%	27%	28%	19%	14%	10%	5%	5%
Celebrities/ influencers	4%	13%	9%	7%	3%	2%	0%	3%
Other organisations								
Universities or research organisations	58%	54%	52%	55%	56%	62%	56%	65%
Businesses/private companies	7%	8%	11%	11%	7%	8%	6%	4%
None								
None. I do not trust any climate change information or advice	8%	2%	3%	4%	8%	6%	12%	14%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

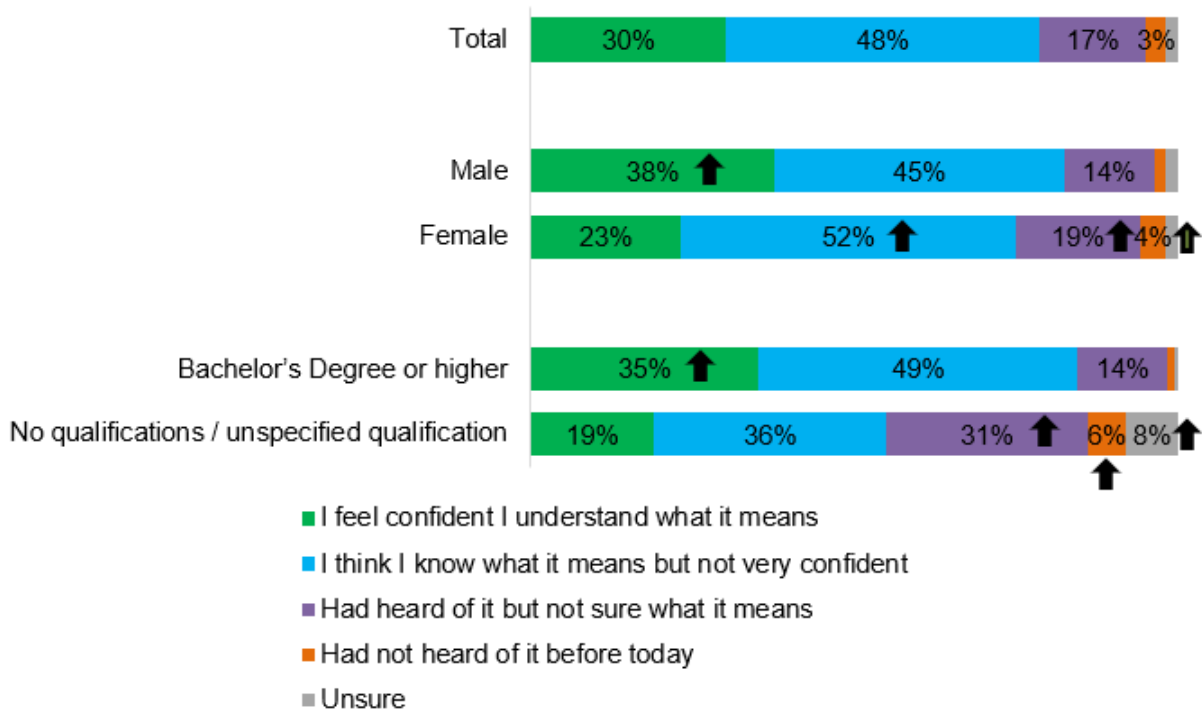
Further analysis of those who trust the Scottish Government on climate change, shows greater levels of trust amongst minority ethnic groups (58%), those interested in getting involved in activities to combat climate change (58%), those who live in Glasgow (55%), those in employment (52%), and those educated to at least degree level (52%). There are no significant differences between demographic groups with respect to trust in local authorities.

2.5 Knowledge of net zero

When presented with the term “net zero emissions”, just under a third (30%) of the Scottish public say that they feel confident that they know what it means (Figure 5). Almost half (48%) say they think they know what it means but are not very confident that they know what it means. Men are more likely than women to say they feel confident that they know what it means (38% vs. 23%). Those educated to at least degree level (35%) are more likely to say they feel confident they know what it means than those with no qualifications/an unspecified qualification (19%).

Only a tiny proportion (3%) of the Scottish public had not heard the term prior to taking the survey.

Figure 5: Which of the following statements best reflects your knowledge of the term “net zero emissions”?

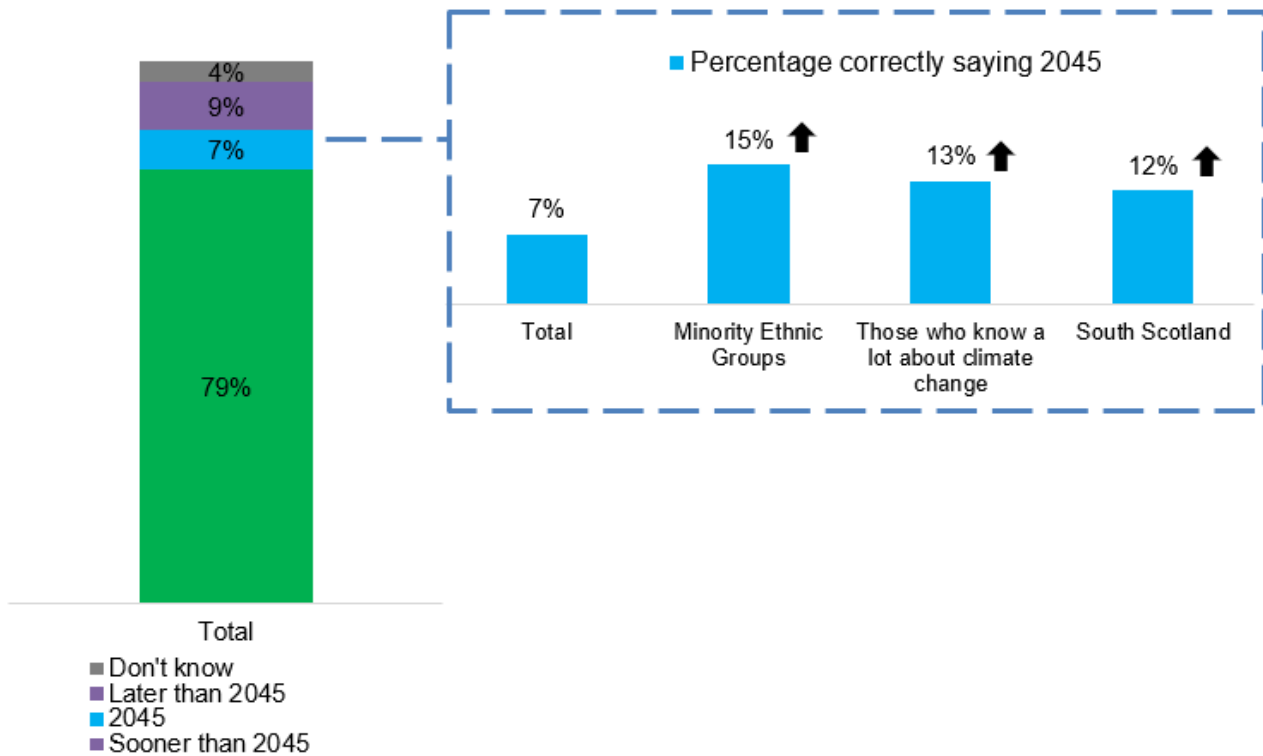


Unweighted bases (1782), single response question

Note: Arrows signify data that is significantly higher than total to a confidence of 95%.

Respondents who said they felt confident they understood what net zero means, or who know what it means but are not very confident, were then asked which year is Scotland’s target year for reaching net zero emissions. Only 7% selected the correct year, 2045 (Figure 6), while 79% of the Scottish public think that the target is before 2045 and 9% think it is after. Those aged 25-34 are more likely to believe Scotland’s target for reaching net zero emissions is before 2045 (Table 4).

Figure 6: In which of the following years does Scotland's target for reaching net zero emissions fall within?



Unweighted bases, those with some prior knowledge of net zero (1361), single response question

Note: Arrows signify data that is significantly higher than total to a confidence of 95%.

Table 4: Respondents saying Scotland's target for reaching net zero emissions before 2045, by age group

	14-17	18-24	25-34	35-44	45-54	55-64	65+
Before 2045	83%	76%	89%	78%	81%	79%	75%

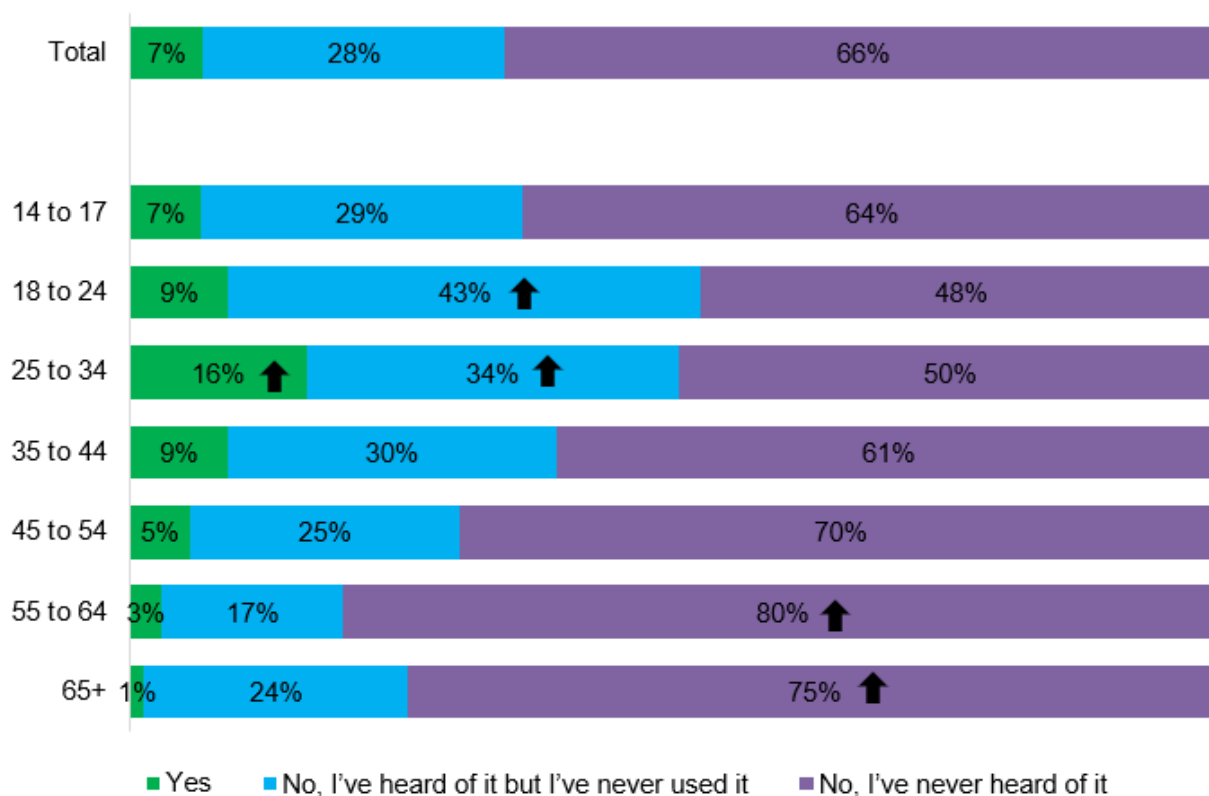
Note:

All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total.

2.6 Awareness of netzeronation.scot

A third (34%) of the Scottish public have at least heard of the website netzeronation.scot, but only 7% say they have used it (Figure 7). 18-24-year-olds are most likely to have heard of the website but not used it (43%), while 25-34-year-olds are most likely to have used the website (16%). In general, younger adults are more likely than older people to have heard of or used the website. However, 14–17-year-olds are less likely to have done so than the two age cohorts immediately above them (18-24, 25-34).

Figure 7: Have you ever used <https://www.netzeronation.scot> to find information about climate change?



Unweighted bases (1782), single response question

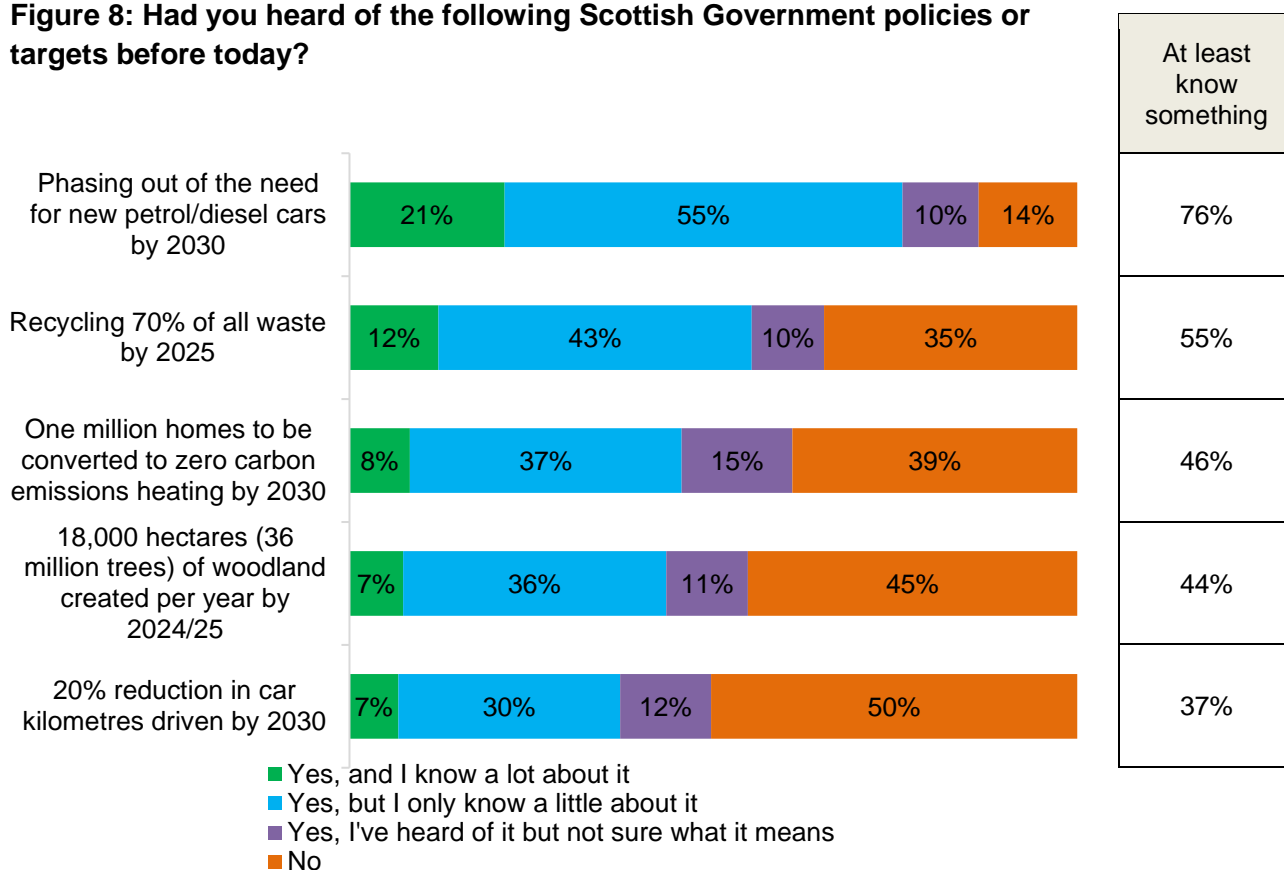
Note: Arrows signify data that is significantly higher than total to a confidence of 95%.

2.7 Knowledge of Scottish Government climate policies

Respondents were presented with a selection of Scottish Government policies and targets designed to help tackle climate change and asked if they had previously heard of them. Awareness of the policies and targets listed varied (Figure 8). The policy with greatest level of awareness was the Scottish Government’s target to phase out the need for new petrol and diesel cars by 2030, which more than three-quarters (76%) of the Scottish public say they know at least a little bit about. There is lowest levels of awareness of the policy to reduce car kilometers driven by 20% by 2030 (37% reported knowing at least a little bit about this).

Across all the policies tested, only a small proportion stated that they know a lot about them. Around one in five (21%) say they know a lot about phasing out of the need for new petrol or diesel cars by 2030, but for all other policies, this was around one in 10 or fewer.

Figure 8: Had you heard of the following Scottish Government policies or targets before today?



Unweighted bases (1782), single response question

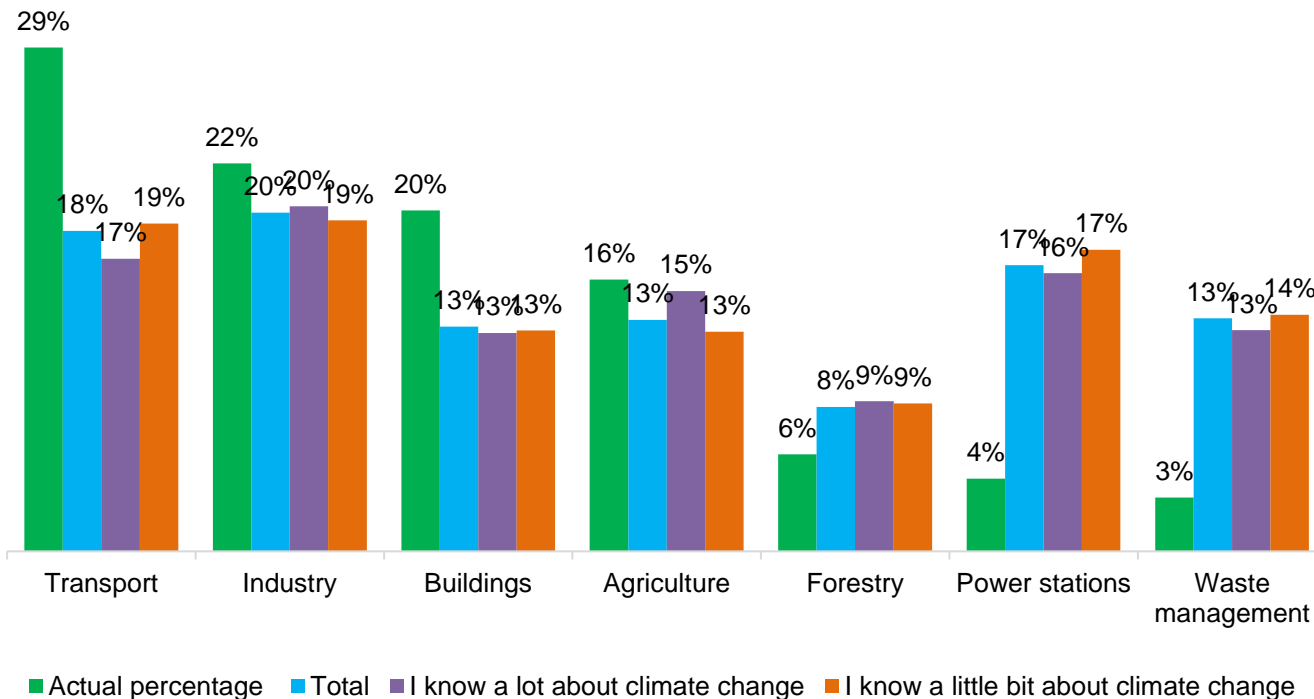
2.8 Knowledge of sources of Scotland’s greenhouse gas emissions

When asked what percentage of Scotland’s greenhouse gas emissions are produced by a range of different sources, on average, the Scottish public tend to select industry (20%) and transport (18%) as contributing the most and forestry as producing the lowest proportion of emissions (8%) (Figure 9). Those who only know a little about climate change ascribe a slightly higher proportion to transport, closer to its actual value, than those who say they know a lot about it (19% vs. 17%). In contrast, those who know a lot about it ascribe a higher proportion to agriculture, closer to its actual value, than those who know a little (15% vs. 13%).

When compared to the Scottish Government’s latest official Greenhouse Gas statistics (2019⁶), on average, respondents substantially overestimated the greenhouse gas emissions emitted by power stations and waste management, and substantially underestimated the emissions contributions of transport and buildings. There is little variation by those who claim to know a lot and those who claim to know a little about climate change, and the actual figure of source emissions.

⁶ Scottish Government: Scottish Greenhouse Gas Statistics: 1990-2019

Figure 9: Of the following sources, approximately what proportion based on the latest data (2019), of Scotland’s total annual greenhouse gas emissions do you think is produced by each? (Average percentage value ascribed) (16+ only)



Unweighted bases (1623), single response per row question. Actual percentage sourced from [Scottish Government: Scottish Greenhouse Gas Statistics: 1990-2019](#)

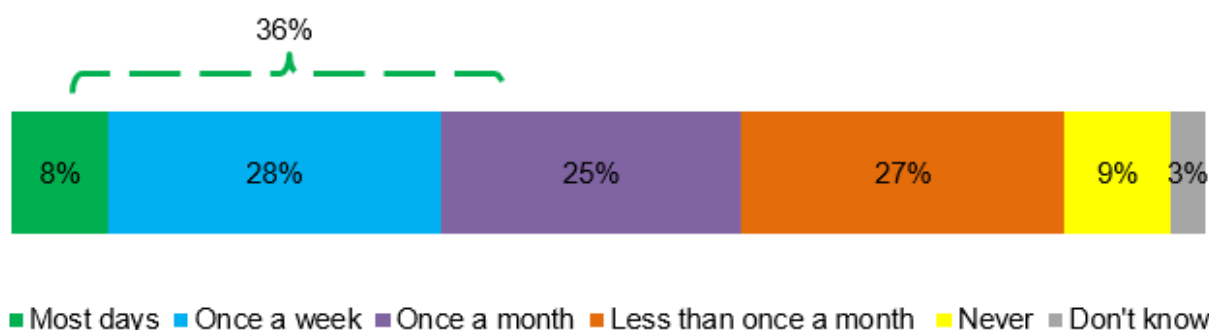
3. Participation

This section explores public participation in engaging in discussions surrounding climate change and their contribution to the creation of policies that promote the mitigation and adaptation to climate change.

3.1 Frequency of talking about climate change

Over a third of adults (36%) have spoken about climate change at least once a week in the past year. As Figure 10 below demonstrates, this includes 28% who say they spoke about climate once a week over the past twelve months and 8% who say they have done so most days. Only 9% say they never spoke about climate change.

Figure 10: In general, how often have you spoken to people about climate change in the past year?



Unweighted base (1782), single response question

Looking at the data by age in Table 5, 25-34 year-olds are significantly more likely to say they have spoken about climate change frequently, with just under half (47%) of this group saying they have done so over the past year. The age group with the highest proportion of respondents who say they have never spoken about climate change are 55-64-year-olds, with around a tenth saying so (11%).

Table 5: Frequency have spoken about climate change in the past year – by age group (most days + once a week)

	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
At least once a week	36%	40%	42%	47%	35%	33%	34%	29%
Never	9%	9%	10%	4%	9%	10%	11%	9%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

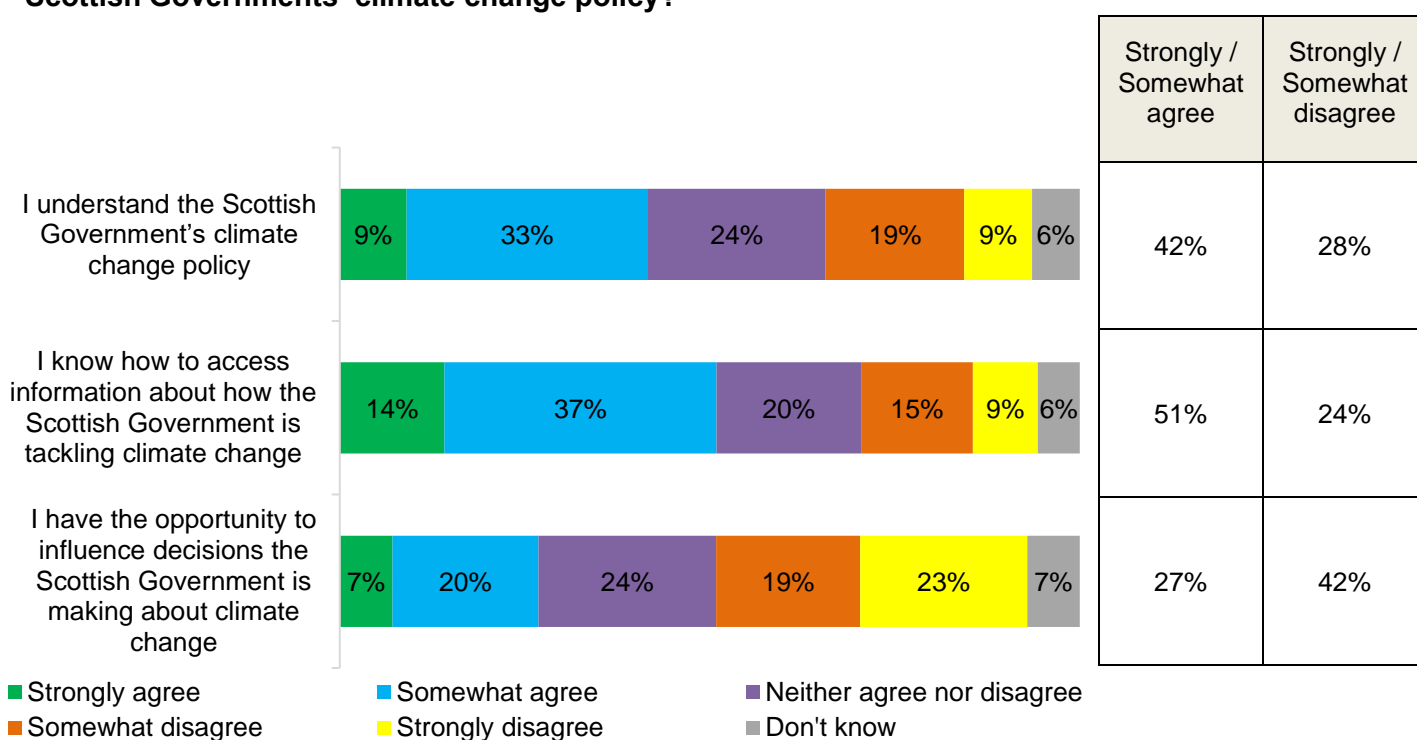
There is also a difference between people with different levels of educational attainment. 44% of Scottish adults who have been educated to bachelor’s degree level or higher

have spoken about climate change at least once a week, compared to 8% with no qualifications.

3.2 Scottish Government’s climate change policy statements

When asked to which extent they would agree that they understand the Scottish Government’s climate change policy, over two fifths of respondents (42%) agreed that they understand it (Figure 11). Over half of the Scottish public (51%) agree that they know how to access information about their government’s climate change policy. Just over a quarter (27%) agreed they have the opportunity to influence their government’s decisions about climate change, with over two fifths (42%) disagreeing.

Figure 11: To what extent do you agree or disagree with the following statements about the Scottish Governments’ climate change policy?



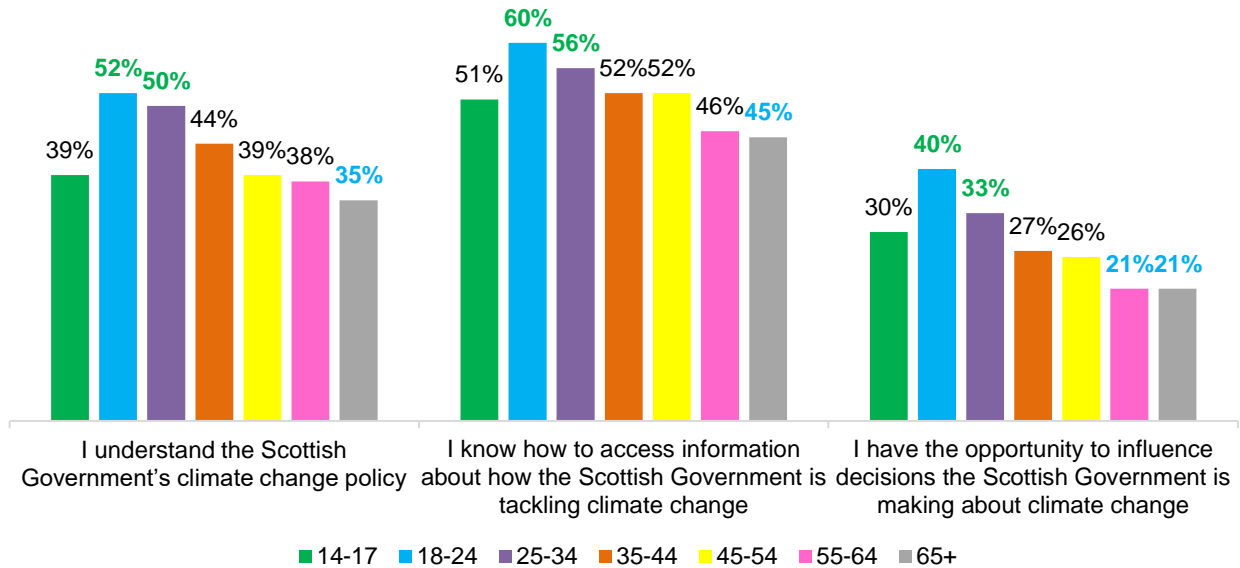
Base: Unweighted base (1782), single response question

Figure 12 demonstrates that younger age groups are more likely to agree with these statements than older cohorts. The 18-24 year-old and 25-34 year-old groups are significantly more likely to agree they understand the Scottish Government’s climate change policy (52% and 50% respectively); know how to access information (60% and 56%); and have the opportunity to influence decisions the Scottish Government is making about climate change (40% and 33%).

Respondents in the most deprived areas are more likely to agree they have the opportunity to influence decisions the Scottish Government is making about climate change. A third of these respondents (33%) agree compared to just over a quarter (27%) of the total population. Conversely, those in the least deprived areas in Scotland are more likely to disagree they have the opportunity to influence, with over half disagreeing (52%)

compared to just over two fifths of the total population (42%). It should be noted that less deprived areas have an older average age than the most deprived areas.

Figure 12: Extent of agreement with statements about the Scottish Government’s climate change policy – by age group (strongly agree + somewhat agree)



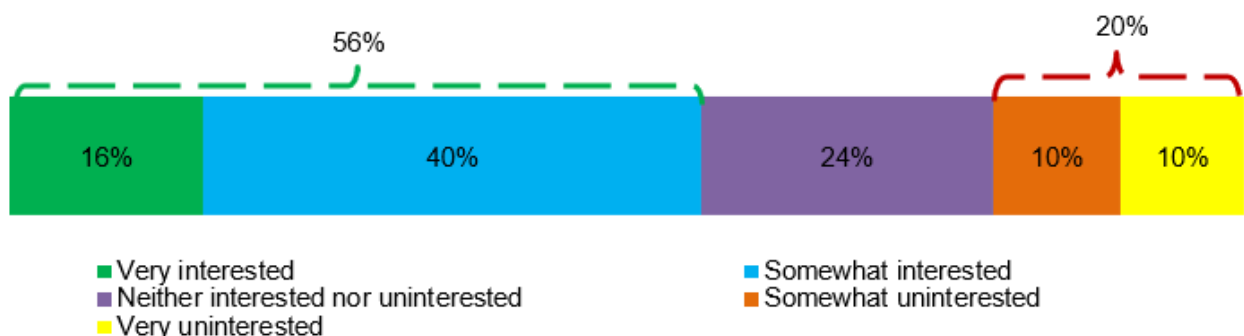
Base: Unweighted base (1782), single response question

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

3.3 Interest in getting involved in climate change initiatives

When asked about their interest in getting involved in activities to combat climate change, over half (56%) of the Scottish public said they would be interested. Figure 13 demonstrates that one fifth (20%) say they are uninterested in getting involved in anti-climate change activities. Those who live in the least deprived areas of Scotland are less likely to be interested in getting involved in activities to combat climate change (51% cf. 56%). It is important to note here that at this point in the survey, respondents had not been given any examples of what activities could be available.

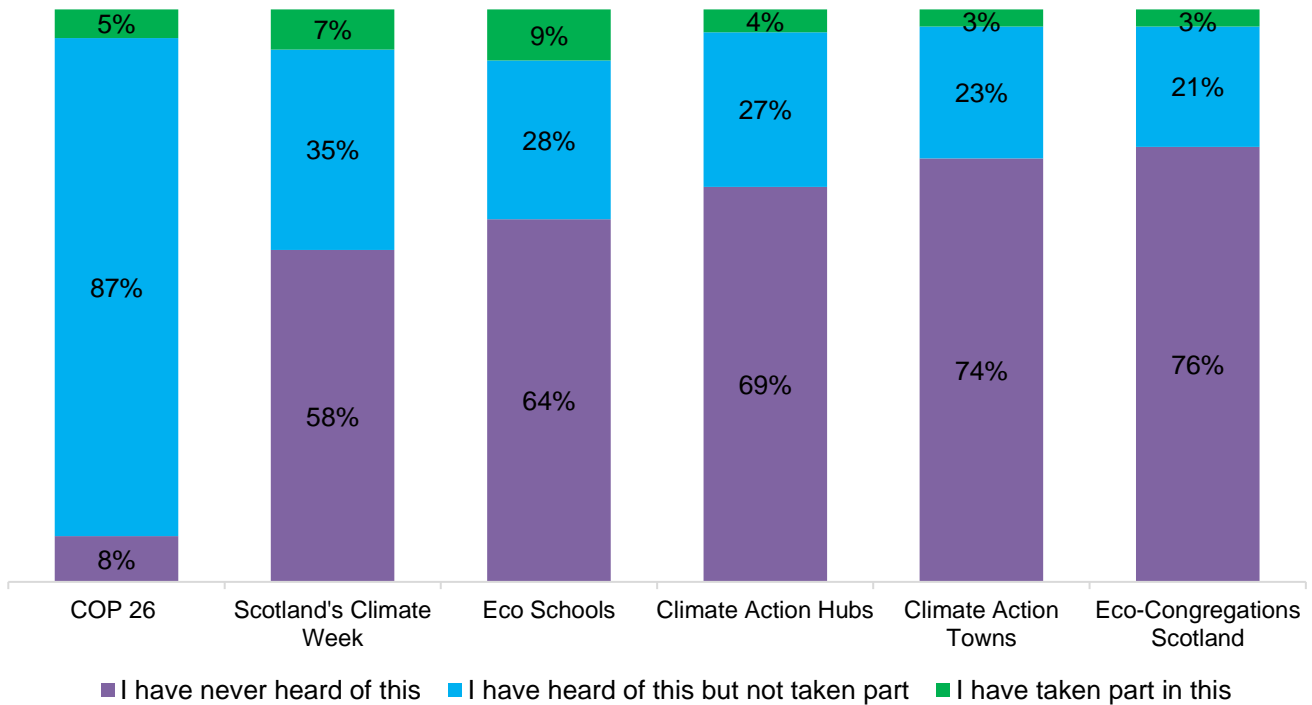
Figure 13: In general, how interested would you be in getting involved in activities that combat climate change?



Base: Unweighted base (1782), single response question

Turning to specific climate change initiatives, COP 26 UN Climate Change Conference is the initiative which was most well-known. The majority (92%) of adults had heard of it or taken part (Figure 14). At least 58% of the Scottish public have not heard of the other climate change initiatives that were listed in the study.

Figure 14: Have you heard of, or taken part in, any of the following initiatives?

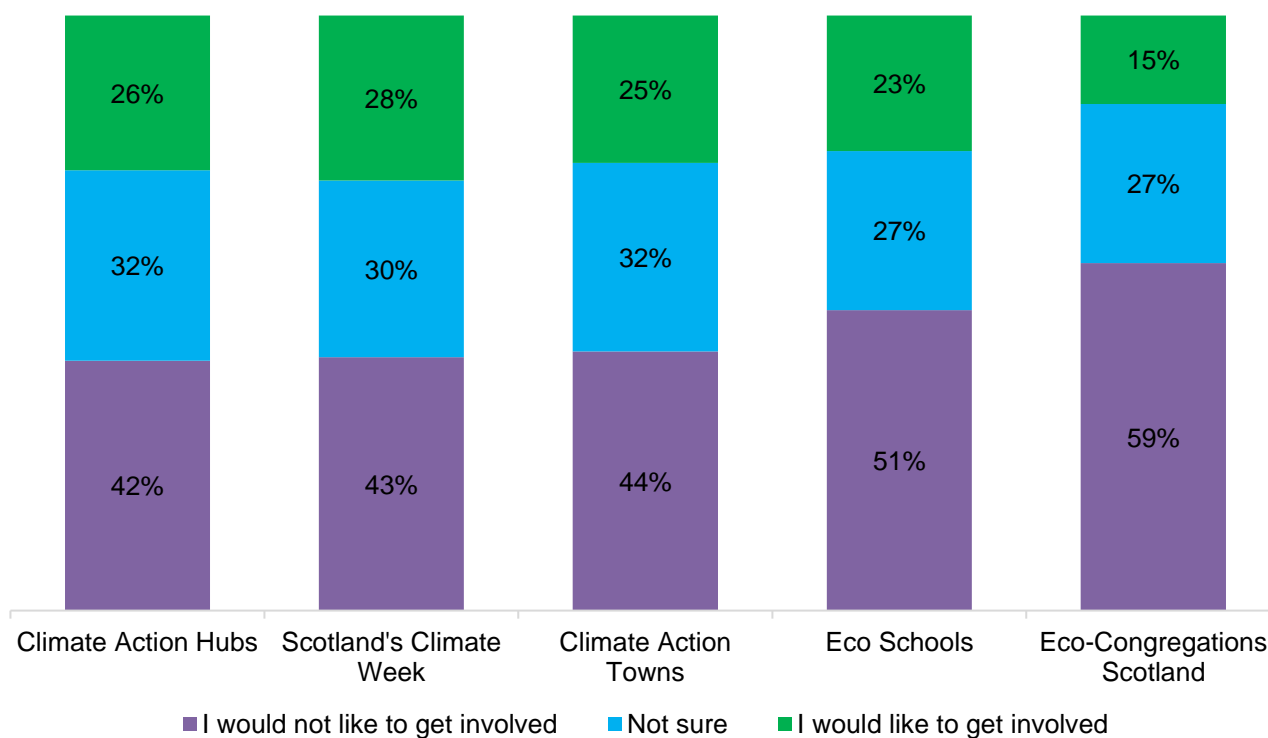


Base: Unweighted base (1782), single response question

No more than one in ten respondents said they had participated in any of the initiatives listed, with the highest proportion of respondents saying they participated in Eco Schools (9%), followed by 7% participating in Scotland's Climate Week.

- At least a fifth of Scottish adults said they'd like to get involved in Scotland's Climate Week (28%), Climate Action Hubs (26%), Climate Action Towns (25%) and Eco Schools (23%).
- For each initiative, around a third of respondents have said they're unsure if they would want to get involved.

Figure 15: How interested would you be in getting involved in any of the following initiatives?



Base: Unweighted base (1782), single response question

- Younger cohorts are more likely to want to get involved, with 18-24-year-olds and 25-34-year-olds significantly more likely to state their interest in getting involved in initiatives to combat climate change.
- Over a third of 18-24-year-olds want to get involved in Scotland's Climate Week (42%), Eco Schools (36%), and Climate Action Towns (35%).
- 25-34-year-olds are more likely to want to get involved in all of the initiatives listed.
- 35-44-year-olds are also more likely to say they want to get involved too, with at least three tenths saying they would like to get involved in Climate Action Towns (30%), Eco Schools (32%), and Scotland's Climate Week (35%).
- Almost half of 14-17-year-olds (49%) would like to get involved in Eco Schools.
- Those who live in the most deprived areas of Scotland are more likely to want to get involved in Climate Action Hubs and Climate Action Towns than the general population (31% cf. 26% and 29% cf. 25% respectively). They are more likely to want to get involved in all initiatives aside from Scotland's Climate Week.

Table 6: Interest in getting involved in climate change initiatives – by age group

	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Scotland's Climate Week	28%	42%	42%	45%	35%	24%	15%	14%
Climate Action Hubs	26%	30%	32%	37%	31%	24%	21%	16%
Climate Action Towns	25%	32%	35%	34%	30%	23%	19%	13%
Eco Schools	23%	49%	36%	38%	32%	18%	13%	6%
Eco-Congregations Scotland	15%	18%	28%	24%	19%	10%	6%	8%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

4. Act

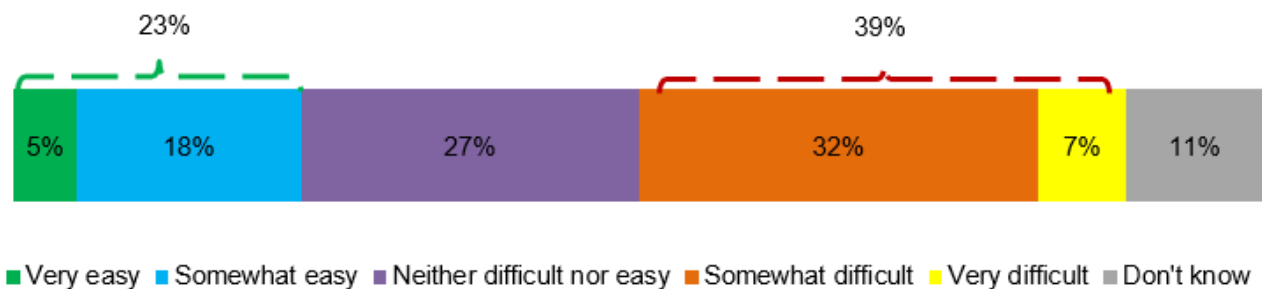
This section explores the actions that the Scottish public is already taking or wants to incorporate into their lifestyle in the future, and the reasons they may not want or feel able to.

4.1 Ease of getting involved in climate action

Four in 10 (39%) Scottish adults state they think it is difficult for members of the public to find opportunities to get involved in climate action. This is a higher proportion than the 23% of adults in Scotland who believe it is easy to do so (Figure 16). Almost half (47%) of those who are interested in getting involved in activities to combat climate change believe it is difficult to find opportunities to get involved in climate action - significantly higher than the average.

However, those who claim to know a lot about climate change, are more likely to find it easy to find opportunities to get involved. More than a third of this group (35%) say it is easy, compared to under a quarter (23%) of the general population.

Figure 16: Thinking generally, how easy or difficult is it for members of the public to find opportunities to get involved in climate action?



Base: Unweighted base (1782), single response question

It is younger adults who think it is harder for the public to get involved in climate action. Table 7 shows that over half (52%) of 25-34-year-olds think it is difficult to find opportunities to get involved in climate action. Within this research, we are unable to tell what respondents might have done to look for opportunities to get involved in combatting climate change. However, because this age group are more engaged and informed, it is possible that they have actively looked for opportunities but have been unable to find them.

The proportion of adults who believe it is difficult to find opportunities to get involved in climate action then decreases as you go up the age categories, with around a third (29%) of those aged over 55-64 years old and aged 65 or over stating they believe it is difficult to come by opportunities to get involved in climate action (29% and 34%).

Table 7: Extent of difficulty for the public to find opportunities to get involved in climate action, by age group

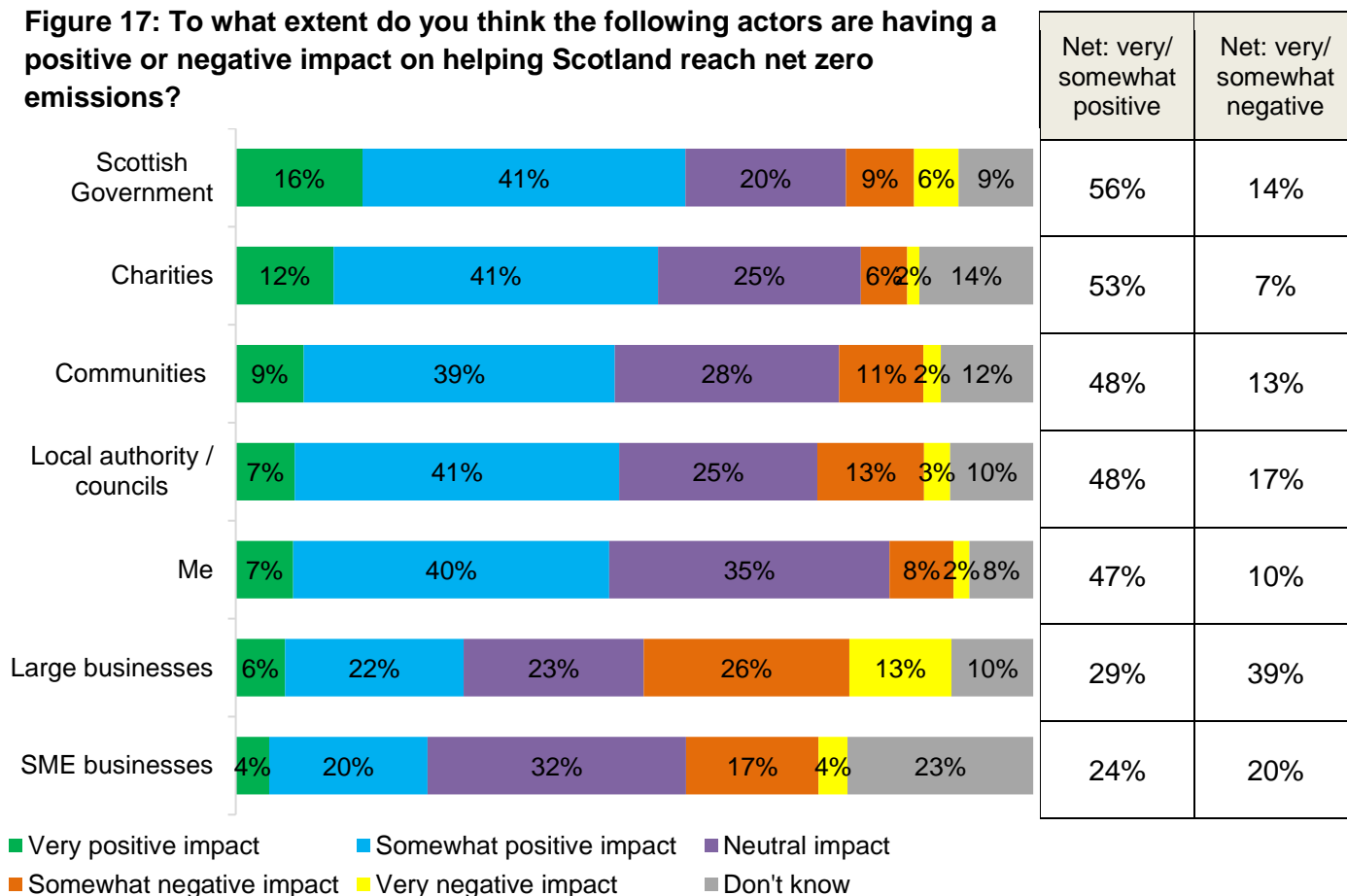
	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Net: Difficult (very difficult / somewhat difficult)	39%	37%	47%	52%	40%	35%	29%	34%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

4.2 Impact on Scotland reaching net zero emissions

When asked about different Scottish actors and the impact they have on helping Scotland reach net zero emissions, there are a range of perceptions. Few actors are seen as having a ‘very positive’ impact, although the ‘somewhat positive’ figures are higher. Figure 17 shows that adults consider large businesses to have the most negative impact on helping Scotland reach net zero emissions of all the actors listed, with four in 10 (39%) ranking them as negative.

Figure 17: To what extent do you think the following actors are having a positive or negative impact on helping Scotland reach net zero emissions?



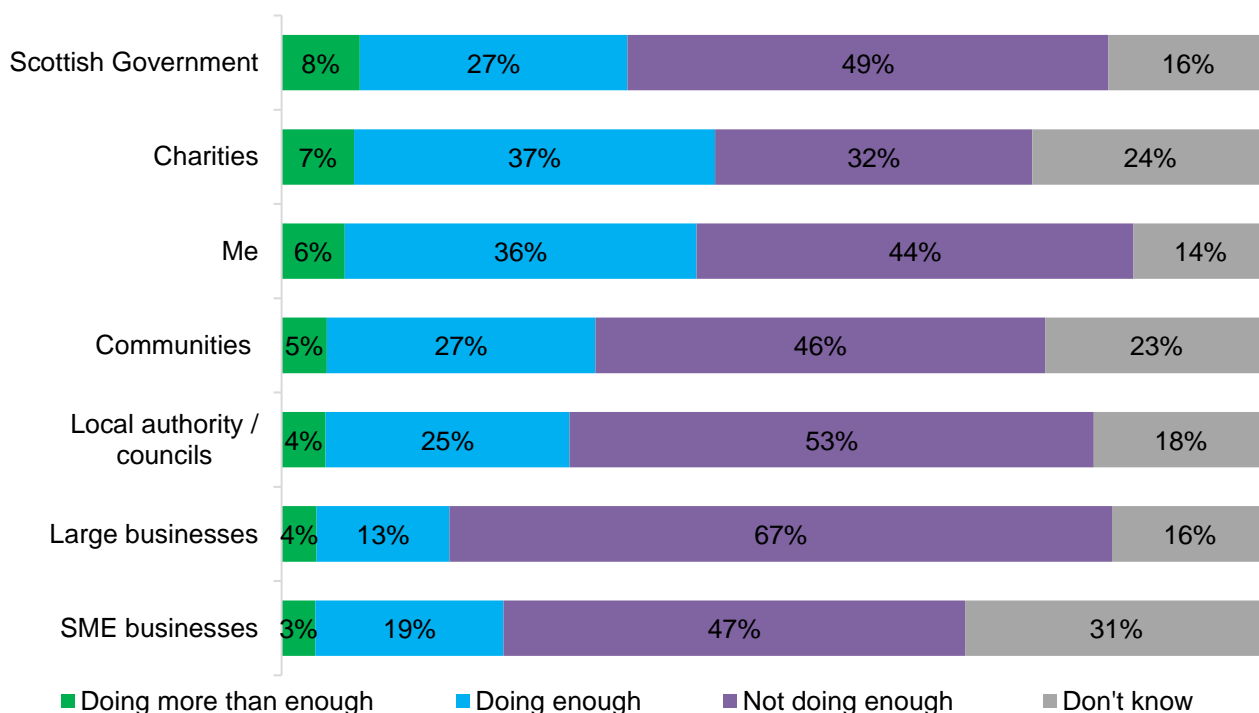
Base: Unweighted base (1782), single response question

The Scottish Government is perceived to have the most positive impact with over half (56%) agreeing they have a positive impact, followed by charities and the third sector (53%) and communities and local authorities/councils (48%). When rating their personal impact on helping Scotland reach net zero emissions, nearly half (47%) of Scottish adults state they have a positive impact.

Respondents were then asked whether they believe these actors are doing enough or not doing enough to help Scotland reach net zero emissions. Even actors who are generally seen as having a positive impact on helping Scotland reach net zero emissions are not seen as doing enough at the moment (Figure 18). For example, the Scottish Government is seen as having a positive impact overall on helping Scotland reach net zero emissions, and yet almost half of Scottish adults say the government is not currently doing enough (49%) – implying that they feel they could be doing even more. Similarly, local authorities and councils are perceived as having a positive impact on reaching net zero emissions, with almost half (48%) of respondents saying so and yet, over half (53%) of respondents say they are not currently doing enough.

Overall, more people say charities are doing enough or more than enough to help Scotland reach net zero emissions than any other actors, with over two fifths saying they are at doing enough or more than enough (44%). This is followed by people themselves, with 42% of Scottish adults saying they believe they are doing enough or more than enough to help Scotland reach net zero emissions.

Figure 18: To what extent do you think the following actors are currently doing enough or not doing enough to help Scotland to reach net zero emissions?



Base: Unweighted base (1782), single response question

Across all age groups, large businesses are the group most likely to be considered to not be doing enough to help Scotland reach net zero emissions. 25-34-year-olds are the age category most likely to rank themselves as 'not doing enough', which may reflect greater levels of knowledge and concern in this age group, rather than necessarily less action.

4.3 Pro-environmental actions

The pro-environmental action that most respondents currently do is recycling packaging, with the majority (93%) of respondents saying they do this – 70% saying they do so always. Recycling is followed by eating more plant-based foods, with over half (54%) of respondents saying they do this (Figure 20). Approximately a quarter (26%) of respondents currently live car free. Only around one in ten (12%) plan to live car free in the future, with the majority (59%) stating they do *not* live car free and do not plan to do so. Having renewable based heating in their house is the action that the least respondents stated that currently do (12%). Over a third (37%) of respondents stated that they plan to have renewable based heating in the future. However, 37% also stated that they do *not* plan to do this (Figure 19).

Figure 19: In general, which, if any, of the following statements apply to you? (16+ only)

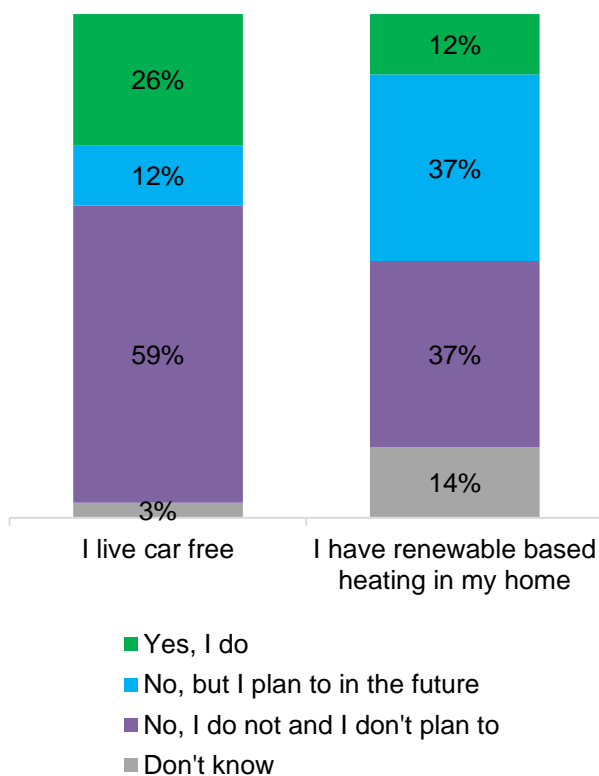
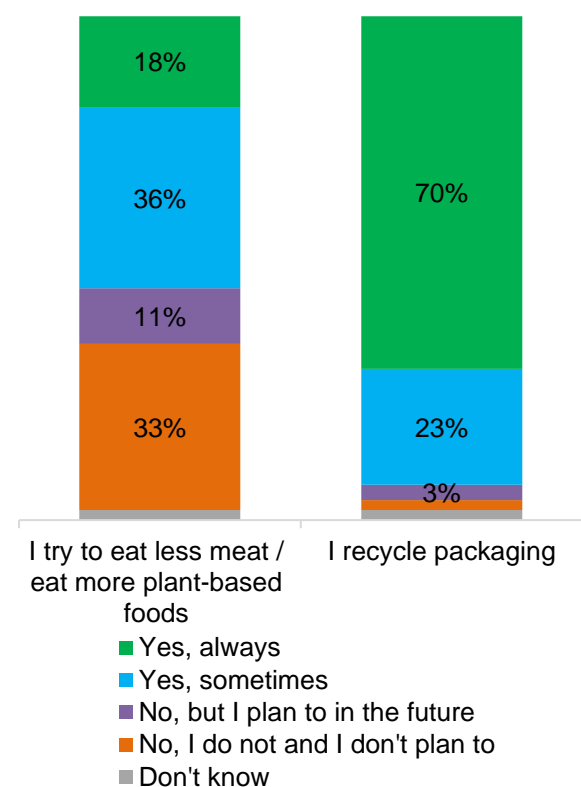


Figure 20: In general, which, if any, of the following statements apply to you?



Unweighted base (1623), single response question

Unweighted base (1782), single response question

- Those who have a household income of £52,000 or more are less likely than average to say they live car-free than the general population (13% cf. 26%). These respondents are more likely to say they plan to install renewable based heating in their homes in the future (46% cf. 37%).
- Almost two thirds of highly educated respondents currently try to eat less meat or eat more plant-based foods (64% cf. 54%).
- Respondents who live in the most deprived areas are significantly more likely to currently live car free than those in the least deprived areas (39% cf. 18%). Those in the least deprived areas are also significantly more likely to say they do not live car free and do not plan to so (71% cf. 59%). Respondents in rural areas are more likely to say they always recycle packaging, with 80% of them saying so compared to 70% of the general population.

Table 8: Green actions, by age group

	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Live car free	26%	23%*	38%	34%	24%	24%	23%	19%
Have renewable based heating in home	12%	12%*	21%	19%	10%	11%	9%	8%
Eat less meat / eat more plant-based foods	54%	49%	46%	61%	54%	55%	51%	54%
Recycle packaging	93%	90%	85%	88%	91%	92%	97%	99%

*Low base size as only those aged 16 and over were asked this question

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

Younger age groups are more likely to currently live car free or have renewable based heating in their homes (Table 8). Over a third of 18-24-year-olds and 25-34-year-olds say they live car free (38% and 34% respectively), whilst around a fifth say they have renewable based heating in their home (21% and 19% respectively). Over three fifths (61%) of 25-34-year-olds also say they eat less meat, significantly more than the total population.

Conversely, the vast majority of older age groups are more likely to say they currently recycle packaging. 97% of 55-64-year-olds and 99% of those aged 65 and over say they currently do so.

Table 9: Green actions not currently done but planned for the future, by age group

	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Live car free	12%	16%*	17%	16%	12%	12%	6%	10%
Have renewable based heating in home	37%	48%*	35%	45%	45%	42%	31%	28%
Eat less meat / eat more plant-based foods	11%	15%	19%	11%	12%	10%	7%	8%
Recycle packaging	3%	6%	3%	6%	5%	4%	-	-

*Low base size as only those aged 16 and over were asked this question

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

Higher proportions of 25-34-year-olds answer that they are more likely to incorporate green actions into their lives in the future than older cohorts (Table 9). Nearly two fifths (16%) of 25-34-year-olds, for example, say they will live car free, compared to just one tenth of those aged 65 or over (10%). Similarly, over two fifths (45%) of 25-34-year-olds and 35-44-year-olds say they will have renewable based heating in their home in the future, compared to over a quarter of those aged 65+ (28%).

18-24-year-olds are significantly more likely than total to say they plan to eat less meat (19% and 11% respectively). 14-17-year-olds have the second highest proportion of respondents saying they plan to eat less meat (15%).

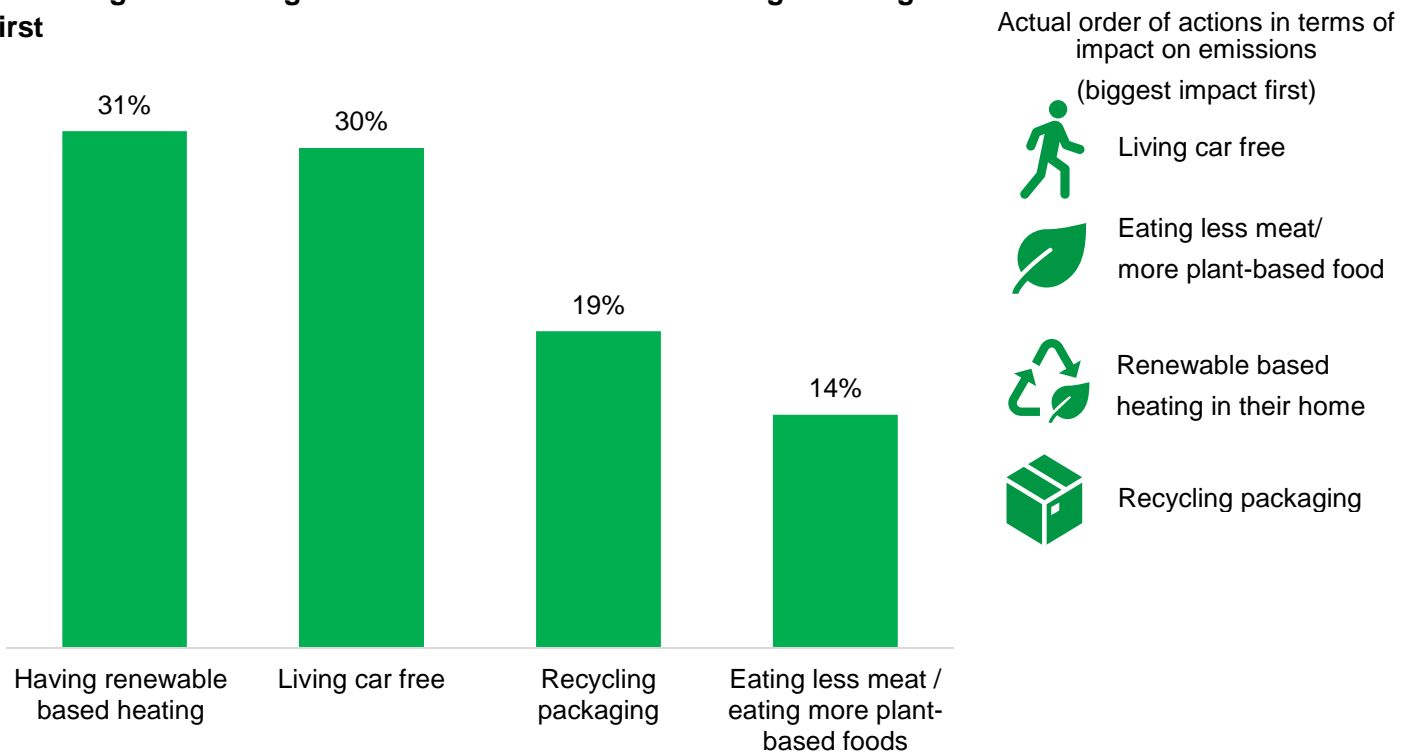
4.4 Pro-environmental actions and their impact

Of the four actions previously asked about, having renewable heating in homes and living car free were ranked equally by respondents as the actions they thought would reduce greenhouse gases the most. Almost a third (31% and 30% respectively) of respondents identified one of these two actions as having the biggest effect (Figure 21). Around a fifth (19%) selected recycling packaging as the action with the biggest effect, and 14% selected eating less meat or more plant-based foods.

Recent research has suggested that living car free is likely to be the action that would reduce greenhouse gas emissions the most, followed by adopting a vegan diet, installing renewable based heating at home and recycling packaging.⁷

⁷ Taken from research report published in Environmental Research Letters, Volume 15, Number 9. [Quantifying the potential for climate change mitigation of consumption options - IOPscience](#)

Figure 21: At an individual level, which of these actions do you think reduces greenhouse gas emissions the most? Percentage ranking each first



Base: Unweighted base (1782), 5% answered 'don't know', ranked response question. Correct response sourced from [IOPscience - Quantifying the potential for climate change mitigation of consumption options](#)

Three in 10 respondents (30%) accurately ranked living car free as the action that would have the biggest impact on reducing greenhouse gas emissions. 16% accurately ranked eating less meat / eating more plant-based foods second. 20% correctly ranked having renewable based heating in their homes as being the third most impactful action. 27% were right in ranking recycling packaging as the least most impactful action.

4.5 Reasons for not doing pro-environmental actions

Where a respondent said they do not currently do one of the green actions listed above, they were then asked what stops them from doing that action, with responses set out in Figure 22.

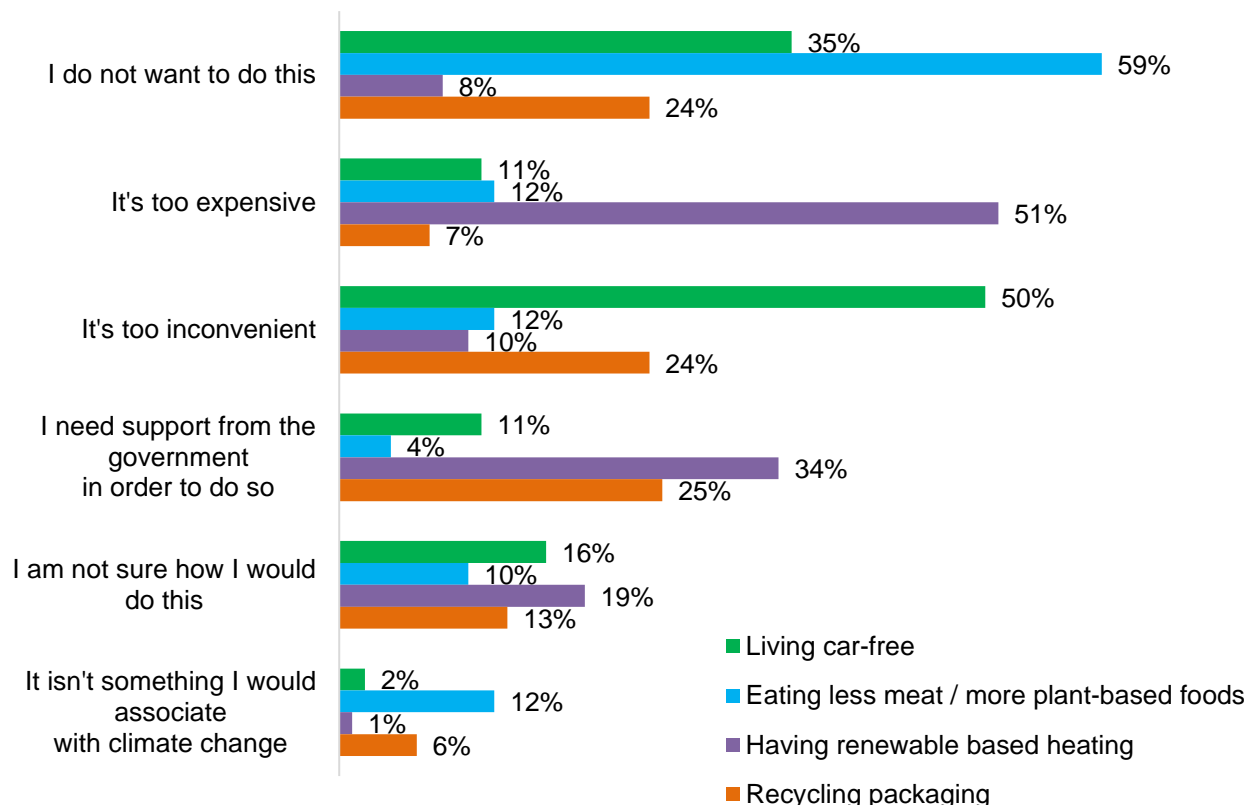
When asked why they do not live car free, half of respondents (50%) state that it is the inconvenience to their lives that prevents them from doing so. Over a third (35%) also said they simply did not want to do so. When asked why they do not eat less meat or more plant-based foods, six in 10 respondents (59%) said they did not want to do so. Over half (51%) of Scottish adults noted the expense of installing renewable based heating in their home, with a third (34%) saying they would need government support in order to do so.

18-24-year-olds are more likely to say they do not live car free than the total population because it is too inconvenient (63% cf. 50%). Over two thirds (68%) of 55-64-year-olds say

they don't eat less meat simply because they don't want to, compared to 59% of the total population.

Under three tenths (29%) of rural respondents say they do not live car free currently because they don't want to. This is significantly lower than the general population, where over a third (35%) of the general population say so. Those who live in the least deprived areas of Scotland are more likely to say that cost is a barrier to installing renewable based heating in their homes (58% cf. 51%).

Figure 22: Thinking about the actions you don't do, why not?

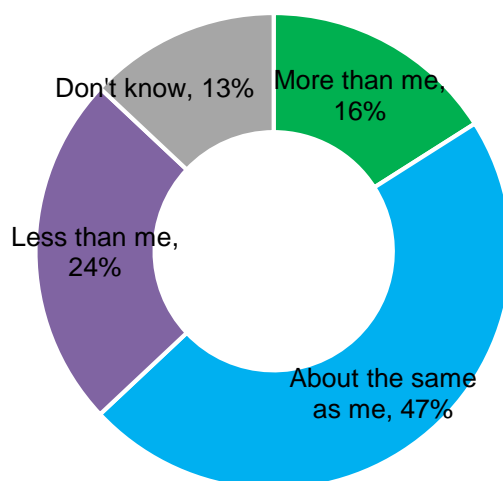


Unweighted base: Living car-free (1155); Eating less meat / more plant-based foods (786); Having renewable based heating (1197); Recycling packaging (77), multiple response question

4.6 Individual perceptions on pro-environmental actions

Finally, when asked whether they felt others were doing more or less than them to tackle climate change, almost half of the Scottish public (47%) said that on average, people are doing about the same as them to tackle climate change. Nearly a quarter (24%) of people said others are doing less than them (Figure 23).

Figure 23: Do you feel that, on average, other people are doing more or less than you to tackle climate change?



Base: Unweighted base (1782), single response question

When looking at those who say others are doing less than them by age cohort (Table 10), 25-34-year-olds and 45-54-year-olds are significantly more likely than average to say that others are doing less than them to tackle climate change (both 29%). Moreover, the proportion of those who agree that others are doing less than them decreases in older age groups, with just over a fifth (21%) of those aged 55-64 and 65s or overs saying so. 14-17-year-olds are the least likely to believe that others are doing less than them, with less than one fifth believing others do less than them (17%).

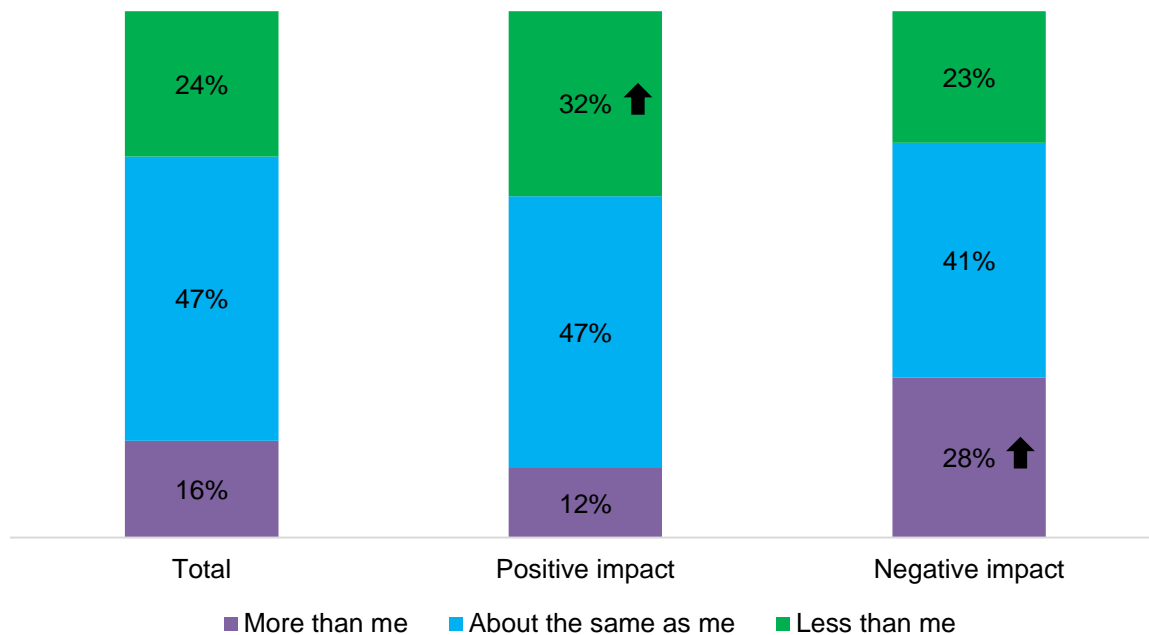
Table 10: Others are doing less than me to tackle climate change, by age group

	Total	14-17	18-24	25-34	35-44	45-54	55-64	65+
Less than me	24%	17%	23%	29%	22%	29%	21%	21%

Note: All statistically significant changes from the total are **highlighted**. Green highlights denote data significantly higher than total. Blue highlights denote data significantly lower than total.

Figure 24 demonstrates that respondents who believe they have a positive impact on Scotland reaching net zero emissions, believe that others are doing less than them to tackle climate change. Almost a third of those who believe they have a positive impact on net zero emissions (32%) believe others are doing less than them to tackle climate change, compared to just under a quarter of the general population (24%). Conversely, more respondents who believe they have a negative impact on helping Scotland reach net zero emissions say others are doing more than them to tackle climate change (28% cf. 16%).

Figure 24: Do you feel that, on average, other people are doing more or less than you to tackle climate change? – by those who believe they have a positive or negative impact on helping Scotland reach net zero emissions



Base: Unweighted base (1782), single response question

Note: Arrows signify data that is significantly higher than total to a confidence of 95%.

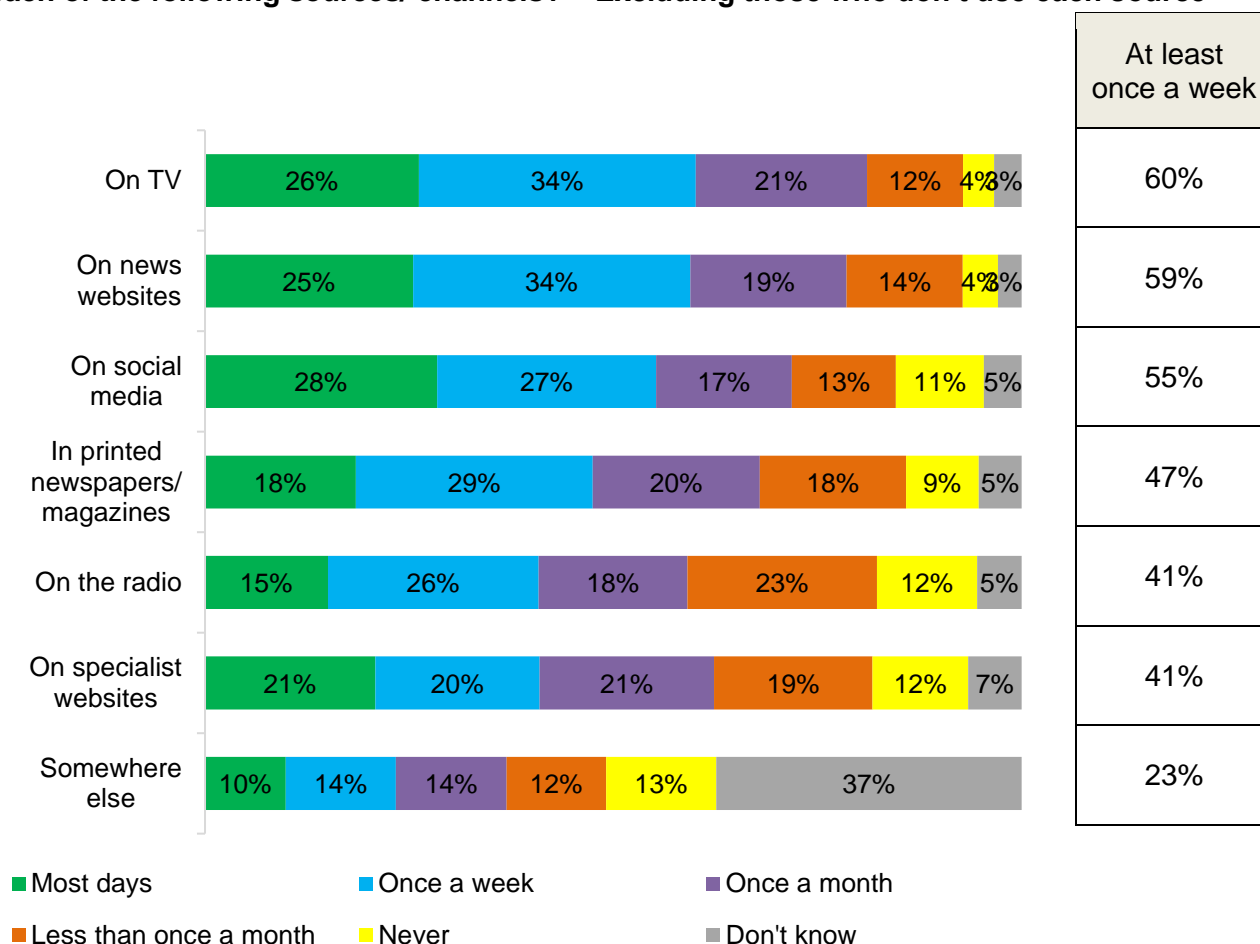
Appendix 1: Further analysis

When looking at the question “*in general, how often do you see or hear information about climate change from each of the following sources/channels?*” asked in this survey, the Scottish Government requested further analysis whereby those not using each source are excluded from the data. These are included in the figures below. For ease of comparison, these figures are numbered to correspond with the equivalent figure used in the main part of the report. So Figure 3a below corresponds to Figure 3 in the main report.

When excluding those who do not use each source, at least half of those who watch TV (60%), read news websites (59%), or use social media (55%) are seeing information on climate change at least once a week on each respective platform.

Those who listen to the radio (41%) or visit specialist websites (41%) are seeing information on climate change less frequently – only two fifths see it at least once a week.

Figure 3a: In general, how often do you see or hear information about climate change from each of the following sources/ channels? – Excluding those who don’t use each source



Unweighted bases (1044 - 1660), single response per source

Appendix 2: Extended methodology

Mode of data collection

Data was collected using an online panel survey. An online panel is defined as an online group of recruited people willing to conduct social and market research surveys in return for a small financial incentive for each survey completed. The survey took approximately 10-15 minutes to complete.

A 'panel blend' approach was taken to fieldwork. This involves blending the sample across a number of research panels to increase the potential overall sample size, help ensure good coverage across key demographic groups, and to reduce the risk of panel biases that can sometimes occur by relying solely on a single panel provider. The panels used for this project were:

- Panelbase
- Made in Surveys
- Lucid
- YouthSight – youth specialist, used to reach those aged 16 and 17

The survey was created using Confront software, a bespoke survey software used throughout the industry. It is a device-responsive survey platform that automatically detects the device being used and optimises the look and feel for that device using predetermined layouts, including optimisation for phone and tablet completions. The software also allowed participants to pause completion at any time and finish the survey at a time more convenient for them.

Cognitive testing

Cognitive interviewing is a widely used pre-testing tool, in which respondents are asked to report directly on the internal cognitive processes employed to answer survey questions. Interviewers probe the meaning of specific terms or the intent of specific questions throughout the interview. A small number of purposively chosen respondents are interviewed and the results are not generalisable to a larger population.

Key questions were tested in 8 verbal cognitive interviews. Testing focussed on areas in the questionnaire identified in the initial desk appraisal phase as warranting further exploration to help ensure framing, wording and structure was correct.

Interviews were conducted via telephone or video call in mid-March. Cognitive interview participants completed the interviews via telephone or video call and were emailed a copy of the questionnaire prior to the interview. Interviews were conducted with a broad demographic and regional mix of and followed a verbal probe approach using a semi-concurrent probing technique. Many probes were tailored to be question specific, but typical probes included:

- How did you find answering this question?

- Can you tell me in your own words what the question was asking?
- How easy or difficult did you find this question to answer?
- What did [insert question or response term] mean to you?

The changes recommended were mostly nuances to question wording to enable greater audience comprehension.

Sampling and fieldwork

The final questionnaire was scripted and then tested before being signed-off. Fieldwork took place between the 21st March and 3rd April 2022. If conducting waves in future years, it is advisable that the survey is fielded during a time period so as to ensure seasonal effects are not behind shifts in attitudes and behaviors.

Representative quotas were set on age by gender, region and ethnicity. An additional 20% of the original representative value was added to each quota cell to ensure a degree of flexibility. A total of 1,782 respondents completed the survey. The final sample included:

- 1,502 respondents aged 18+
- 280 respondents aged 14-17

The early survey completes were extracted and reviewed to 'sense-check' the data. These checks included ensuring that the number of valid responses were being correctly recorded and checking the survey logic and routing was working as intended.

There were two main versions of the survey, one for adults aged 16 and above and one for young people aged 14 and 15. Young people below the age of 16 were recruited via their parents/guardians, with consent taken before the survey was completed. Once the initial adult component was completed, and the adult answered some basic demographic questions about their child, the survey was handed over to the young person to complete the main body of the questionnaire.

Given the youth component was targeting a relatively small part of the Scottish population, we employed two variants of the young person survey to maximise the available sample as far as possible. One version saw the parent/guardian handover to their 14- or 15-year-old near the beginning of the survey after completing some initial demographic information (without completing the substantive questions themselves).

In the other version, the handover process came after the parent/guardian had themselves completed the survey (where their earlier responses identified they were responsible for a child aged 14 to 15 in the household). As was the case for the entire sample, IP based quality checks ensured no respondents could take part in both variants and all respondents were unique.

Data processing and analysis

The young person questionnaire was tailored so that questions that were not relevant to young people were not asked to this part of the sample. However, changes between the two versions were minimal, allowing the data to be merged and treated as one wider dataset of respondents aged 14+ for the vast majority of survey questions.

With the exception of the coding of responses to open-ended questions, no data entry phase was required for this survey. The programmed script ensured that all question routing was performed automatically, and no post-editing of the data was required in the way that might be necessary for surveys administered using a 'Pencil and Paper' method.

Responses from questions with an 'other – specify' option were analysed and, if appropriate, back-coded into one of the pre-coded categories. If the response could not be assigned to an existing code but gained a sufficient number of mentions, a new code was created which all relevant responses were assigned to. Coding was carried out by a specialist team.

Data tables were produced using comprehensive spec that included down break and cross break definitions, as well as details of weights. The resulting tables were then used to analyse the data and report the findings. Each table included notation for significance testing – throughout the report the term “significant” is only used to describe differences between particular groups that are statistically significant to 95% confidence. This means that there is only a 5% probability that the difference has occurred by chance (a commonly accepted level of probability), rather than being a 'real' difference.

The report focuses on where statistically significant differences have been identified. Where differences are discussed during the commentary of the report, these differences can all be presumed to be statistically significant unless otherwise noted. Where results appear as though they should be statistically significant but have not been highlighted, this is due to a lower base size.

It is important to note that the online panel interviews rely on quota sampling. Despite being standard practice in social and market research, there are some theoretical caveats to bear in mind with using formal statistical significance tests on quota sample data including bias and lack of known sampling probability. Therefore, it is advised that any results of statistical significance tests are used as a guide and should always be interpreted with a degree of caution.

Weighting

The survey data used for this report is weighted to ensure the data is representative of the Scottish population aged 14+.

Results for respondents aged 14-17 were weighted by age, gender and region.⁸ Results for those aged 18+ were also weighted by these variables, with the addition of targets for ethnicity and educational attainment.⁹ Targets are provided in the tables below.

To ensure an adequate sample size for sub-group analysis, respondents aged 14-17 years old were purposefully oversampled. However, age weighting ensures that the total sample is not skewed as the proportion of those aged 14-17 is adjusted to be representative.¹⁰

Unweighted and weighted response counts by region, age and gender and some other metrics are presented in the sample profile in the Appendix.

Age by gender			
Age group	Female	Male	Total
14-17	2.3%	2.5%	4.8%
18-24	4.8%	5.0%	9.8%
25-34	8.1%	8.0%	16.1%
35-44	7.4%	7.2%	14.6%
45-54	8.2%	7.7%	15.9%
55-64	8.3%	7.8%	16.1%
65+	12.4%	10.2%	22.6%
Total	51.7%	48.3%	100%

Region	%
Central Scotland	12.1%
Glasgow	12.7%
Highlands and Islands	8.8%
Mid Scotland and Fife	12.1%
North East Scotland	14.2%
Lothian	14.2%
South Scotland	12.6%
West Scotland	13.3%

⁸ Targets taken from ONS mid-year population estimates.

⁹ Ethnicity targets taken from 2011 census. Educational attainment targets taken from the 2019 Scottish Household Survey.

¹⁰ 280 respondents aged 14-17 were interviewed, but the weighted base is 86 (4.8% of the population).

Ethnicity	%
White British/Scottish/Irish	95.2%
Ethnic minority	4.8%

Highest qualification	%
No / other qualifications	20.0%
Non-degree level qualifications	47.0%
Degree or above qualifications	33.0%

Appendix 3: Sample profile

The table below summarise the profile of Scottish adults who took part in the survey. Where answers within the same category do not add up to the total number of respondents, this is because some participants chose not to provide this information.

		Base size	% Unweighted	% Weighted
Region	Central Scotland	215	12%	12%
	Glasgow	233	13%	13%
	Highlands and Islands	126	7%	9%
	Mid Scotland and Fife	224	13%	12%
	North East Scotland	257	14%	14%
	Lothian	271	15%	14%
	South Scotland	211	12%	13%
	West Scotland	245	14%	13%
Age sample	14 to 17	280	16%	5%
	18 to 24	141	8%	10%
	25 to 34	279	16%	16%
	35 to 44	297	17%	15%
	45 to 54	250	14%	16%
	55 to 64	288	16%	16%
	65+	247	14%	23%
Gender	Male	760	43%	48%
	Female	965	54%	52%
	Other	48	3%	*%
Disability	Yes	442	25%	25%
	No	1305	73%	73%
	Prefer not to say	35	2%	2%
Ethnicity	White	1678	94%	95%
	Ethnic minority	98	5%	5%
Education	No / other qualifications	144	9%	16%
	Non-degree level qualifications	735	45%	42%
	Degree or above qualifications	608	37%	32%



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