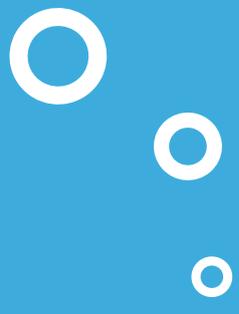




Climate Change in the Irish Mind

Wave 2 Report 1



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1. Key Findings

Awareness	<p>The 'Climate Change in the Irish Mind' survey found that most people in Ireland (78%) say they know at least a moderate amount about climate change. Nearly all Irish people (95%) think climate change is happening and is caused, at least in part, by human activities (92%; including 53% who say it is mostly human caused and 39% who say it is caused about equally by human and natural changes).</p>
Worry	<p>A large majority of people in Ireland (81%) are worried about climate change, including 34% who describe themselves as "very worried".</p>
Who Will Be Harmed?	<p>Nearly all Irish people think future generations of people (95%), people in developing countries (93%), and plant and animal species (92%) will be harmed "a great deal" or "a moderate amount" by climate change. 54% think that people in Ireland are being harmed "right now" by climate change, and 21% think that it will start to harm people in Ireland in the next 10 years.</p>
Extreme Weather Events	<p>Nearly nine in ten people in Ireland (88%) think climate change is affecting the weather in Ireland, and 75% think extreme weather poses either a "high" or "moderate" risk to their community over the next 10 years.</p> <p>Since 2021, the percentage of people in Ireland who are at least "somewhat worried" about severe storms has increased by 10 percentage points (74% vs. 64%), and the percentage who are at least "somewhat worried" about extreme heat has increased by nine percentage points (54% vs 45%).</p>
Environmental Hazards	<p>The survey found that people in Ireland are worried about local environmental hazards, reporting high levels of concern for water pollution (79%), severe storms (74%), air pollution (68%), flooding (62%), rising sea levels (61%), water shortages (55%), agricultural pests and diseases (55%), extreme heat (54%), and invasive species (54%). Fewer are worried about droughts (43%), wildfires (32%), or bog bursts or landslides (24%).</p>
Engagement	<p>Irish people are highly engaged on the topic of climate change. 89% say climate change is important to them personally, and 78% report that they "often" or "occasionally" discuss climate change with family and friends. About three-quarters reported that they hear about climate change in the media once a week or more often, an increase in engagement with media on climate change of 23 percentage points, from 51%, since 2021.</p>
Trust	<p>Scientists are the most trusted source of information about climate change among the Irish people. Other highly trusted sources include the Environmental Protection Agency (88%), educators (87%), family and friends (85%), television weather reporters (84%) and community leaders (68%).</p> <p>Eight in ten (80%) understand that most scientists think climate change is happening.</p>

<p>National Responsibility</p>	<p>87% of people in Ireland say the country has a responsibility to act on climate change and should do what it can to reduce its own greenhouse emissions. In contrast, only 12% say Ireland is too small to make a difference on climate change and should let other countries take the lead.</p>
<p>Economic and Quality of Life Benefits</p>	<p>Irish people are positive about the economic and quality of life benefits that could be achieved through climate action. A majority (56%) think climate action will improve economic growth and create jobs, and 74% say taking action to reduce climate change will improve Ireland's quality of life.</p>
<p>Support for Government Policies</p>	<p>A majority of Irish people support climate action policy. 79% say that climate change should be either a "very high" or "high" priority for Government.</p> <p>While still retaining majority backing, the support for prohibitive policies has weakened in 2023 compared to 2021. The overall proportion supporting bans on peat, coal and oil for home heating has decreased by nine percentage points to 59% since 2021, and overall support for higher taxes on cars that use petrol or diesel has decreased by 13 percentage points to 51%.</p>
<p>Cost of Living and outlook on climate action</p>	<p>Attitudes of Irish people towards climate action policy have held firm despite cost-of-living increases since 2021. Those who reported at least some difficulty making ends meet in the last 12 months gave the same levels of support to most climate action policies as those who have not experienced any difficulties making ends meet. The exceptions were policies on "higher taxes on cars that use petrol or diesel", and on "banning peat, coal, and oil for home heating" where there was weaker support from those who had experienced difficulties making ends meet.</p>
<p>Consumer Behaviours</p>	<p>About half of people in Ireland say they have made a purchase from a company that is taking action to reduce climate change in the past year, including 5% who say they have done so "many times". Additionally, 47% say they intend to increase their consumer activism in the next year.</p> <p>Four in ten say they have punished companies that are opposing steps to reduce climate change by not buying their products one or more times in the last 12 months, including 4% who say they have done so "many times".</p>
<p>Climate Literacy</p>	<p>There is very high recognition (95%) of climate change terms like the "greenhouse effect", but only a small percentage of the Irish public (5%) can distinguish the greenhouse effect from other environmental topics such as acid rain, or the ozone layer.</p> <p>A majority of Irish people correctly identified that avoiding long distance flights and switching to renewable energy sources would have a large impact on the average person's carbon footprint. However, a large majority underestimated the carbon footprint effects of dietary changes such as eating a plant-based diet.</p>

2. Introduction

The 'Climate Change in the Irish Mind' study (CCIM) is a nationally representative study of the Irish people's beliefs, attitudes, policy preferences and behaviours regarding climate change. The Wave 1 baseline survey of CCIM was undertaken in 2021 with additional waves intended to examine changes over time.

The Climate Change in the Irish Mind study was undertaken by the Irish Environmental Protection Agency (EPA) and the Yale Program on Climate Change Communication (YPCCC) in support of the National Dialogue on Climate Action. The approach to the study is based on the established methodology of the "Climate Change in the American Mind" survey conducted by the YPCCC and the George Mason University Center for Climate Change Communication, which was tailored to meet Ireland's particular socio-economic context.

Publications derived from Climate Change in the Irish Mind at Wave 1 included:

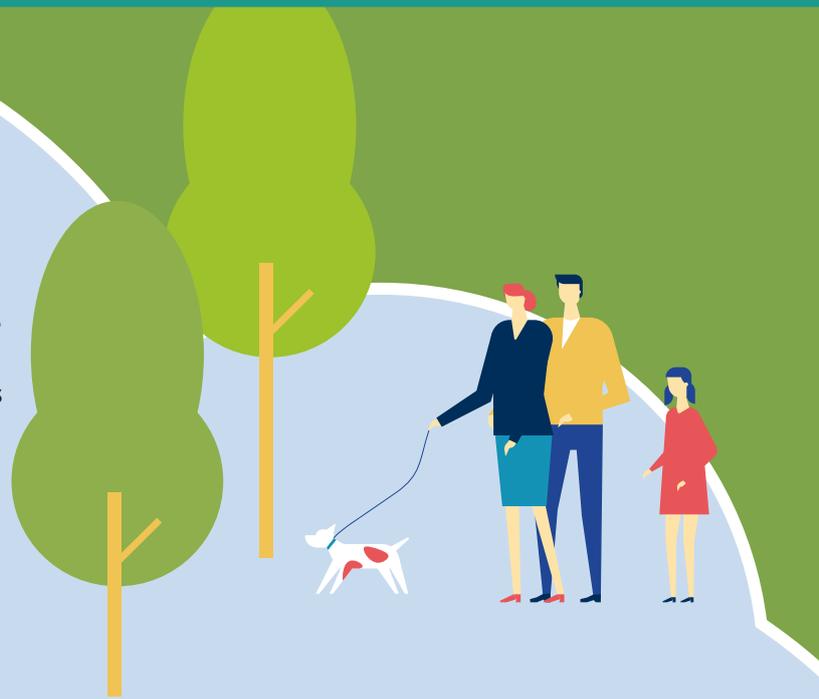
- CCIM Wave 1, Report 1 '[Climate Change in the Irish Mind](#)' which provided topline survey results.
- CCIM Wave 1, Report 2 '[Climate Change's Four Irelands](#)' identified several distinct audience segments within the Irish population and provided insights into how each segment responds to climate issues.
- A CCIM Wave 1 [interactive mapping tool](#) provided estimates of public climate change beliefs, attitudes, policy support and behaviour at the national, regional, and county levels.
- Four CCIM Insight reports expanded a selection of findings from Wave 1 in greater detail.

This publication: 'Climate Change in the Irish Mind: Wave 2, Report 1' sets out the main findings of the second wave of CCIM, which was carried out in 2023. Findings at Wave 2 are explored under four key themes of:

- Climate Beliefs and Attitudes
- Climate Policies
- Climate-Related Behaviours
- Climate Literacy

CCIM: Wave 2, Report 1 will be followed by an updated Wave 2 Segmentation report. The interactive mapping tool developed at Wave 1 will be expanded with new findings which will refine the statistical model established with the Wave 1 data.

The information provided by the reports and maps has proved a valuable resource in support of the NDCA enabling the EPA to advise national, regional, and local stakeholders, including the Department of the Taoiseach, Department of the Environment, Climate and Communications (DECC), and the Climate Action Regional Offices (CAROs), by providing data, tools and insights that support effective public engagement.





The structure of the CCIM Wave 2 Main Report remains similar to the Main Report at Wave 1 as a set of core questions were retained to maintain consistency between study waves.

A new set of questions have been added to Wave 2 in order to explore the topic of climate literacy in the Irish public, and a new demographic question explores 'difficulty making ends meet in the last 12 months'.

To keep the survey interview to a manageable length, a set of questions on climate change 'media sources' and a set of questions on 'political actions to limit climate change' were removed.

The topic-based blocks of questions are designed to be modular and may be re-inserted into the questionnaire at a future wave of CCIM. This allows a set of core questions to provide longitudinal consistency while modular questions allow exploration of topical climate change issues at each wave.

This work will continue to support the EPA's role as a knowledge hub on climate information, behaviours, and activities within the National Dialogue on Climate Action. Beneficiaries include the public, policy makers in government, local authorities, researchers, and the non-governmental sector who will have access to the tools and reports.

3. Methodology

Fieldwork: CCIM Wave 2 fieldwork was conducted between the 30th of August and the 6th of October 2023 by the survey company Behaviour & Attitudes following a recognised industry standard.

The survey was conducted with a representative sample of the Irish people, aged 18 years and over. Survey respondents were recruited using a random digit dial sample of live Irish telephone numbers. A total of 22,862 numbers were contacted by telephone, about 80% of survey respondents were reached through mobile phone numbers and 20% through landline phone numbers. A total of 1,355 interviews were completed (including 25 pilot interviews to test survey wording and timing), for a response rate of 5.9%¹. All questionnaires were administered by call agents using computer-assisted telephone interviewing (CATI) software. The survey took, on average, 25 minutes to complete.

¹ Wave 1 of CCIM (2021) used a sample size of (N = 4,000) to build the statistical model underlying the CCIM Climate Opinion Maps Wave 2 of CCIM (2023) uses a sample size of (N = 1,330) for the Main Report, but builds on the statistical model from Wave 1 for the mapping output which uses an effective sample of (N = 5,330). Please see the [Methodology](#) and [FAQ](#) pages of the [Climate Opinion Maps](#) for more details.

Gender, age, work status, and region quotas were used to ensure sample representativeness. Key demographic variables were also weighted, post-survey, to match Central Statistics Office norms. A summary demographics table is available on the [Climate Change in the Irish Mind project Page](#) contained in the [EPA website](#).

Rounding error and tabulation: For tabulation purposes, percentage points are rounded to the nearest whole number. As a result, percentages in a given chart may total slightly higher or lower than 100%. Summed response categories (e.g., “strongly support” + “somewhat support”) are rounded after sums are calculated. For example, in some cases, the sum of 25% + 25% might be reported as 51% (e.g., 25.3% + 25.3% = 50.6%, which, after rounding, is 51%).

Margin of error and reporting trends: The margin of error is +/- 3 percentage points with 95% confidence² in the CCIM Wave 2 survey. This represents an area of uncertainty of plus or minus 3 percentage points around any findings. This is a standard and desirable level of accuracy for large scale surveys. This also implies that any reported differences must be on the order of 6 percentage points or more in order to be considered statistically significant. Caution should be exercised in interpreting small differences between groups, or between findings from CCIM Wave 1 and Wave 2.

² A 95% confidence level of population size 4,761,865 (2016 - CSO population), with a margin of error of +/- 3 percentage points, requires a sample size of 1,067. The Wave 2 sample included 1,330 interviews

4. Key Messages

4.1 Climate Change Beliefs and Attitudes

4.1.1 Climate change beliefs

The 'Climate Change in the Irish Mind' survey found that most people in Ireland (78%) say they know at least a moderate amount about climate change.

Nearly all Irish people (95%) think climate change is happening. A majority of people in Ireland (53%) say that climate change is mostly human-caused and another 39% say it is caused about equally by human activities and natural changes.

A large majority of people in Ireland (81%) say they are at least "somewhat worried" about climate change, including about one in three (34%) who describe themselves as "very worried".

More than half of Irish residents (54%) think people in Ireland are being harmed "right now" by climate change, with an additional 21% who think harm will occur within the next 10 years. In contrast, there are only small numbers of people who think climate change will "never" harm people in Ireland (4%) or will only harm them in the distant future ("in 50 years" 8%; "in 100 years" 3%).

More Irish people think climate change will harm others than think it will harm them personally. Nearly all Irish people think that future generations of people (95%), people in developing countries (93%), and plant and animal species (92%) will be harmed "a great deal" or "a moderate amount" by climate change. While 63% of people in Ireland think they themselves will be harmed by climate change, only 15% think climate change will harm them "a great deal".

About eight in ten people think people in Ireland will be harmed (83%), and seven in ten, or more, think the Irish way of life (79%), their family (77%), and people in their community (77%) will be harmed. Two in three think Irish historic sites (68%) will be harmed by climate change.

4.1.3 Personal engagement with Climate change

The survey indicated that Irish people are highly engaged on the topic of climate change. About three-quarters (74%) reported that they hear about climate change in the media once a week or more often, an increase in engagement with media on climate change of 23 percentage points, from 51%, since 2021.

A large majority of Irish people (78%) report that they “often” or “occasionally” discuss climate change with family and friends. Additionally, almost nine in ten Irish people (89%) say climate change is important to them personally.

4.1.4 Social engagement on Climate Change

Scientists are the most trusted source of information about climate change among the Irish people. More than nine in ten people in Ireland (93%) say they either “strongly” (61%) or “somewhat” (32%) trust scientists as a source of information about climate change. Eight in ten people in Ireland (80%) understand that most scientists think climate change is happening.

Other highly trusted sources include the Environmental Protection Agency (88%), educators (87%), family and friends (85%), and television weather reporters (84%).

A majority report trust for community leaders (68%), the mainstream news media (68%), and journalists (68%) as sources of information about climate change. By contrast, the survey found that less than half trust political leaders (48%), corporations and businesses (37%), religious leaders (35%), or online influencers, celebrities, or media personalities (25%) as sources of information about climate change.

4.1.2 Impacts of climate change

A large majority of people in Ireland (88%) think climate change is affecting Irish weather, and (75%) think extreme weather poses either a “high” (26%) or “moderate” (49%) risk to their community over the next 10 years.

The survey found that people in Ireland are worried about local environmental hazards, indicating high levels of concern for issues of water pollution (79%), severe storms (74%), air pollution (68%), flooding (62%), rising

sea levels (61%), water shortages (55%), agricultural pests and diseases (55%), extreme heat (54%), and invasive species (54%).

Since 2021, the percentage of people in Ireland who are at least “somewhat worried” about severe storms has increased by 10 percentage points (74% vs. 64%), and the percentage who are at least “somewhat worried” about extreme heat has increased by 9 percentage points (54% vs 45%).

4.2 Climate Change Policies

4.2.1 Support for climate action policy

The survey found that Irish people support climate change policies. A large majority of Irish people (79%) say climate change should be either a “very high” or “high” priority for Government. Support for specific climate-friendly policies includes:

- Grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems: 77% “strongly support” and 19% “somewhat support”.
- Increased Government investment in public transport, such as trains, instead of motorways: 75% “strongly support” and 19% “somewhat support”.
- Government grants to make electric vehicles more affordable: 65% “strongly support”, 20% “somewhat support”.
- Banning peat, coal, and oil for home heating purposes. 25% “strongly support” and 34% “somewhat support”.
- Higher taxes on cars that use petrol and diesel: 24% “strongly support” and 27% “somewhat support”.

While still retaining majority backing, the support for prohibitive policies has weakened in 2023 compared to 2021. The overall proportion supporting bans on peat, coal and oil for home heating has decreased by 9 percentage points to 59% since 2021, and overall support for higher taxes on cars that use petrol or diesel has decreased by 13 percentage points to 51%.

Most people support spending carbon tax revenues on programmes to reduce carbon emissions and to prepare for climate change impacts. Large majorities of people in Ireland support spending revenue from the carbon tax on the following:

- Supporting the further development of new clean energy sources (95%).
- Funding improvements to Ireland’s transport infrastructure such as rail, bus corridors and cycling and walking paths (95%).
- Helping to pay for energy efficiency improvements in low-income households (95%).
- Funding programmes to help Irish communities prepare for and adapt to the impacts of climate change (91%).
- Assisting workers in the fossil fuel industry who may lose their jobs (86%).
- Returning the money to all Irish households in equal amounts (61%).

82% of Irish people support building new infrastructure such as pylons or substations in their local area to support the increased use of renewable energy, so that the Irish Government can reach its renewable electricity target of 80% by 2030.

A large majority of people (91%) support increasing forest areas to offset greenhouse gas (GHG) emissions from agriculture, while fewer (58%) support reducing the size of the national cattle herd to reduce GHG emissions from agriculture.

4.2.2 Climate change as an economic and quality of life issue

More than eight in ten people in Ireland (87%) say Ireland has a responsibility to act on climate change and should do what it can to reduce its own greenhouse emissions.

In contrast, only about one in ten (12%) say Ireland is too small to make a difference on climate change and should let other countries take the lead on reducing greenhouse gas emissions.

Irish people are positive about the economic and quality of life returns that can be achieved through a climate change response. A majority of Irish people (56%) think climate action will improve economic growth and create jobs, and about three in four (74%) say taking action to reduce climate change will improve Ireland's quality of life.



There is strong support for action across Irish society, with people saying that businesses (87%), local governments (87%), politicians (86%), government (86%), citizens (85%), themselves personally (72%), the media (71%) and the Environmental Protection Agency (69%) should all be doing more to address climate change.

4.2.3 Cost of living and outlook on climate action

Attitudes of Irish people towards climate action policy have held firm despite cost-of-living increases since 2021.

Those who reported “any difficulty” making ends meet in the last 12 months (38% of the Irish public) expressed the same levels of worry and feelings of personal importance about climate change as those who experienced “no difficulty” making ends meet (54% of the Irish public). There was also no difference in outlook on the potential economic and quality of life benefits from climate action between those reporting difficulties making ends meet and those reporting no difficulties.

Considering public support for climate action policy, both those experiencing “any difficulty” making ends meet in the last 12 months and those experiencing “no difficulty” expressed the same levels of support for most policies explored in the ‘Climate Change in the Irish Mind’ study. The exceptions were policies on “higher taxes on cars that use petrol or diesel”, and on “banning peat, coal, and oil for home heating” where there was weaker support from those who had experienced difficulties making ends meet.

4.3 Climate Change Behaviours

4.3.1 Climate-related behaviour

About half of people in Ireland say they have made a purchase from a company that is taking action to reduce climate change in the past year, including 5% who say they have done so “many times”. Additionally, 47% say they intend to increase their consumer activism in the next year.

Four in ten people in Ireland say they have punished companies that are opposing steps to reduce climate change by not buying their products one or more times in the last 12 months, including 4% who say they have done so “many times”.

More than one in three (37%) have chosen to not eat meat for environmental reasons in the past year.

4.4 Climate Literacy

4.4.1 Climate change knowledge

A large majority of the Irish population have at least heard of climate change topics such as the “greenhouse effect” (96%), however only a very small percentage (5%) could distinguish the greenhouse effect from other environmental topics such as acid rain, or the ozone layer.

There is a moderate level of recognition that carbon dioxide and methane trap heat in the atmosphere, but much less certainty about the effects of water vapour, hydrogen, and oxygen.

4.4.2 Understanding of climate change

When it comes to understanding the effects of behaviours on the carbon footprint of an average person, a majority of Irish people correctly identified that avoiding long distance flights and switching to renewable energy sources would have a large impact on carbon footprint.

The carbon footprint effects of highly visible but less impactful behaviours such as switching to energy efficient lighting and using reusable shopping bags were overestimated by a large majority. The moderate carbon footprint impact of eating less meat, or a large impact of eating a plant-based diet were underestimated by a large majority.





Almost four in five people in Ireland (78%) say they know at least a moderate amount about climate change

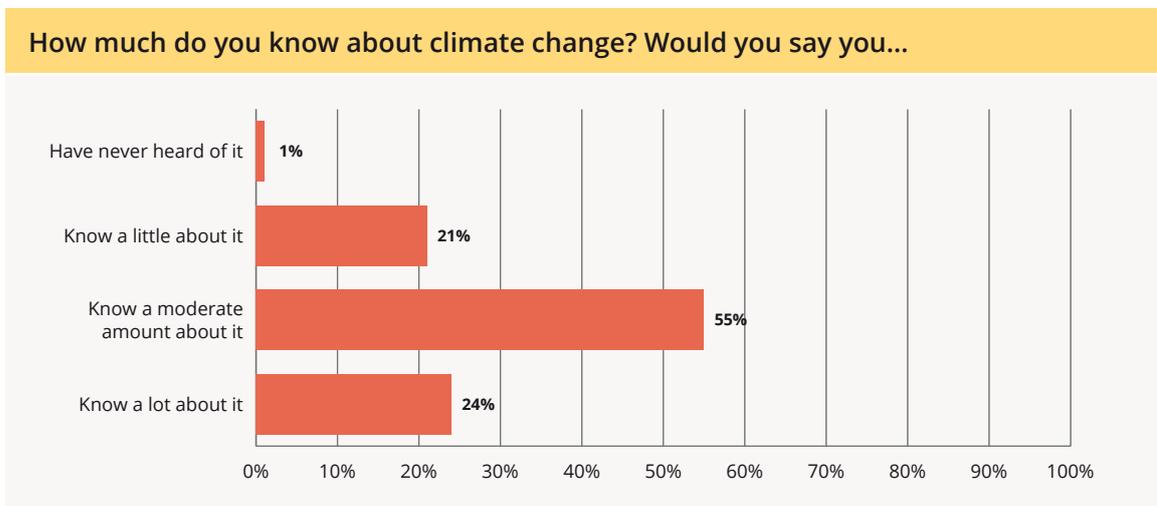
I. Climate Change Beliefs and Attitudes

1 Climate Change Beliefs

1.1 Most people in Ireland say they know at least a moderate amount about climate change.

Almost four in five people in Ireland (78%) say they know at least a moderate amount about climate change, including about one in four (24%) who say they know “a lot” about it.

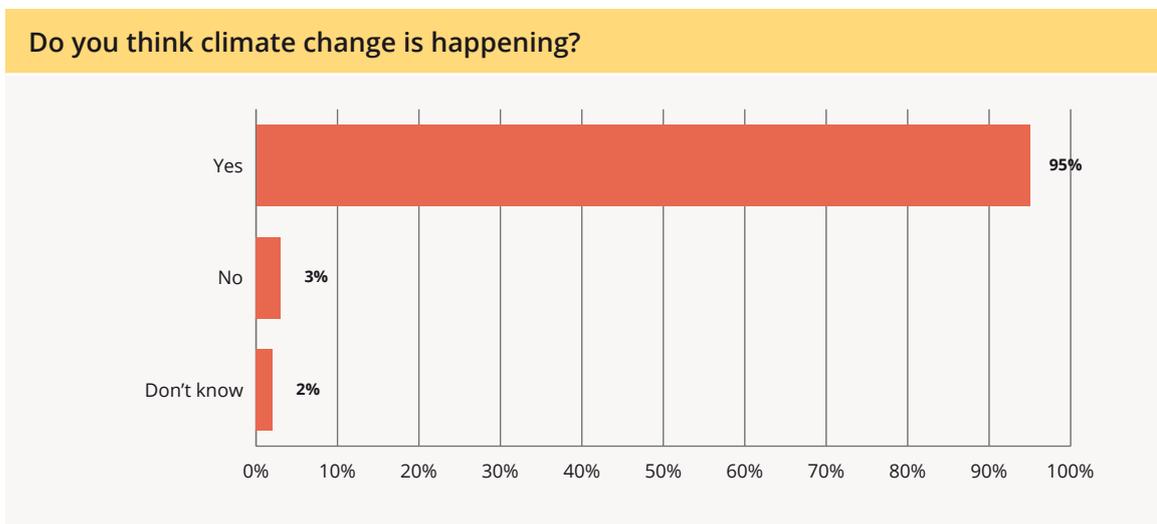
Only about one in five people in Ireland (21%) say they know only “a little” about climate change, and almost none (1%) say they have “never heard” of climate change.



1.2 Nearly all people in Ireland think climate change is happening.

Nearly all people in Ireland (95%) think climate change is happening. This includes 79% of people in Ireland who are either “extremely sure” (40%), or “very sure” (38%) climate change is happening.

By contrast, only 3% of residents think climate change is not happening (and only 1% are either “extremely” or “very” sure it is not happening). Additionally, only 2% say they “don’t know” if climate change is happening.

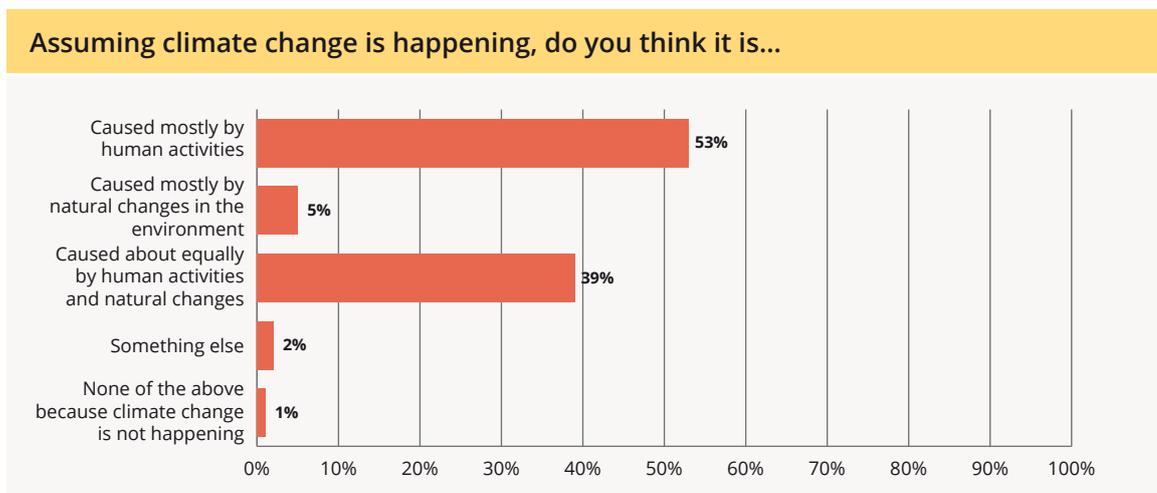


1.3 A majority of people in Ireland think climate change is mostly human caused.

The Intergovernmental Panel on Climate Change's Synthesis report for policy makers (IPCC, 2023)³, which summarises contributions from thousands of climate experts worldwide, states in its opening section: "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming".

A majority of people in Ireland (53%) say that climate change is mostly human caused, while about four in ten (39%) say it is caused about equally by human activities and natural changes.

By contrast, few (5%) think climate change is due mostly to natural changes in the environment or other causes (2%).



1.4 Only 30% of people in Ireland correctly identified agriculture as the largest source of the pollution that causes climate change in Ireland.

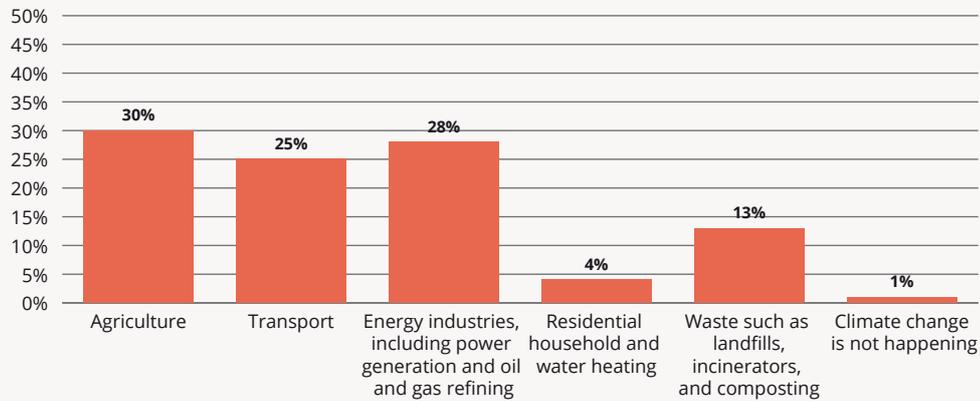
Environmental Protection Agency greenhouse gas inventory data for 2022⁴ shows that the agricultural sector was the largest producer of greenhouse gas emissions in Ireland, followed by the transport, energy (including fossil fuel industries) and residential sectors. Other sectors, such as waste, comprise only a small amount of the total greenhouse gas emissions in Ireland.

Only 30% of people in Ireland correctly identified agriculture as Ireland's largest source of the pollution that causes climate change. Many people in Ireland identified other producers of greenhouse gas emissions as the largest producer, including transport (25%), energy industries (28%) the waste sector (13%) and the residential sector (4%).

3 Intergovernmental Panel on Climate Change. (2023): Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee, and J. Romero (eds.)]. IPCC, Geneva, Switzerland. https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.

4 <https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/latest-emissions-data/>

To the best of your knowledge, which one of the following sectors is Ireland's largest source of the pollution that causes climate change?



1.5 About eight in ten people in Ireland understand that most scientists think climate change is happening.

The Intergovernmental Panel on Climate Change's Synthesis Report (2023)⁵ is a summary of the main IPCC findings and is endorsed by thousands of climate scientists worldwide. The report outlines that the scientific consensus on the causes and effects of climate change is extremely strong and presents clear and unarguable evidence that humans are the cause of climate change through greenhouse gas emissions.

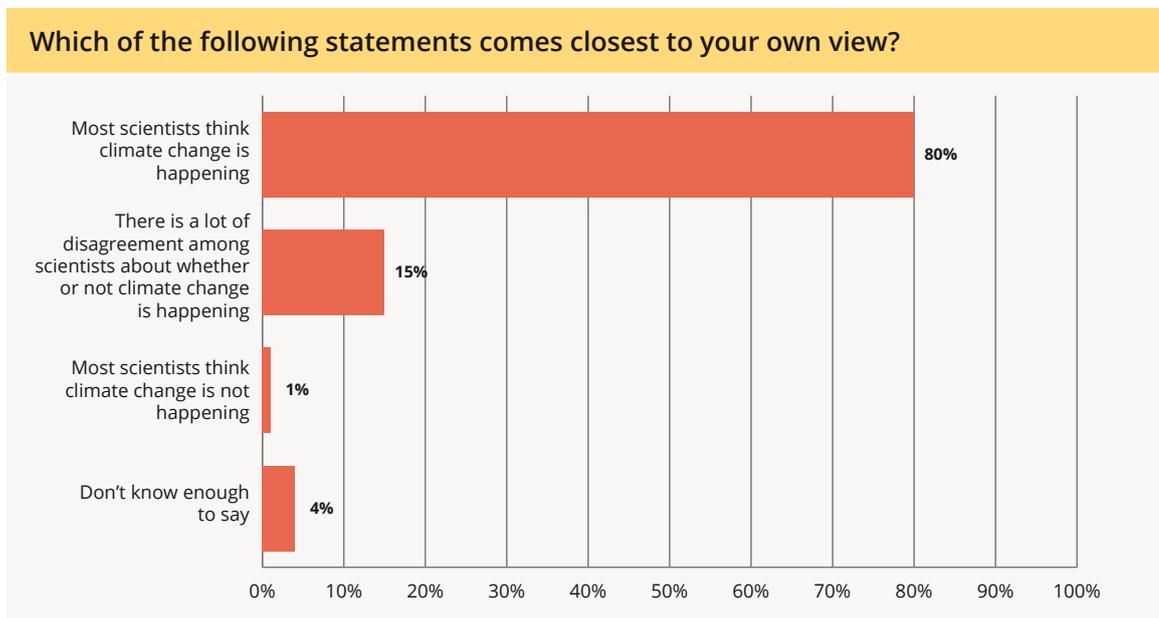
Similarly, a review by John Cook and colleagues⁶ found that six independent, peer-reviewed studies examining the extent of the scientific consensus about climate change have concluded that between 90% and 100% of climate scientists are convinced that human-caused climate change is happening. The most rigorous of these studies found that 97% of climate scientists are convinced that climate change is happening, and human caused.

Eight in ten people in Ireland (80%) say that most scientists think climate change is happening.

By contrast, only 15% say that there is a lot of disagreement among scientists about whether or not climate change is happening. Very few (1%) say that most scientists think climate change is not happening.

5 Intergovernmental Panel on Climate Change. (2023): Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee, and J. Romero (eds.)]. IPCC, Geneva, Switzerland. https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.

6 Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. I., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewandowsky, S., Skuce, A. G., Green, S. A., Nuccitelli, D., Jacobs, P., Richardson, M., Winkler, B., Painting, R., & Rice, K. (2016). Consensus on consensus: A synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters*, 11(4). doi:10.1088/1748-9326/11/4/048002.



2 Emotional Responses to Climate Change

2.1 A large majority of people in Ireland are worried about climate change.

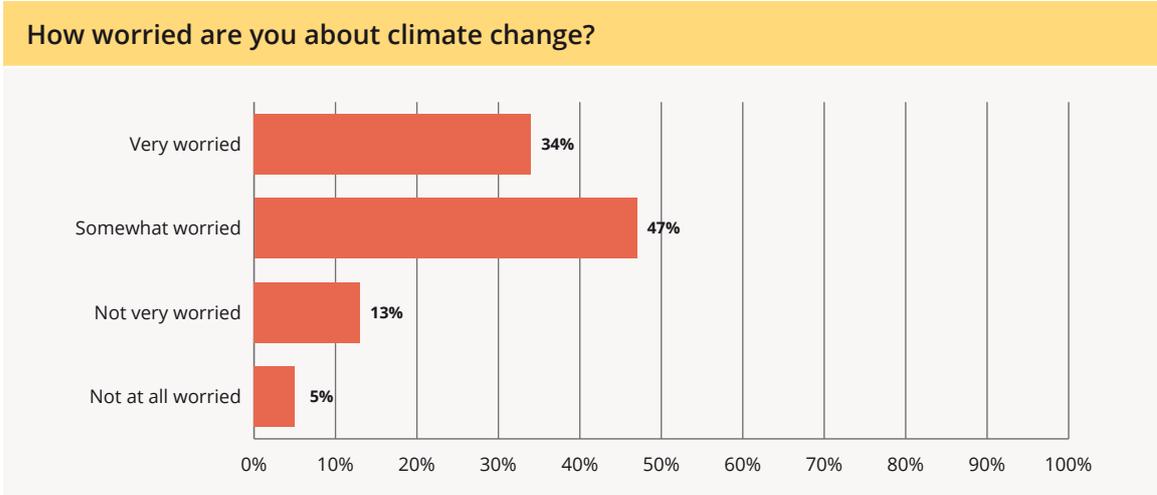
About eight in ten people in Ireland (81%) say they are at least “somewhat worried” about climate change, including about one in three (34%) who say they are “very worried”.

In contrast, only 19% of people in Ireland say they are either “not very worried” (13%) or “not at all worried” (5%) about climate change.

Participants were also asked about their household’s self-reported difficulty or ease in making ends meet in the past 12 months⁷ and were classified as those who had experienced “any difficulty” making ends meet (i.e., “with great difficulty,” “with difficulty,” or “with some difficulty;” 38%) or “no difficulty” (i.e., “fairly easily,” “easily;” or “very easily;” 54%), with an additional 8.5% who preferred not to answer this question.

There was no difference in the level of worry about climate change expressed by those who experienced “any difficulties” in the last 12 months compared to those who experienced “no difficulties”.

⁷ Residents were read the following text for this question: Concerning your household’s total monthly or weekly income over the last 12 months, with which degree of ease or difficulty is the household able to make ends meet? Answers ranged from Very Easily to With great Difficulty. This question is derived from Question G8 in the Growing up in Ireland study, Cohort ‘98 Wave 4 Parent questionnaire: https://www.growingup.gov.ie/pubs/Cohort-98-at-20Yrs_Parent-Main-Questionnaire-1.pdf

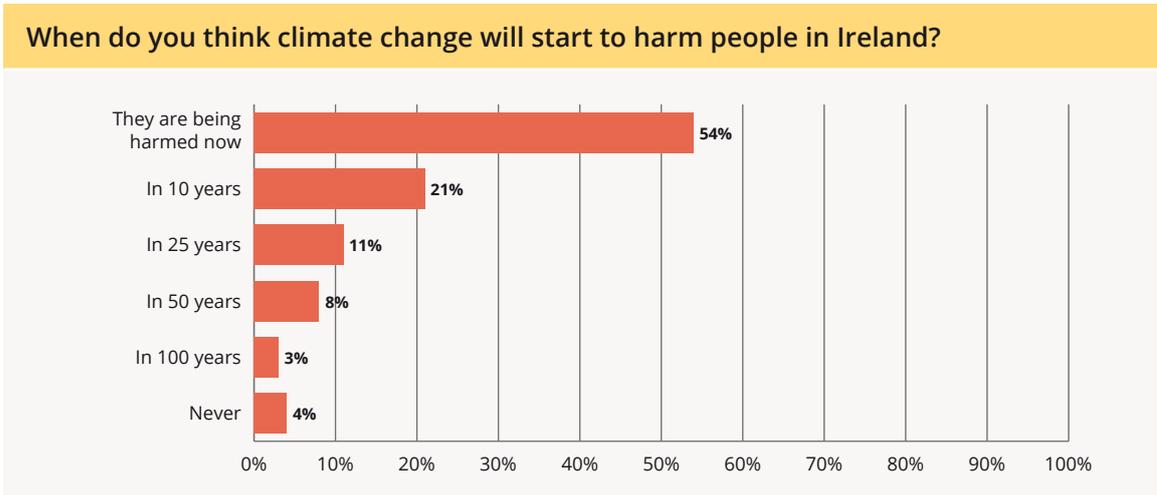


3 Perceived Risks of Climate Change

3.1 More than half of people in Ireland think people in Ireland are being harmed “right now” by climate change.

More than half of residents (54%) think people in Ireland are being harmed “right now” by climate change.

In contrast, few residents think that climate change will “never” harm people in Ireland (4%) or will only harm them in the distant future (“in 50 years” 8%; “in 100 years” 3%).

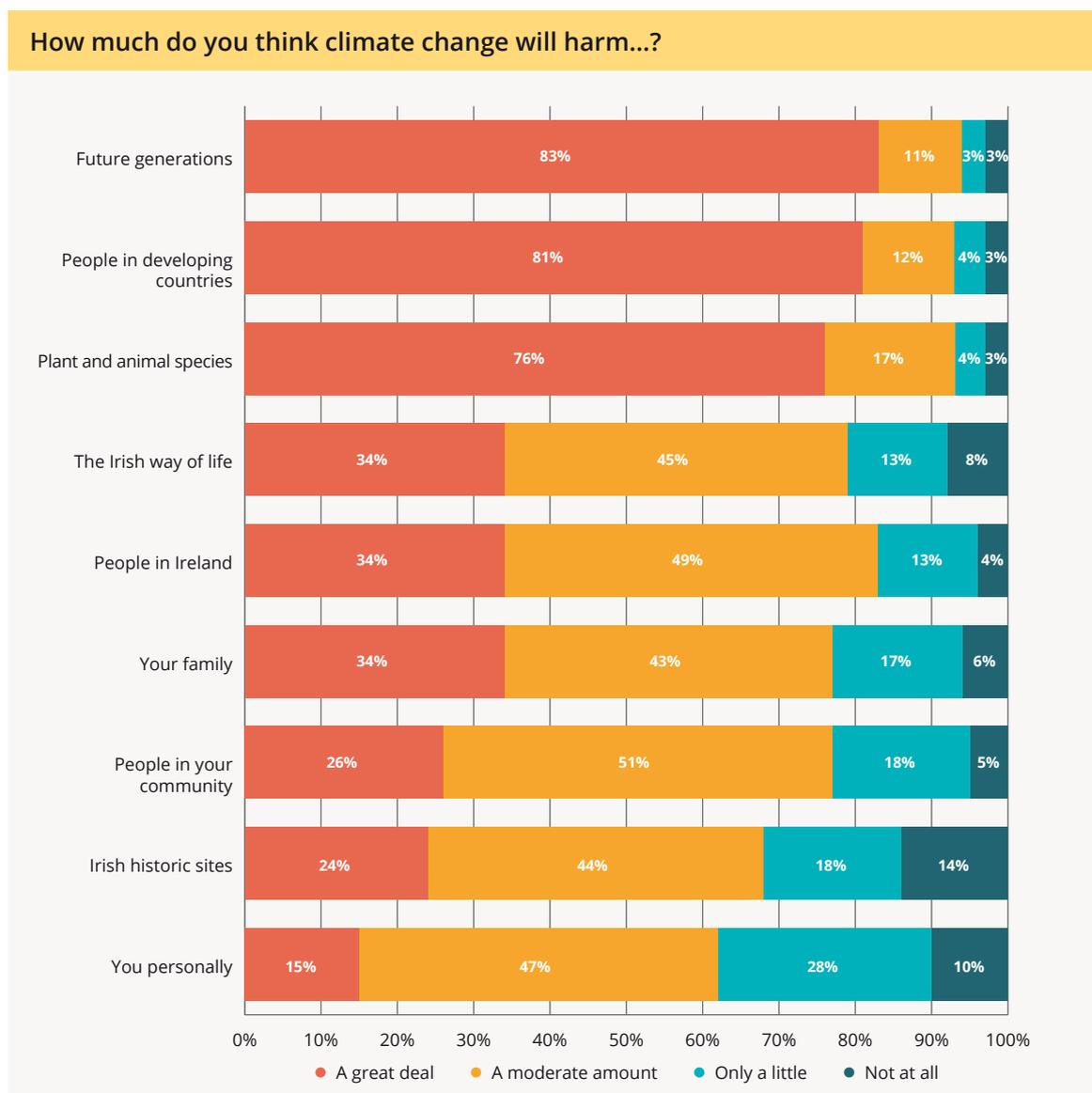


3.2 Many people in Ireland think they will be harmed by climate change but think others will be harmed more.

Many people in Ireland understand that climate change will cause harm. Residents are most likely to think that future generations of people (95%), people in developing countries (93%), and plant and animal species (92%) will be harmed “a great deal” or “a moderate amount” by climate change. More than three in four think that each of these groups will be harmed “a great deal”.

About eight in ten think people in Ireland (83%) will be harmed, and seven in ten or more think the Irish way of life (79%), their family (77%), and people in their community (77%) will be harmed. Two in three think Irish historic sites (68%) will be harmed.

About six in ten people in Ireland think they themselves will be harmed by climate change (63%); however, only 15% think climate change will harm them “a great deal”.

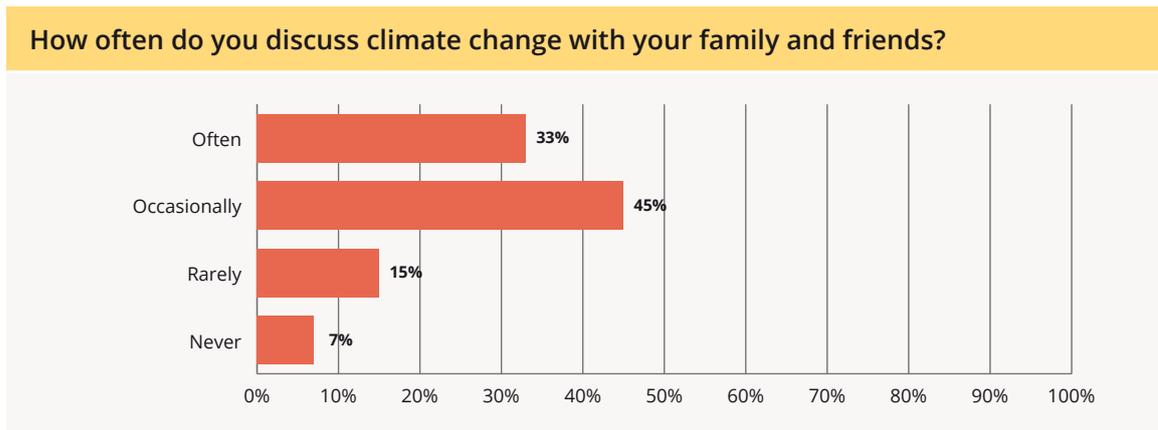


4 Personal and Social Engagement with Climate Change

4.1 Most people in Ireland “often” or “occasionally” discuss climate change with family and friends.

About eight in ten people in Ireland (78%) say they either “often” (33%) or “occasionally” (45%) discuss climate change with family and friends.

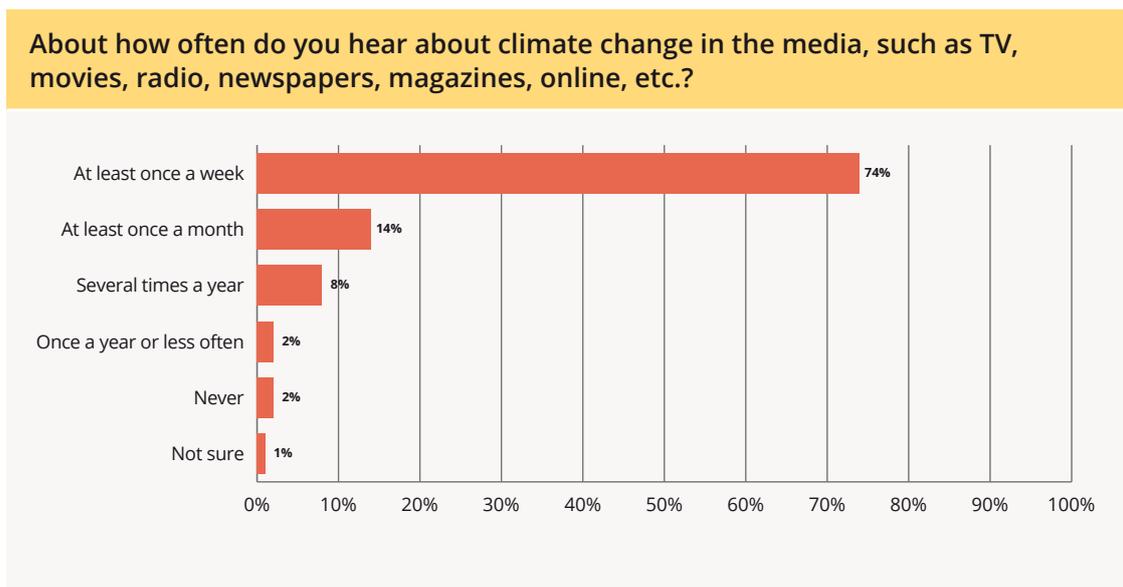
Only about two in ten (22%) say they either “rarely” (15%) or “never” (7%) discuss climate change.



4.2 Most people in Ireland hear about climate change in the media at least once a week.

About three-quarters of people in Ireland (74%) say they hear about climate change in the media once a week or more often, and an additional 14% say they hear about climate change in the media at least once a month.

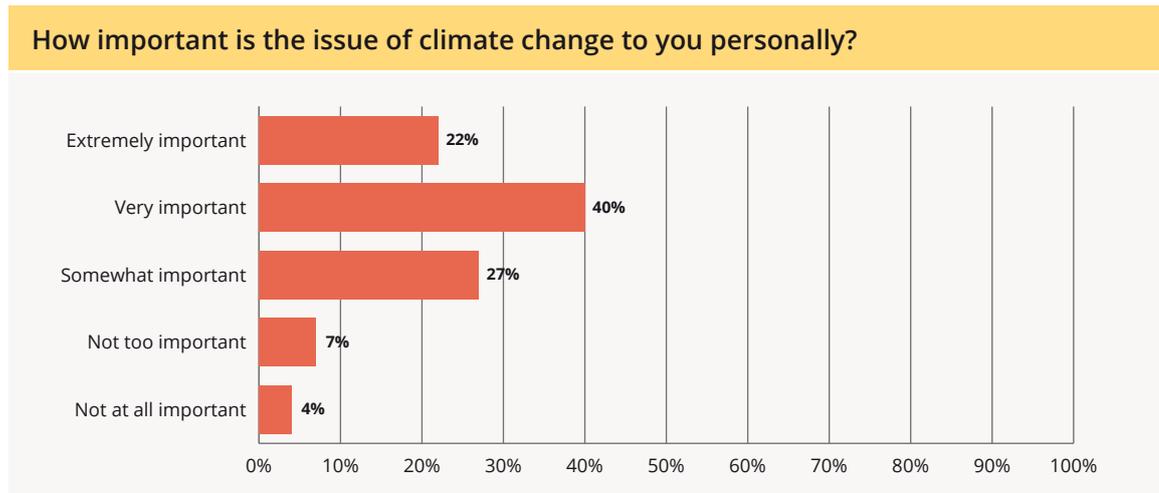
One in ten residents (10%) say they hear about climate change in the media only several times a year or less often. Only 2% say they never hear about climate change in the media.



4.3 Nine in ten people in Ireland say the issue of climate change is personally important.

About nine in ten people in Ireland (89%) say the issue of climate change is either “extremely” (22%), “very” (40%), or “somewhat” (27%) important to them personally. About one in ten (11%) say climate change is either “not too” (7%) or “not at all” (4%) personally important.

There was no difference in the ratings of personal importance between those who experienced “any difficulties” making ends meet in the last 12 months compared to those who experienced “no difficulties” making ends meet⁸.



4.4 Most people in Ireland strongly trust scientists as a source of information about climate change.

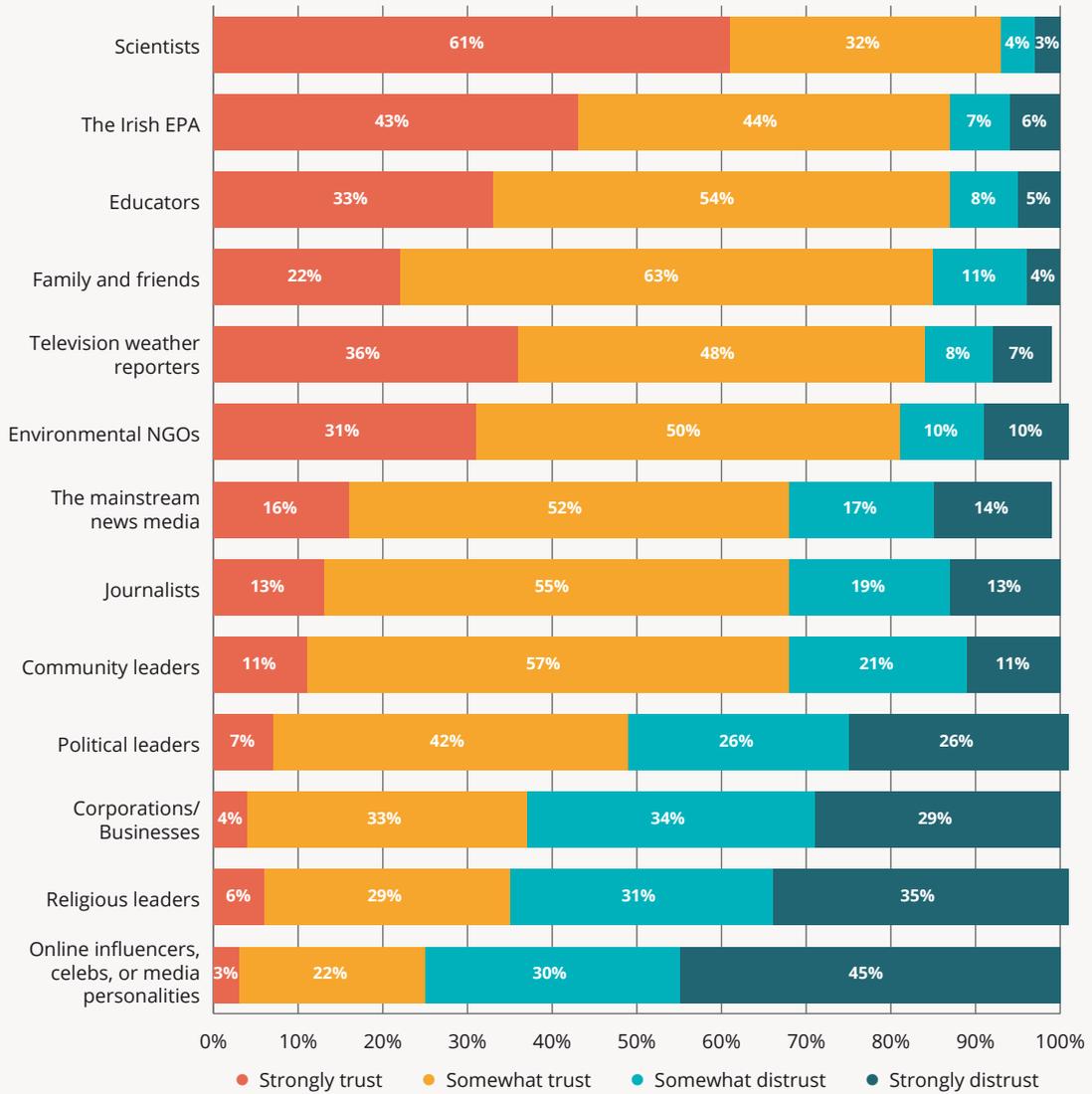
More than nine in ten people in Ireland (93%) say they either “strongly” (61%) or “somewhat” (32%) trust scientists as a source of information about climate change.

Eight in ten or more residents say they either “strongly” or “somewhat” trust the Environmental Protection Agency (88%), educators (87%), family and friends (85%), and television weather reporters (84%) as sources of information about climate change.

Most residents also say they trust community leaders (68%), the mainstream news media (68%) and journalists (68%). About half of residents or fewer say they trust political leaders (48%), corporations and businesses (37%), religious leaders (35%), or online influencers, celebrities, or media personalities (25%).

8 See section 7.1 for a description of the question on the ease or difficulty of making ends meet in the last 12 months.

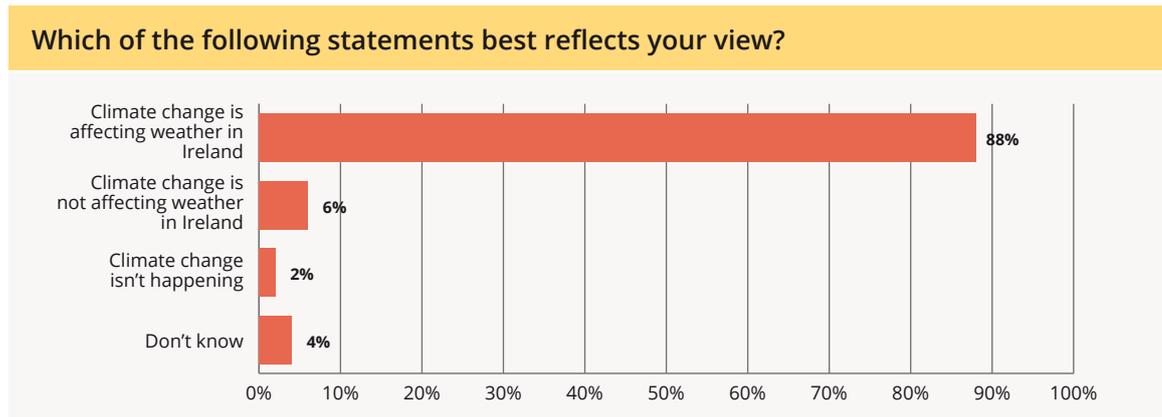
How much do you trust or distrust the following as a source of information about climate change?



5 Impacts of Climate Change

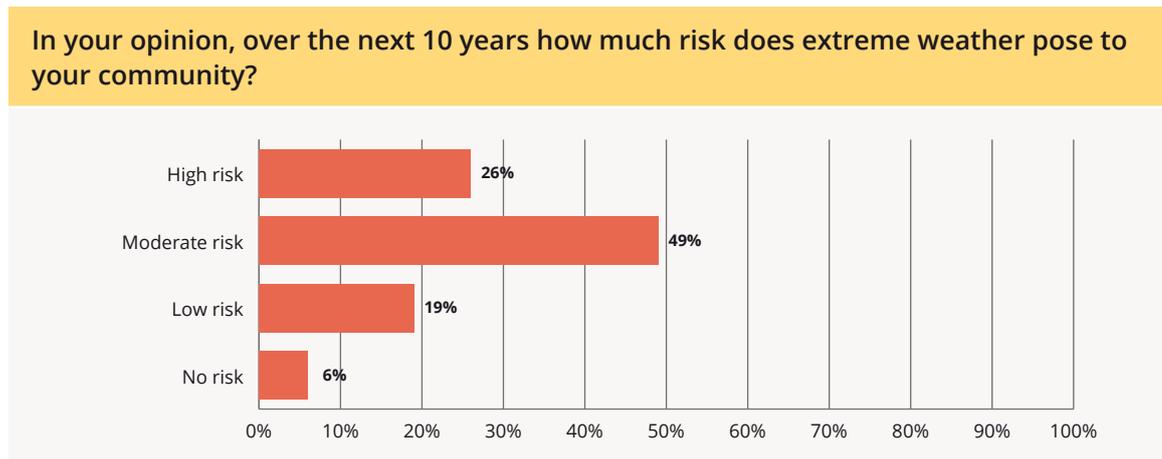
5.1 A large majority of people in Ireland think climate change is affecting Irish weather.

Nearly nine in ten people in Ireland (88%) say climate change is affecting weather in Ireland. Few (6%) say climate change is not affecting weather in Ireland, say climate change is not happening (2%) or don't know if it is affecting the weather in Ireland (4%).



5.2 Three in four people in Ireland think extreme weather poses a risk to their community.

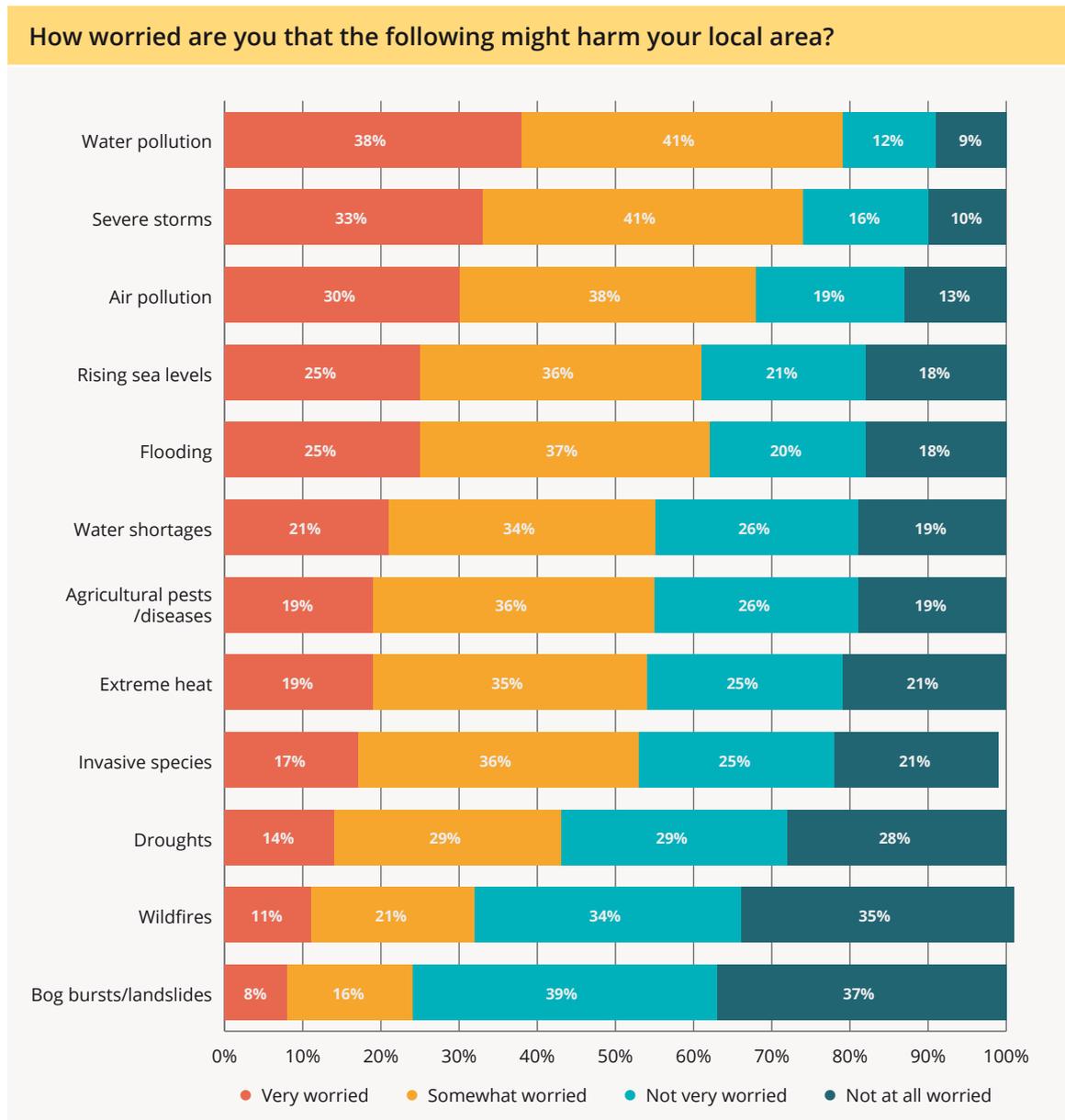
Three in four people in Ireland (75%) think extreme weather poses either a “high” (26%) or “moderate” (49%) risk to their community over the next 10 years. Fewer think extreme weather poses either a “low” risk (19%) or “no” risk (6%).



5.3 A majority of people in Ireland are worried about harm from environmental hazards in their local area.

A majority of people in Ireland are at least “somewhat worried” about environmental hazards in their local areas, including water pollution (79%), severe storms (74%), air pollution (68%), flooding (62%), rising sea levels (61%), water shortages (55%), agricultural pests and diseases (55%), extreme heat (54%), and invasive species (54%).

Fewer are worried about droughts (43%), wildfires (32%) or bog bursts or landslides (24%).





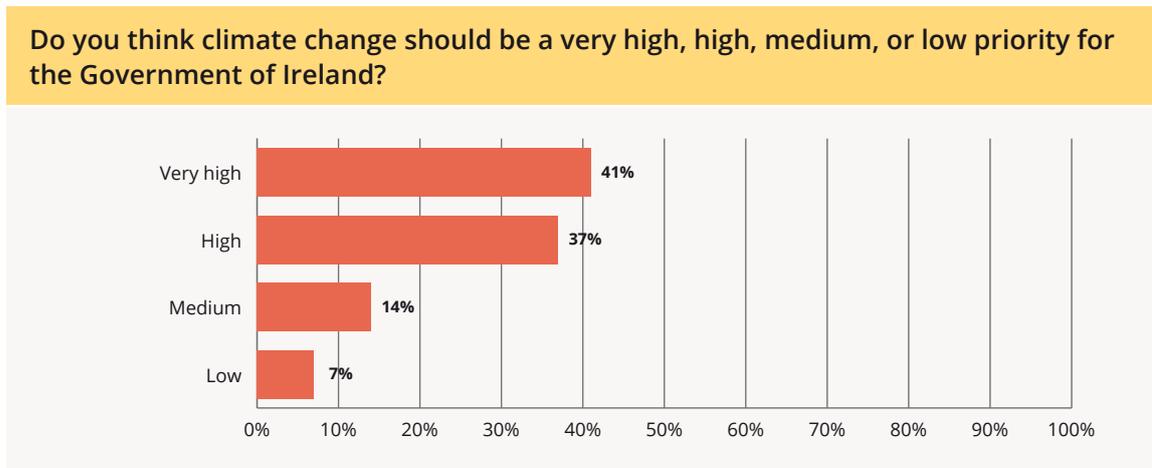
More than three in four people in Ireland (79%) say climate change should be either a “very high” or “high” priority for the Government

II. Climate Policies

6 Climate Change as a Government Priority

6.1 Most people in Ireland say climate change should be a priority for the Government of Ireland.

More than three in four people in Ireland (79%) say climate change should be either a “very high” (41%) or “high” (37%) priority for the Government of Ireland. Few (7%) say climate change should be a “low” priority.



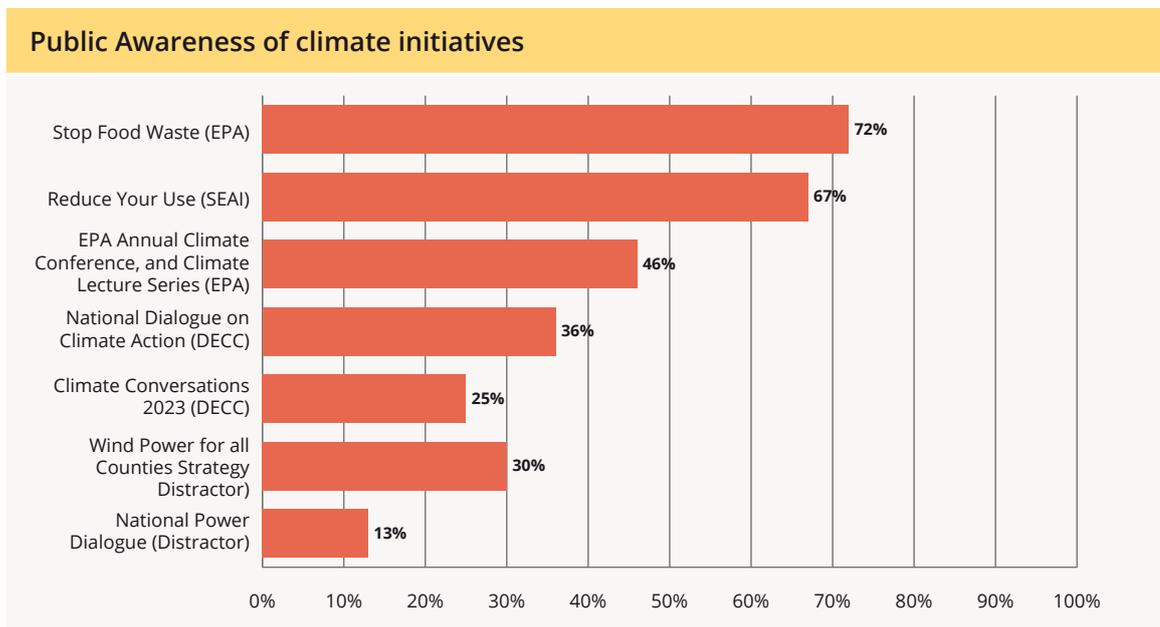
6.2 Public awareness of climate initiatives

Respondents were asked if they had previously heard of a number of climate action initiatives, campaigns, or projects⁹ including two from the Department of the Environment Climate and Communications (DECC), two from the Environmental Protection Agency (EPA), and one from the Sustainable Energy Authority of Ireland (SEAI).¹⁰ Each campaign had been in progress for at least a year at the point of fieldwork and had reached widely across Ireland using both traditional and social media.



9 Have you heard of any of the following national climate action initiatives (Order of items randomised), Climate Conversations 2023, National Dialogue on Climate Action, EPA Annual Climate Conference and Climate Lecture Series, “Stop Food Waste” campaign, “Reduce Your Use” campaign, National Power Dialogue (Distractor), Wind Power for all Counties Strategy (Distractor).

10 As is typical of this type of question, two plausible but fake distractor items were added to the list to explore any bias in answer style. 13% of residents indicated that they had heard of the distractor “National Power Dialogue” and separately, 30% indicated that they had heard of the “Wind Power for All Counties Strategy”.



Two campaigns aimed at consumers, businesses and the public sector are the most well-known with about seven in ten respondents having heard about the “Stop Food Waste¹¹” (72%) and the “Reduce Your Use¹²” (67%) campaigns.

Other national initiatives are less well known, with 46% reporting that they have heard of the EPA’s Annual Climate Conference and Climate lecture series, 36% having heard of the National Dialogue on Climate Action (NDCA), and 25% having heard of Climate Conversations, which is one of the main NDCA outputs. These latter Government initiatives were identified at close to the same level as plausible distractors.¹³

11 <https://stopfoodwaste.ie/>

12 <https://www.seai.ie/reduceyouruse/>

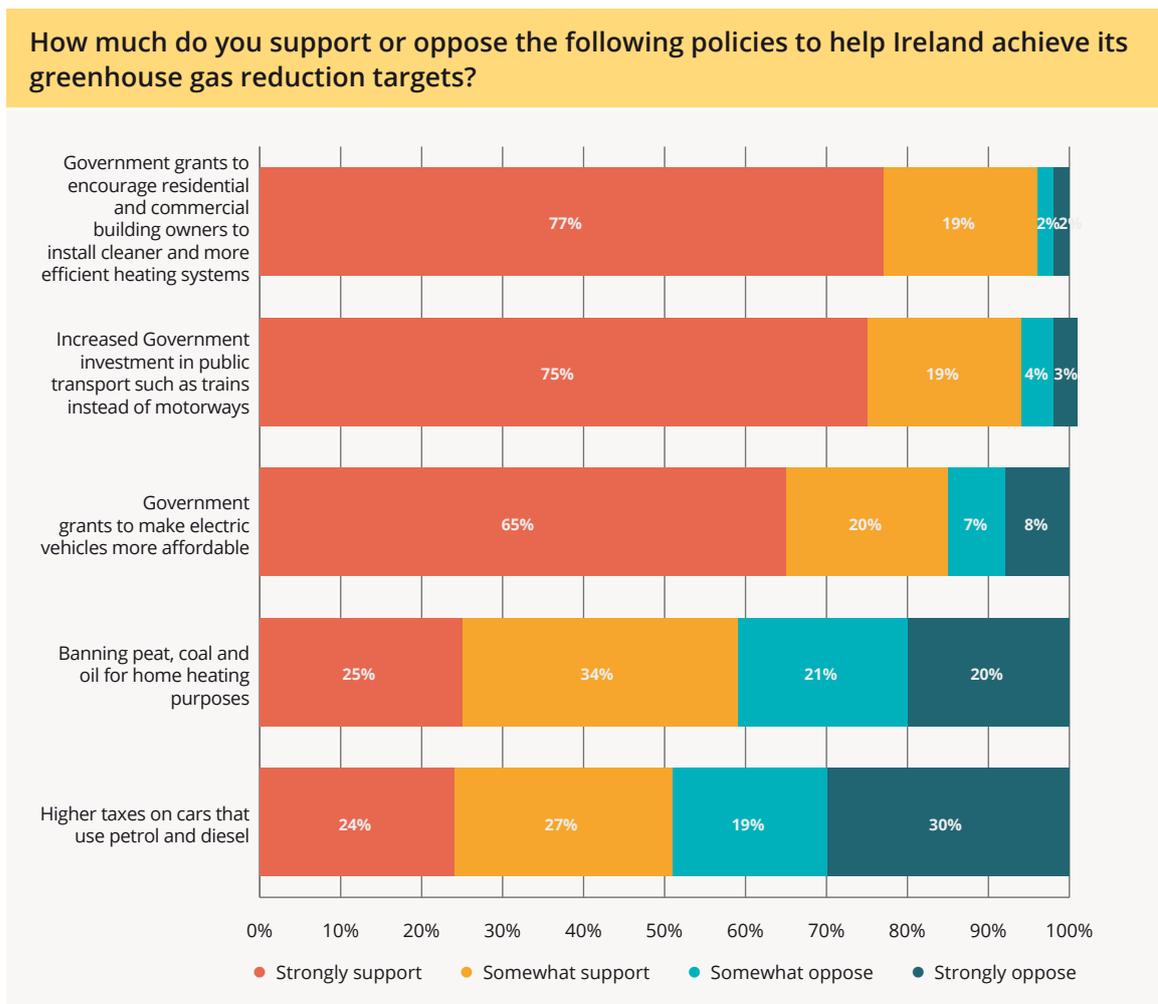
13 Adjusting answers for those who said they had heard about the distractor items, a more conservative estimate is reached of 44% of Irish people knowing about “Reduce Your Use”, 41% knowing about “Stop Food Waste”, 26% knowing about the “EPA climate conference”, 19% knowing about the NDCA, and 13% knowing about “Climate conversations”.

7. Support for Policies to Reduce Greenhouse Gases

7.1 Most people in Ireland support climate-friendly energy policies.

People in Ireland support many policies designed to help Ireland reach its greenhouse gas emissions targets, including the following:

- Government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems: 77% “strongly support” and 19% “somewhat support”.
- Increased Government investment in public transport such as trains instead of motorways: 75% “strongly support” and 19% “somewhat support”.
- Government grants to make electric vehicles more affordable: 65% “strongly support” and 20% “somewhat support”.
- Banning peat, coal, and oil for home heating purposes: 25% “strongly support” and 34% “somewhat support”.
- Higher taxes on cars that use petrol and diesel: 24% “strongly support” and 27% “somewhat support”.



7.2 Most people in Ireland favour spending carbon tax revenues on programmes to reduce carbon emissions and prepare for climate change impacts.

In 2010, Ireland instituted a carbon tax on kerosene, marked gas oil, liquid petroleum gas, fuel oil and natural gas not used for electricity. On the 1st of May 2021, this tax was increased by €7.50 per tonne.¹⁴ Further increases of €7.50 per tonne were added on the 12th of October 2022 for transport fuels, and the 1st of May 2023 for home heating fuels.¹⁵

Nine in ten or more people in Ireland say they “strongly” or “somewhat” support spending revenue from the carbon tax¹⁶ on supporting the further development of new clean energy sources such as marine and hydrogen power (95%), funding improvements to Ireland’s transport infrastructure such as rail, bus corridors, and cycling and walking paths (95%), helping pay for energy efficiency improvements in low-income households (95%), funding programmes to help Irish communities prepare for and adapt to the impacts of climate change (91%) and assisting workers in the fossil fuel industry who may lose their jobs (86%). About six in ten residents say they support returning the money to all Irish households in equal amounts (61%).

14 <http://budget.gov.ie/Budgets/2021/Documents/Budget/Carbon%20tax%20document.pdf>

15 <https://www.citizensinformation.ie/en/money-and-tax/budgets/budget-2023/#7fc5fe>

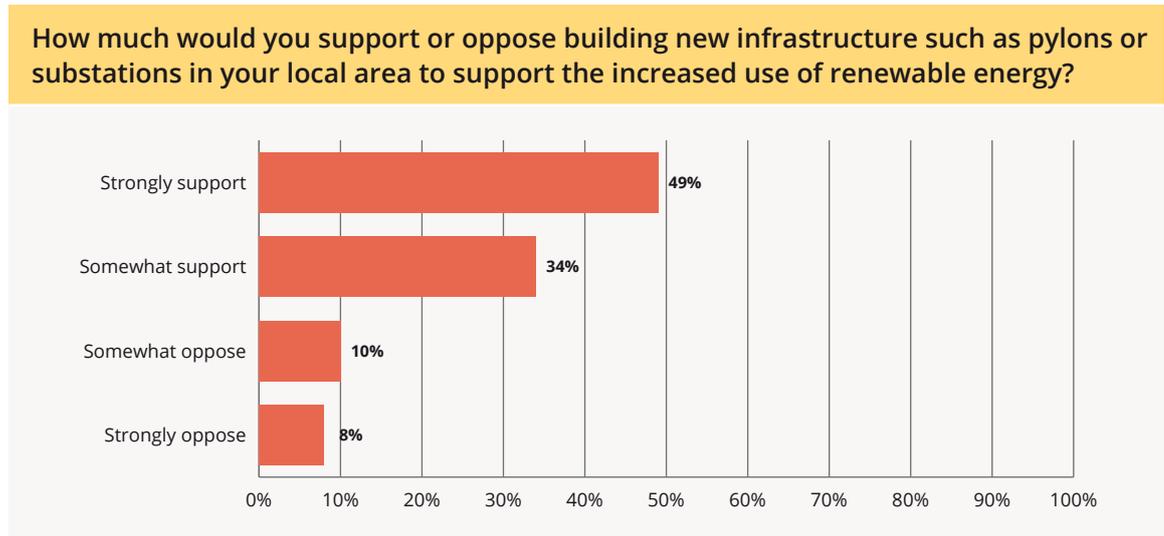
16 Residents were read the following text for these questions: “To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?”

To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?



7.3 Most people in Ireland support development of renewable energy infrastructure.

A large majority of people in Ireland (82%) say they support building new infrastructure such as pylons or substations in their local area to support the increased use of renewable energy so that the Irish Government can reach its renewable electricity target of 70% by 2030.¹⁷



7.4 A large majority of people in Ireland support increasing local forest areas to offset greenhouse gas emissions from agriculture. Fewer support reducing the size of the national cattle herd.

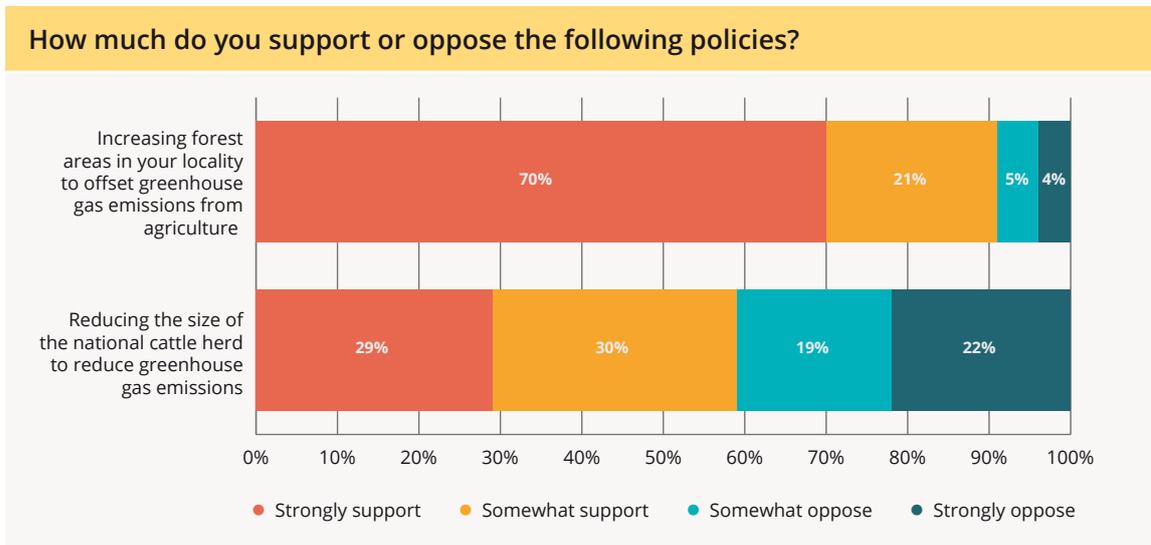
About nine in ten people in Ireland (91%) say they “strongly” or “somewhat” support increasing forest areas in their locality to offset greenhouse gas emissions from agriculture, including seven in ten (70%) who say they “strongly” support this action.

A majority (58%) also say they “strongly” or “somewhat” support reducing the size of the national cattle herd to reduce greenhouse gas emissions from agriculture, including 29% who say they “strongly” support it.

About four in ten residents (42%) say they oppose reducing the size of the national cattle herd, including 22% who say they “strongly” oppose it.¹⁸

17 Residents were read the following text for this question:
“The Irish Government has set a renewable electricity target of 70% by 2030. New infrastructure such as pylons and substations are needed to meet this target. How much would you support or oppose building new infrastructure such as pylons or substations in your local area to support the increased use of renewable energy?”

18 Residents were read the following text for these questions:
“Agriculture is an important industry for Ireland and its rural economy. Agriculture is also a major source of greenhouse gas emissions, and now accounts for over one-third of Ireland’s total emissions. With this in mind, how much do you support or oppose the following policies?”



7.5 Irish people support most climate action policies despite cost of living increases since 2021.

The levels of support for climate action policy descriptions were compared between those who reported “any difficulty” making ends meet in the last 12 months (38% of the Irish public) and those who reported “no difficulties” (54% of the Irish public)¹⁹.

No differences were found in the levels of support reported by the “any difficulty” and “no difficulty” groups for the following policies²⁰:

- Building new infrastructure such as pylons or substations in your local area to support the increased use of renewable energy.
- Grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems.
- Government grants to make electric vehicles more affordable.
- Increased Government investment in public transport such as trains instead of motorways.
- Reducing the size of the national cattle herd to reduce greenhouse gas emissions.
- Increasing forest areas in your locality to offset greenhouse gas emissions from agriculture.

19 See section 7.1 for a description of the question on ease or difficulty in making ends meet.

20 A series of Chi-Square tests were used to explore the policy items for statistically significant differences.

However, differences in the levels of support between those who reported “any difficulty” making ends meet in the last 12 months and those who reported “no difficulty” were observed for the following policies:

- Higher taxes on cars that use petrol and diesel.
- Banning peat, coal and oil for home heating.

7.5.1 Higher taxes on cars that use petrol and diesel.

On the policy of higher taxes on cars that use petrol and diesel, a smaller proportion of the “any difficulty” making ends meet group gave *strong support* to the policy (19% vs 28%) than the “no difficulty” group.

An apparent overall difference in majority support for the policy between the “any difficulty” (51% oppose) and the “no difficulty” groups (52% support) was weak and not statistically significant.

7.5.2 Banning peat, coal, and oil for home heating

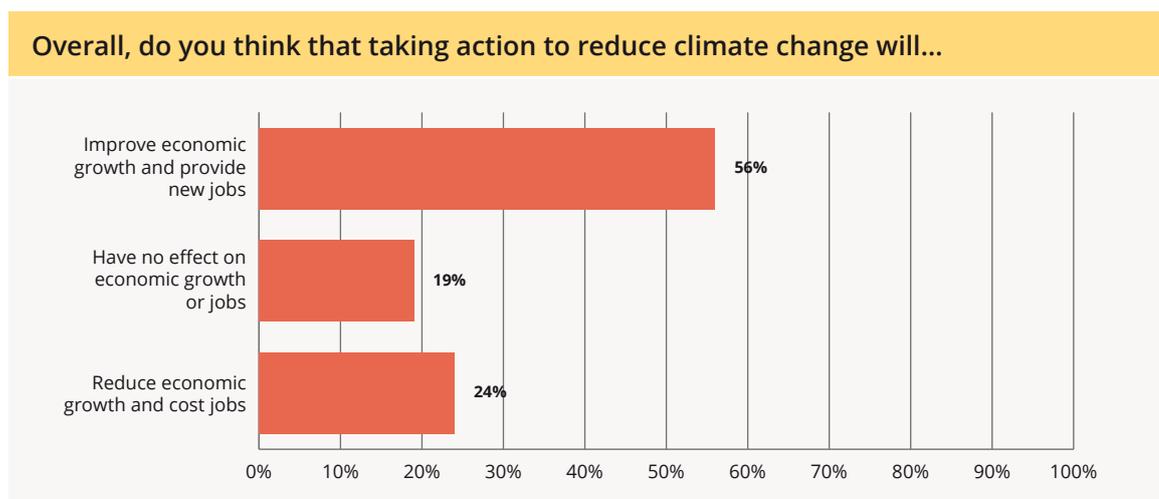
Similarly, on the policy of banning peat, coal, and oil for home heating, a smaller proportion of the “any difficulty” group gave strong support to the policy compared to the “no difficulties” group (21% vs 27% *strongly supporting*). There was also stronger opposition to the policy in the “any difficulty” group compared to the “no difficulty” group (24% vs 18% *strongly opposing*).

Overall, there was still majority support for banning peat, coal, and oil for home heating in “any difficulty” and “no difficulty” groups. However majority support was weaker in the “any difficulties” group than in the “no difficulties” group (53% vs 63% supporting overall).

8. Climate Change as an Economic and Quality of Life Issue

8.1 A majority of people in Ireland think taking action to reduce climate change will improve economic growth and create jobs.

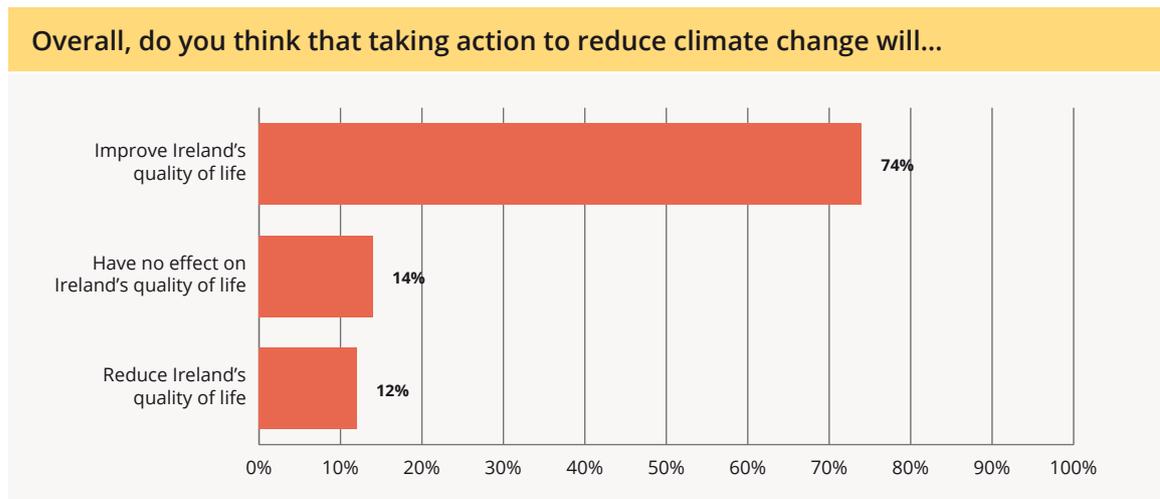
A majority of people in Ireland (56%) think taking action to reduce climate change will improve economic growth and create jobs, while only about one quarter (24%) think it will have the opposite effect, reducing growth and costing jobs, and an additional 19% think it will have no impact either way.



8.2 Most people in Ireland say taking action to reduce climate change will improve Ireland’s quality of life.

About three in four people in Ireland (74%) say taking action to reduce climate change will improve Ireland’s quality of life, while only about one in ten (12%) say it will reduce Ireland’s quality of life, and an additional 14% say it will not impact Ireland’s quality of life either way.

There was no difference in how those experiencing “any difficulty” making ends meet in the last 12 months²¹ and those who were experiencing “no difficulty” answered questions on the effect of climate action on economic outlook or on climate action, and quality of life.



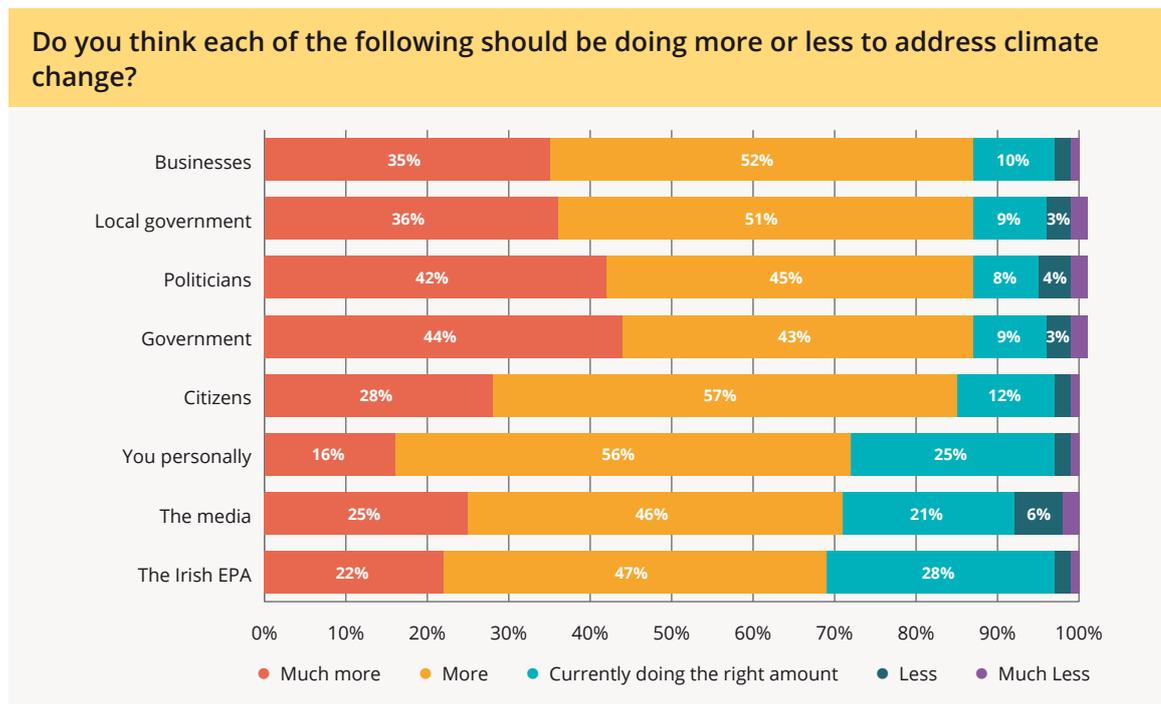
21 See section 7.1 for a description of the question on ease or difficulty of making ends meet in the last 12 months.

9. Who is Responsible for Action on Climate Change?

9.1 People in Ireland want more action on climate change from many parts of Irish society.

More than eight in ten people in Ireland say businesses (87%), local governments (87%), politicians (86%), Government (86%), and citizens (85%) should be doing “much more” or “more” to address climate change.

About seven in ten say they personally (72%), the media (71%) and the Environmental Protection Agency (69%) should be doing more.



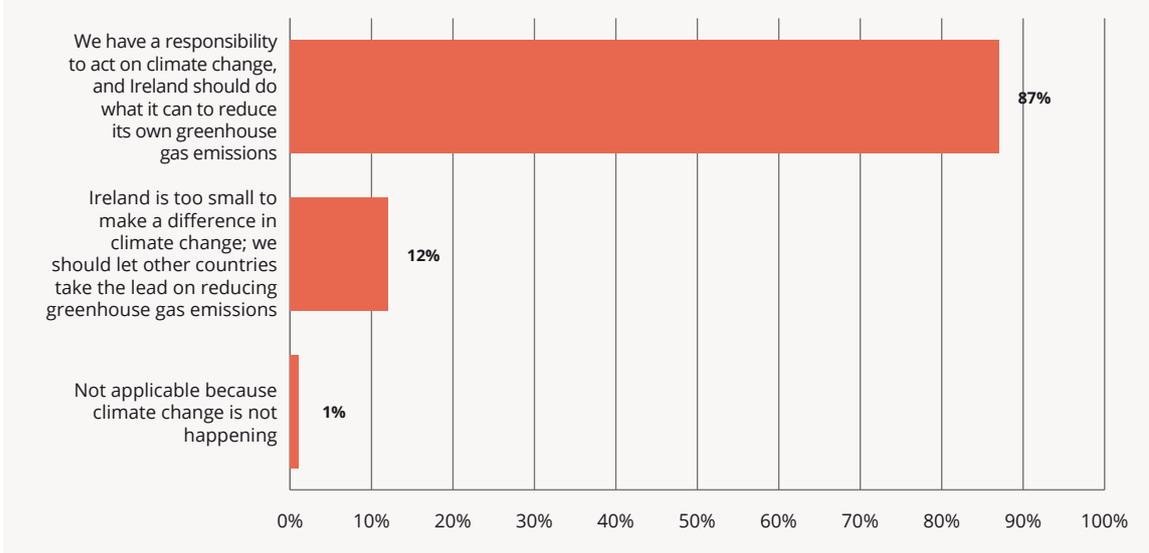
9.2 Over eight in ten people in Ireland say Ireland has a responsibility to act on climate change.

More than eight in ten people in Ireland (87%) say Ireland has a responsibility to act on climate change and should do what it can to reduce its own greenhouse emissions.²²

In contrast, only about one in ten residents (12%) say Ireland is too small to make a difference on climate change and should let other countries take the lead on reducing greenhouse gas emissions.

22 Residents were read the following text for this question: “Now I will read you two statements. Neither may be perfect, but please let me know which comes closer to your point of view. (a) We have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions. (b) Ireland is too small to make a difference in climate change; we should let other countries take the lead on reducing greenhouse gas emissions.” The option “Climate change is not happening” was not read aloud to residents.

Now I will read you two statements. Neither may be perfect, but please let me know which comes closer to your point of view.

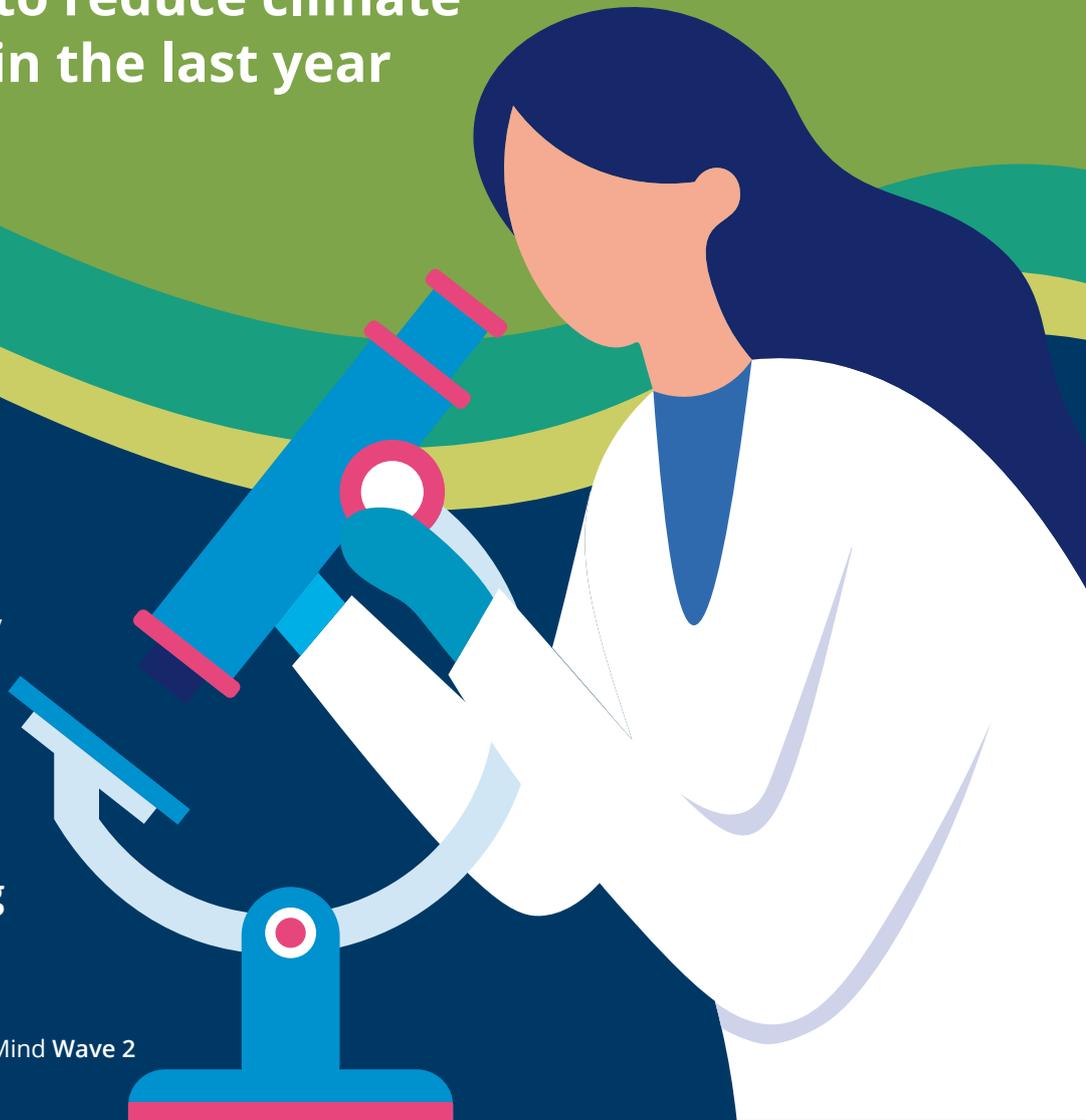




About half of people in Ireland have engaged in consumer actions to reduce climate change in the last year



More than four in ten people in Ireland say that over the next 12 months, they intend to punish companies that are opposing steps to reduce climate change by not buying their products



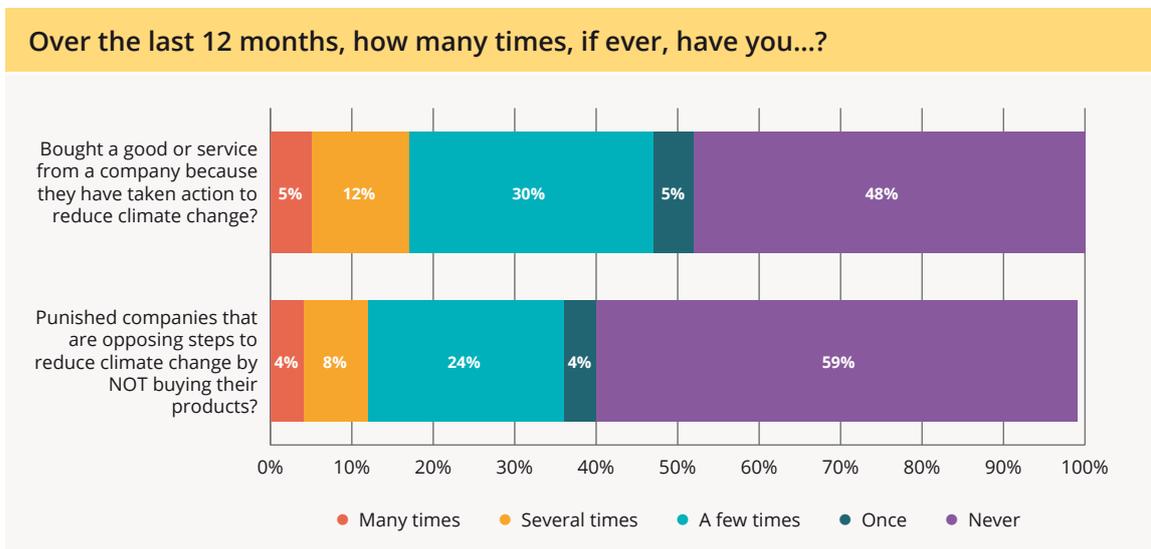
III. Climate Related Behaviours

10. Individual and Consumer Actions to Limit Climate Change

10.1 About half of people in Ireland have engaged in consumer actions to reduce climate change in the last year.

About half of people in Ireland (52%) say that one or more times in the last 12 months, they have bought goods or services from a company because the company has taken action to reduce climate change, including 5% who say they have done so “many times”.

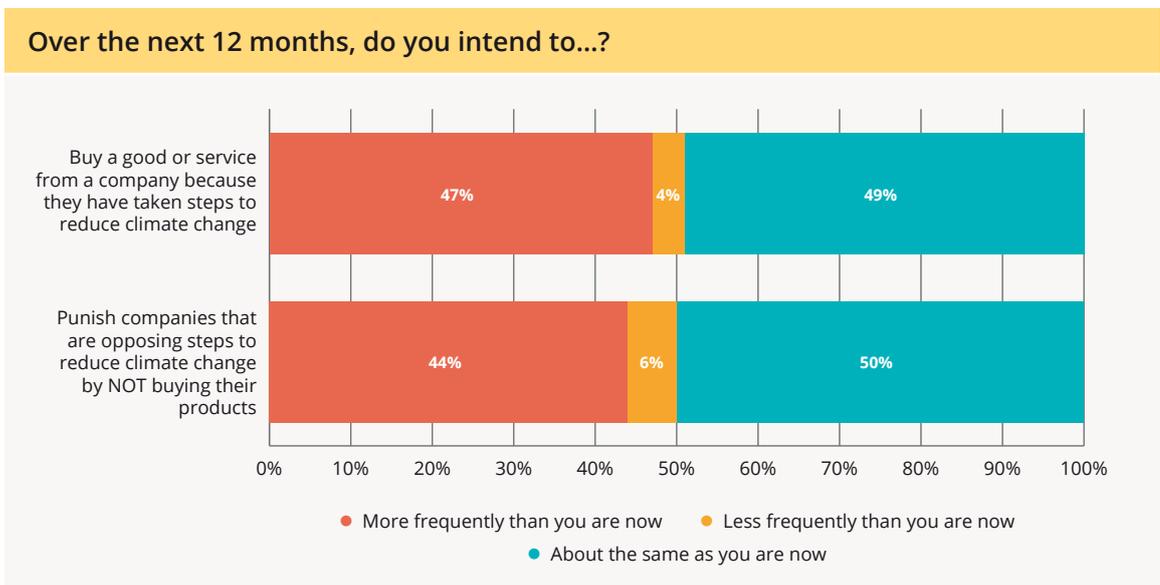
Four in ten residents (41%) say that one or more times in the last 12 months, they have punished companies that are opposing steps to reduce climate change by *not* buying their products, including 4% who say they have done so “many times.”



10.2 More than four in ten people in Ireland say they intend to increase their consumer activism actions in the next year.

More than four in ten people in Ireland (47%) say that over the next 12 months, they intend to buy goods or services from a company more frequently than they are now because the company has taken steps to reduce climate change, while about half (49%) say they plan to buy goods or services from these companies about as frequently as they are now.

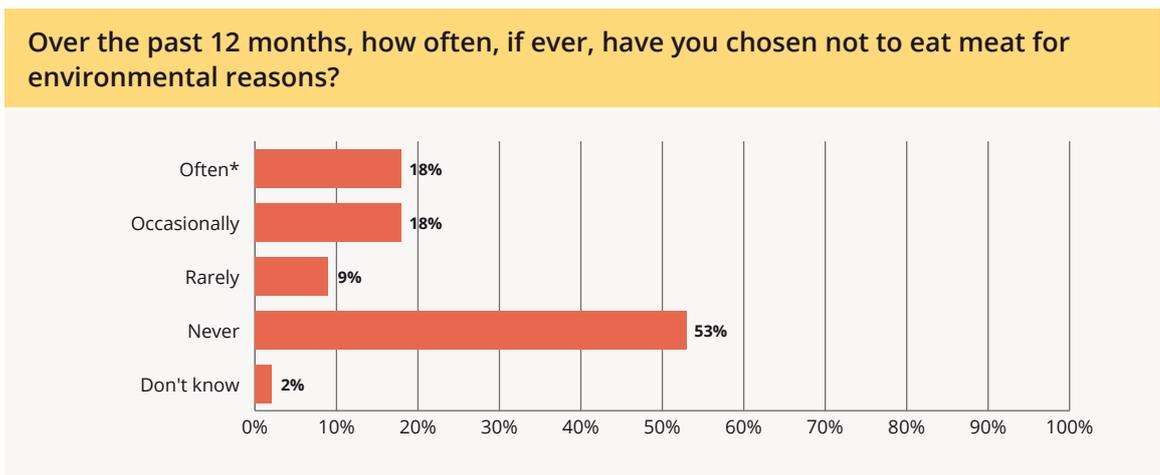
About four in ten people in Ireland (44%) say that over the next 12 months, they intend to punish companies that are opposing steps to reduce climate change by *not* buying their products more frequently than they are now, while half (50%) say they plan to avoid products from these companies about as frequently as they do now.



10.3 About one in three people in Ireland have chosen not to eat meat for environmental reasons in the past year.

More than one in three people in Ireland (37%) say they either have “often” (11%) or “occasionally” (18%) chosen not to eat meat for environmental reasons over the past 12 months, or that they do not ever eat meat (7%).²³

About half of residents (53%) say they have not avoided meat for environmental reasons in the past 12 months.



23 This question has been expanded with a new category of “I don't ever eat meat (I'm vegetarian/vegan)” which was not offered as an answer option in CCIM Wave 1.

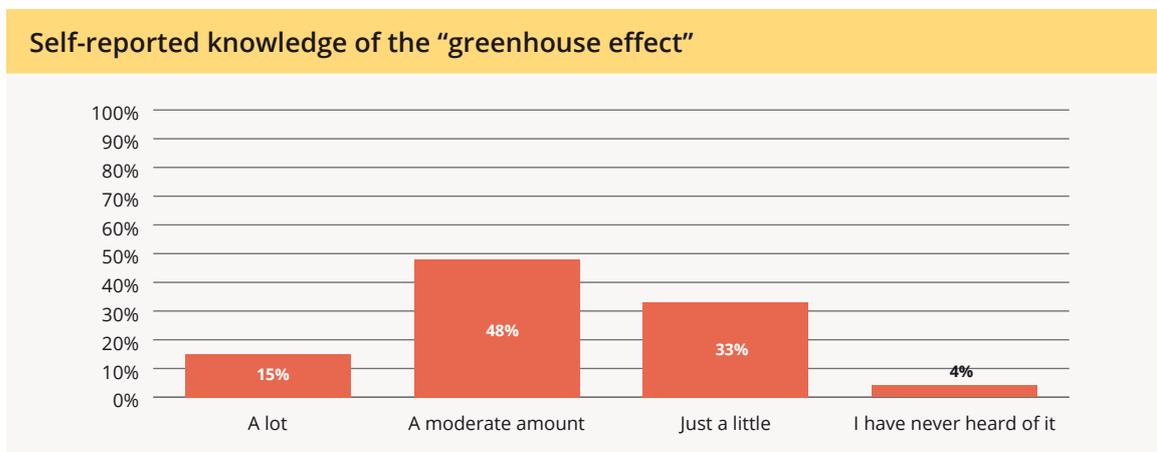
IV. Climate Literacy

11. Climate Change Knowledge

11.1 A large majority of the Irish population have heard of the “greenhouse effect.

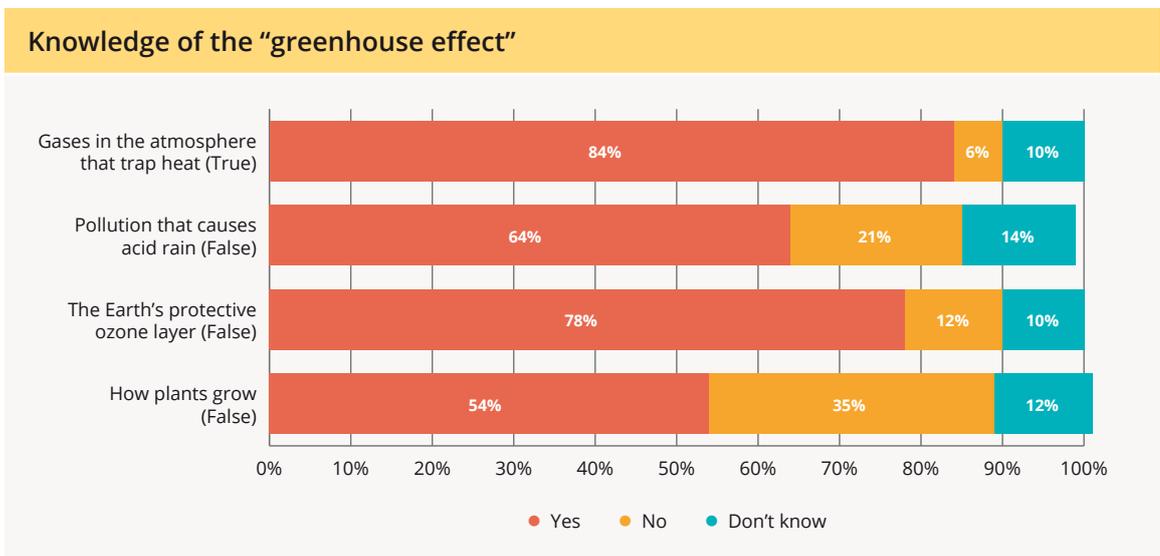
A large majority of the Irish population have at least heard of the “greenhouse effect” (96%), with a very small percentage (4%) saying they have “never heard of it”.

However, relatively few Irish people say they know “A lot” about “the greenhouse effect” (15%) while almost half (48%) say they know “A moderate amount”. One in three (33%) indicate that they know “Just a little”.



All respondents were asked four short yes/no questions in random order about the greenhouse effect to explore whether they understood that it relates to the phenomenon of gases trapping heat.

Eighty-four percent of the respondents correctly selected the answer “Gases in the atmosphere that trap heat” as true, however 64% incorrectly believe that the greenhouse effect refers to the “pollution that causes acid rain”, 78% incorrectly indicated that the greenhouse effect was related to the “Earth’s protective ozone layer” and over half (54%) also incorrectly indicated that the greenhouse effect was related to “How plants grow”.



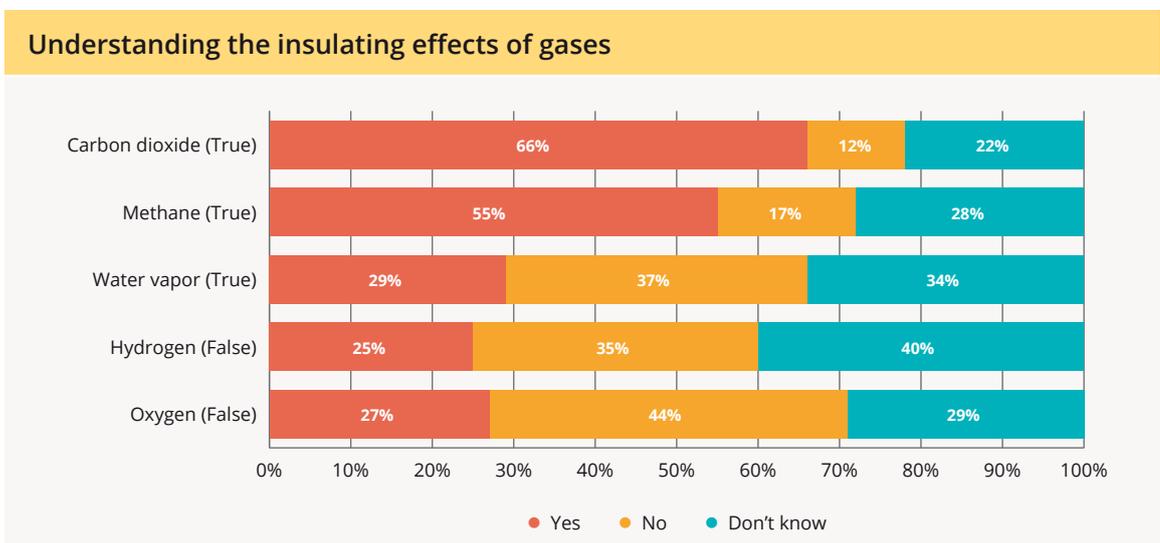
Only a very small proportion of Irish people (5%) answered all four questions correctly. Thus, nationally 96% of adults have heard of the greenhouse effect, but only 5% of Irish adults can readily distinguish the greenhouse effect from other environmental topics such as acid rain, or the ozone layer.

11.2 Two-thirds of people in Ireland understand that carbon dioxide traps heat in Earth’s atmosphere.

To gauge the public’s knowledge of gases contributing to the greenhouse effect, respondents were presented with a randomised list of gases and asked whether each one was good at trapping heat from Earth’s surface in the atmosphere (making it a greenhouse gas). Two-thirds of people in Ireland (66%) correctly identified carbon dioxide as being good at trapping heat (i.e., as a greenhouse gas), and over half (55%) correctly identified methane as such.

There was much less certainty about other gases such as water vapor (which is a greenhouse gas) as well as hydrogen and oxygen (which are not greenhouse gases), where answers were only slightly better than random guesses overall.

Many respondents said they “don’t know” whether the gases listed were good at trapping heat on these questions (ranging from 22% – 40%).



12. Special Section on Public understanding of the Contribution of Individual's Behaviours to Carbon Footprint.

To gauge the public's understanding of what behaviours can help reduce the carbon footprint of an average person²⁴, respondents were presented with a list of activities²⁵, and asked to consider if each activity would make a Large (5% or more), Medium (between 1-5%), or Small (less than 1%) contribution to reducing the carbon footprint of an average person²⁶.

12.1 A majority of Irish people understand the contribution of renewable energy to their carbon footprint.

Majorities of Irish people correctly understand that using energy from renewable sources (70%) and avoiding long distance flights of six hours or more (57%) would make large (5% or more) contributions to reducing the carbon footprint of an average person. The amount of carbon footprint reduction from other behaviours is less well understood by the Irish public, with the percentage of correct answers close to or below the percentage expected by chance responding.

24 Relative contributions to a typical person's carbon footprint are derived from research by Wynnes *et al.* (2020), Anderson *et al.* (2021), and Timmons and Lunn, (2022). The telephone interview format of the Climate Change in the Irish Mind Study required the number and complexity of questions to be reduced from the original studies.

Wynnes, S., Zhao, J., & Donner, S. D. (2020). How well do people understand the climate impact of individual actions? *Climatic Change*, 162(3), 1521-1534. <https://doi.org/10.1007/s10584-020-02811-5>

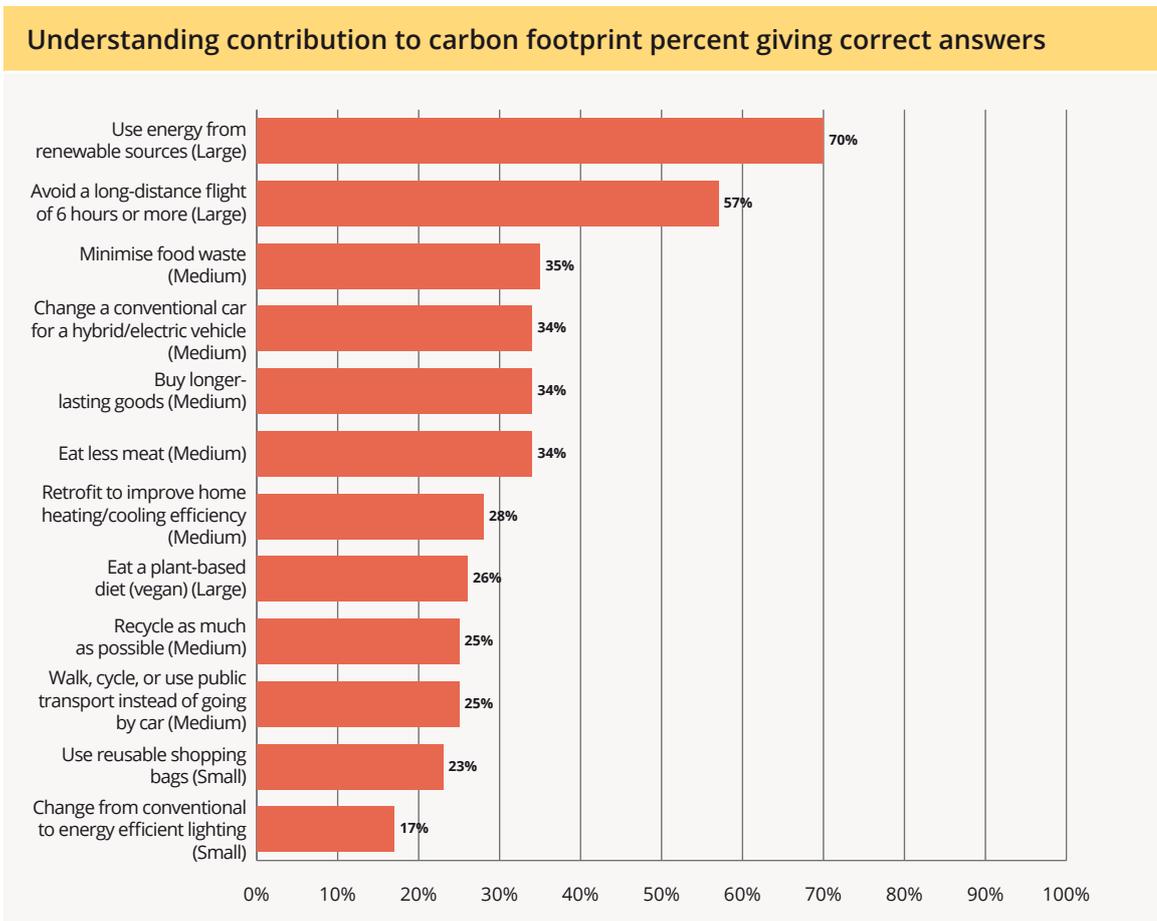
Anderson, Y., Timmons, S., & Lunn, P. D. (2021). Youth knowledge and perceptions of climate mitigation. ESRI. <https://doi.org/10.26504/rs153>

Timmons, S., & Lunn, P. (2022). Public understanding of climate change and support for mitigation. ESRI. <https://doi.org/10.26504/rs135>

25 I will read out a series of actions that could benefit the environment by reducing an average person's carbon footprint. A carbon footprint is an estimate of the amount of greenhouse gases emitted from someone's actions and behaviours. For example, things like home energy use, diet, travel etc. We'd like to hear your best guess on which actions would have a large, medium, or small effect on reducing someone's carbon footprint over the last 12 months. (Order of items randomised)

- A large effect is a reduction of 5% or more in someone's carbon footprint.
- A medium effect is a reduction of between 1-5%
- A small effect is a reduction of less than 1%

26 The papers referenced in this section highlight that many of the actions presented to the respondents also have other benefits (e.g. environmental or health benefits) that are unrelated to carbon footprint contribution.



12.2 Understanding the contribution of individuals' behaviours to their carbon footprint – by sector.

12.2.1 Transport

More than half of respondents (57%) correctly identified avoiding a long-distance flight as making a large contribution to reducing the carbon footprint of an average person. About one in three (34%) correctly identified switching from a conventional car to an electric/hybrid vehicle as making a medium contribution, with a larger proportion (46%) overestimating the size of the effect. Similarly, one in four (25%) correctly identified walking, cycling, or using public transport as making a medium contribution, with the majority (64%) overestimating the contribution of those behaviours.

12.2.2 Energy use

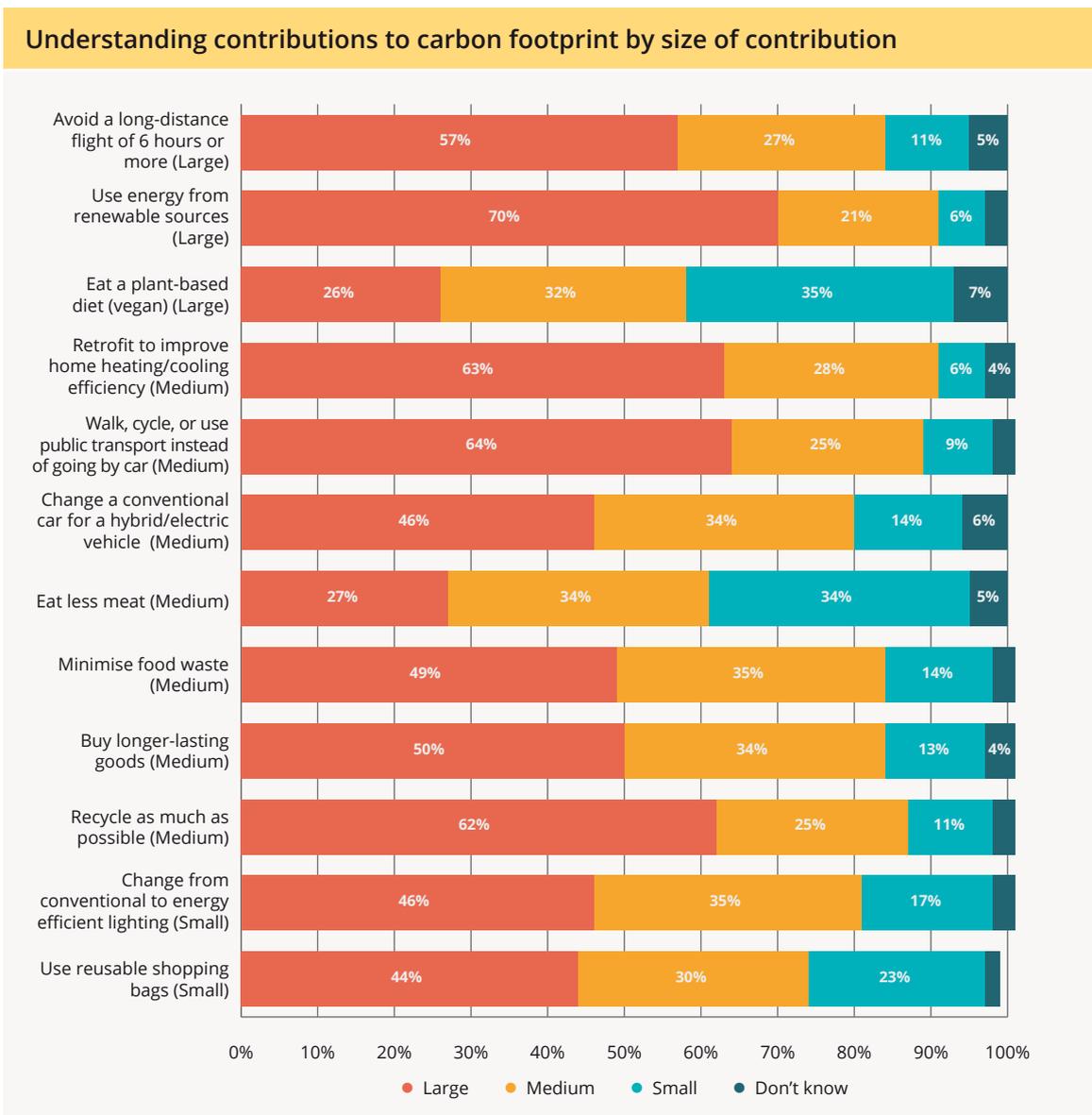
A large majority (70%) correctly identified switching to renewable energy sources as having a large effect on reducing an average person's carbon footprint. For retrofitting to improve home heating/cooling efficiency however, only about one in four (28%) correctly assigned a medium effect, with a majority (63%) overestimating the contribution of home retrofitting to reducing an average person's carbon footprint. Similarly, fewer than one in five (17%) correctly identified changing from conventional to energy efficient lighting as having a small effect, with 81% overestimating the size of its contribution.

12.2.3 Diet

About a quarter of respondents (26%) correctly identified that changing to a plant-based diet would have a large effect on reducing an average person's carbon footprint, whereas a majority (67%) underestimated this contribution as either medium (32%), or small (35%). This question also had the highest percentage of "Don't know" answers (7%). About one in three respondents (34%) correctly identified eating less meat, as having a medium effect on reducing an average person's carbon footprint, with about another third (34%) underestimating its contribution as small, and about a quarter (27%) overestimating its contribution. The contribution of minimising food waste was correctly estimated as medium by about a third of respondents (35%) but was overestimated as large by about half of respondents (49%).

12.2.4 Consumption

Finally, the contribution of using reusable shopping bags to reducing the average person's carbon footprint was strongly overestimated by a large majority (74%), with more than four in ten (44%) estimating that this would make a large contribution and three in ten (30%) estimating that it would make a medium contribution, while only about a quarter (23%) correctly identified it as making a small contribution. Similarly, the effect of habitual recycling was overestimated as large by a majority (62%), with three in ten (30%) correctly identifying it as making a medium contribution. Buying longer lasting goods was correctly identified as having a medium effect by a third of respondents (33%), however half (50%) overestimated its contribution as large.



12.3 Summary

In summary, behaviour changes such as avoiding a long-distance flight and switching to renewable energy sources were correctly identified as having large effects on reducing the carbon footprint of an average person by the majority of respondents. There was an overall tendency to overestimate the effects of other transport, energy, and consumption behaviours. In particular, the highly visible but small contributions of switching to energy efficient lighting and using reusable shopping bags were overestimated by a large majority, which highlights the Irish public's difficulty in separating climate topics from environmental ones in the climate literacy section of this report, and in related research.²⁷

The large carbon footprint impact which would result from an average person changing to eating a plant-based diet was underestimated by the majority of the population. A question posed about eating less meat was answered correctly by about a third of the residents while the same percentage underestimated its effect and nearly as many overestimated its effect. In line with previous research²⁸, this suggests that people do not understand the contribution of eating less meat, or of changing to a plant-based diet to the average person's carbon footprint.

27 Timmons, S., & Lunn, P. (2022). Public understanding of climate change and support for mitigation. ESRI. <https://doi.org/10.26504/rs135>

28 Ritchie, H., Rosado, P., and Roser, M. (2022). "Environmental Impacts of Food Production". Published online at OurWorldInData.org. Retrieved from: '<https://ourworldindata.org/environmental-impacts-of-food>'
Wynes, S., & Nicholas, K. A. (2017). *The climate mitigation gap: Education and government recommendations miss the most effective individual actions*. *Environmental Research Letters*, 12(7), 074024. <https://doi.org/10.1088/1748-9326/aa7541>

Appendix – Climate Change in the Irish Mind Wave 2 Survey Questionnaire

Topic: Quota control

Questions	Details	Response options
A. (INTERVIEWER DO NOT READ OUT: RECORD GENDER OF RESPONDENT)	(Male) (Female)	
B. Age	[NUMERIC OPEN END]	
C. Which of the following best describes your current status?	In Paid Employment Not in paid employment	
D. County of residence	[OPEN END]	

Topic: Worry about climate change impacts/ex weather

Questions	Details	Response options
1. How worried are you that the following might harm your local area?	<p>Randomise</p> <ul style="list-style-type: none"> • Extreme heat • Flooding • Wildfires • Droughts • Water shortages • Rising sea levels • Agricultural pests and diseases • Severe storms • Invasive species • Bog bursts/landslides • Air pollution • Water pollution 	<p>Response options for each:</p> <ul style="list-style-type: none"> • Very worried • Somewhat worried • Not very worried • Not at all worried
2. In your opinion, over the next 10 years how much risk does extreme weather pose to your community?	<ul style="list-style-type: none"> • High risk • Moderate risk • Low risk • No risk 	

Topic: Beliefs

Questions	Details	Response options
3. How much do you know about climate change? Would you say you...	<ul style="list-style-type: none"> • Have never heard of it • Know a little about it • Know a moderate amount about it • Know a lot about it 	
4. Do you think climate change is happening?	<ul style="list-style-type: none"> • Yes [GO TO Q6] • No [GO TO Q7] • Don't know [GO TO Q5] • Yes, climate change is happening 	
[ASK IF Q4 = "Don't know"] 5. Even if you don't know, what's your best guess about whether climate change is happening?	<ul style="list-style-type: none"> • No, climate change is not happening • Not sure at all 	
[ASK IF Q4 = "Yes"] 6. How sure are you that climate change is happening?	<ul style="list-style-type: none"> • Somewhat sure • Very sure • Extremely sure • Not sure at all 	
[ASK IF Q4 = "No"] 7. How sure are you that climate change is not happening?	<ul style="list-style-type: none"> • Somewhat sure • Very sure • Extremely sure • Caused mostly by human activities 	
[ASK ALL] 8. Assuming climate change is happening, do you think it is...	<ul style="list-style-type: none"> • Caused mostly by natural changes in the environment • Caused about equally by human activities and natural changes • Something else • None of the above because climate change is not happening 	
9. Which of the following statements comes closest to your own view?	<ul style="list-style-type: none"> • Most scientists think climate change is happening • There is a lot of disagreement among scientists about whether or not climate change is happening • Most scientists think climate change is not happening • Don't know enough to say 	

Questions	Details	Response options
10. For this next question, I'm going to read you a short list of possible answers and will ask you to pick one. To the best of your knowledge, which one of the following sectors is Ireland's largest source of the pollution that causes climate change? If you're not sure, please provide your best guess.	<p>Randomise</p> <ul style="list-style-type: none"> • Agriculture • Transport • Energy industries, including power generation and oil and gas refining • Residential household and water heating • Waste such as landfills, incinerators, and composting • (DO NOT READ) Climate change is not happening 	

Topic: Risk Perceptions

Questions	Details	Response options
11. How worried are you about climate change?	<ul style="list-style-type: none"> • Very worried • Somewhat worried • Not very worried • Not at all worried 	
12. How important is the issue of climate change to you personally?	<ul style="list-style-type: none"> • Extremely important • Very important • Somewhat important • Not too important • Not at all important 	
13. How much do you think climate change will harm...?	<ul style="list-style-type: none"> • You personally • Your family • People in your community • People in Ireland • People in developing countries • Future generations • Plant and animal species • The Irish way of life (IF NEEDED, READ: This may include Irish cultural traditions) • Irish historic sites 	<p>Response options for each:</p> <ul style="list-style-type: none"> • A great deal • A moderate amount • Only a little • Not at all
14. When do you think climate change will start to harm people in Ireland?	<ul style="list-style-type: none"> • They are being harmed now • In 10 years • In 25 years • In 50 years • In 100 years • Never 	

Topic: Policy Support

Questions	Details	Response options
15. Do you think climate change should be a very high, high, medium, or low priority for the Government of Ireland?	<ul style="list-style-type: none"> • Very high • High • Medium • Low 	
16. Overall, do you think that taking action to reduce climate change will...	<p>Rotate codes 1 & 2</p> <ul style="list-style-type: none"> • Improve economic growth and provide new jobs • Reduce economic growth and cost jobs • Have no effect on economic growth or jobs 	
17. Overall, do you think that taking action to reduce climate change will...	<p>Rotate codes 1 & 2</p> <ul style="list-style-type: none"> • Improve Ireland's quality of life • Reduce Ireland's quality of life • Have no effect on Ireland's quality of life? 	
18. I am going to read a list of people and organisations who could take action regarding climate change. Do you think each of the following should be doing more or less to address climate change?	<p>Randomise</p> <ul style="list-style-type: none"> • You personally • Local government • Government • Politicians • Businesses • Citizens • The media • The Irish Environmental Protection Agency (Irish EPA) 	<p>Response options for each:</p> <ul style="list-style-type: none"> • Much more • More • Currently doing the right amount • Less • Much less
19. Now I will read you two statements. Neither may be perfect, but please let me know which comes closer to your point of view.	<p>Rotate codes 1 & 2</p> <ul style="list-style-type: none"> • We have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions. • Ireland is too small to make a difference in climate change; we should let other countries take the lead on reducing greenhouse gas emissions. • (DO NOT READ) Climate change is not happening 	

Questions	Details	Response options
20. The Irish Government has set a renewable electricity target of 70% by 2030. New infrastructure such as pylons and substations are needed to meet this target. How much would you support or oppose building new infrastructure such as pylons or substations in <i>your</i> local area to support the increased use of renewable energy?	<ul style="list-style-type: none"> • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose 	
21. How much do you support or oppose the following policies to help Ireland achieve its greenhouse gas reduction targets?	<p>Randomise</p> <ul style="list-style-type: none"> • Banning peat, coal and oil for home heating purposes • Government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems • Government grants to make electric vehicles more affordable • Higher taxes on cars that use petrol and diesel • Increased Government investment in public transport such as trains instead of motorways 	<p>Response options for each:</p> <ul style="list-style-type: none"> • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose
22. Agriculture is an important industry for Ireland and its rural economy. Agriculture is also a major source of greenhouse gas emissions, and now accounts for over one-third of Ireland's total emissions. With this in mind, how much do you support or oppose the following policies?	<p>Rotate</p> <ul style="list-style-type: none"> • Reducing the size of the national cattle herd to reduce greenhouse gas emissions • Increasing forest areas in your locality to offset greenhouse gas emissions from agriculture 	<p>Response options for each:</p> <ul style="list-style-type: none"> • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose

Questions	Details	Response options
<p>23. To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?</p>	<p>Randomise</p> <ul style="list-style-type: none"> • Returning the money to all Irish households in equal amounts • Assisting workers in the fossil fuel industry who may lose their jobs • Helping pay for energy efficiency improvements in low-income households • Supporting the further development of new clean energy sources such as marine and hydrogen power • Funding improvements to Ireland's transport infrastructure such as rail, bus corridors, and cycling and walking paths • Funding programs to help Irish communities prepare for and adapt to the impacts of climate change 	<p><i>Response options for each:</i></p> <ul style="list-style-type: none"> • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose

Topic: Behaviours (consumer and political)

Questions	Details	Response options
24. Over the past 12 months, how often, if ever, have you chosen not to eat meat for environmental reasons?	<ul style="list-style-type: none"> • Never • Rarely • Occasionally • Often • I don't ever eat meat (I'm vegetarian/vegan) • Don't know 	
25. Over the last 12 months, how many times, if ever, have you bought a good or service from a company because they have taken action to reduce climate change?	<ul style="list-style-type: none"> • Never • Once • A few times • Several times • Many times 	
26. Over the next 12 months, do you intend to buy a good or service from a company because they have taken steps to reduce climate change ...	<ul style="list-style-type: none"> • More frequently than you are now • Less frequently than you are now • About the same as you are now 	
27. Over the past 12 months, how many times, if ever, have you punished companies that are opposing steps to reduce climate change by NOT buying their products?	<ul style="list-style-type: none"> • Never • Once • A few times • Several times • Many times 	
28. Over the next 12 months, do you intend to punish companies that are opposing steps to reduce climate change by NOT buying their products ...	<ul style="list-style-type: none"> • More frequently than you are now • Less frequently than you are now • About the same as you are now 	

Topic: Norms

Questions	Details	Response options
31. How often do you discuss climate change with your family and friends?	<ul style="list-style-type: none"> • Never • Rarely • Occasionally • Often 	
32. About how often do you hear about climate change in the media, such as TV, movies, radio, newspapers, magazines, online, etc.?	<ul style="list-style-type: none"> • Never • Once a year or less often • Several times a year • At least once a month • At least once a week • Not sure 	
33. Have you heard of any of the following national climate action initiatives (Order of items randomised)	<p>Answer options for each</p> <ul style="list-style-type: none"> • Yes • No 	
<ul style="list-style-type: none"> • Climate Conversations 2023 • National Dialogue on Climate Action • EPA Annual Climate Conference, and Climate Lecture Series • "Reduce Your Use" campaign • "Stop Food Waste" campaign • National power dialogue • Wind Power for all counties strategy 		

Topic: Personal Experience of Climate Change

Questions	Details	Response options
33. Which of the following statements best reflects your view?	<ul style="list-style-type: none"> • Climate change is affecting weather in Ireland • Climate change is not affecting weather in Ireland • Climate change isn't happening • Don't know 	

Topic: Media Sources

Questions	Details	Response options
35. How much do you trust or distrust the following as a source of information about climate change?	<p>Randomise</p> <ul style="list-style-type: none"> • Family and friends • Environmental non-governmental organisations (or NGOs) • Corporations/Businesses • Religious leaders • Scientists • The mainstream news media • Television weather reporters • Political leaders • Community leaders • Online influencers, celebrities, or media personalities • Educators • Journalists • The Irish Environmental Protection Agency (the EPA) 	<p>Response options for each:</p> <ul style="list-style-type: none"> • Strongly distrust • Somewhat distrust • Somewhat trust • Strongly trust

Topic: Climate literacy

Sub topic: Understanding the greenhouse effect

Details	Answer options
<p>We would now like to ask you a few questions about your understanding of climate and related topics like climate change and the greenhouse effect.</p> <p>You don't have to think too long on any of the answers, don't worry about any mistakes. Your honest input is what matters most.</p>	
<p>36. How much do you know about the "greenhouse effect"?</p>	<ul style="list-style-type: none"> • A lot • A moderate amount • Just a little • I have never heard of it
<p>37. To the best of your knowledge, the "greenhouse effect" refers to: (order of items randomised)</p> <ul style="list-style-type: none"> • Gases in the atmosphere that trap heat • The Earth's protective ozone layer • Pollution that causes acid rain • How plants grow 	<ul style="list-style-type: none"> • Yes • No • Don't know
<p>38. To the best of your knowledge, which of the following gases in the atmosphere are good at trapping heat from the Earth's surface? (order of items randomised)</p> <ul style="list-style-type: none"> • Carbon dioxide • Methane • Water vapor • Hydrogen • Oxygen 	<ul style="list-style-type: none"> • Yes • No • Don't know

Topic: Climate literacy

Sub topic: Understanding relative contribution of behaviours to greenhouse gas emissions

Details	Response options
<p>“40. I will read out a series of actions that could benefit the environment by reducing an average person’s carbon footprint.</p> <p>A carbon footprint is an estimate of the amount of greenhouse gases emitted from someone’s actions and behaviours. For example, things like home energy use, diet, travel, etc.</p> <p>We’d like to hear your best guess on which actions would have a large, medium or small effect on reducing someone’s carbon footprint over the last 12 months.</p> <p>A large effect is a reduction of 5% or more in someone’s carbon footprint. A medium effect is a reduction of between 1-5%. A small effect is a reduction of less than 1%.</p> <p>(Item presentation randomised)”</p> <ul style="list-style-type: none"> • Avoid a long-distance flight of 6 hours+ • Change a conventional car for a hybrid/electric vehicle • Walk, cycle, or use public transport instead of going by car • Use energy from renewable sources • Retrofit to improve home heating/cooling efficiency • Change from conventional to energy efficient lighting • Eat a plant-based diet (vegan) • Eat less meat • Minimise food waste • Use reusable shopping bags • Recycle as much as possible • Buy longer-lasting goods 	<p>For each item:</p> <ul style="list-style-type: none"> • Small • Medium • Large • Don’t know

Topic: Demographics

Details	Response options
I would like to ask you some questions for classification purposes. It will not be possible for the answers to be linked back to you in any way. If there are any questions you would rather not answer, please say "pass".	
C.1 Which phrase best describes the area where you live?	<ul style="list-style-type: none"> • A City • A large town (5000+ population) • A small town (1,500 – 4,999 population) • A rural area
C.2 What is the highest level of education which you have completed to date? (READ IF NEEDED: This can include full-time or part-time education or training.)	<ul style="list-style-type: none"> • Primary education • Secondary education • Higher certificate or equivalent (including completed vocational/ technical training/ apprenticeship) • Higher education degree • Postgraduate qualification • Other [OPEN END] • DK/NO ANSWER
C.5 What is your current working status? READ OUT	<ul style="list-style-type: none"> • Working - Full Time (30+ hours per week) • Working - Part Time (-29 hours per week) • Self-Employed • Unemployed • Home Duties/ Primary Carer • Retired • Student
Are you yourself the chief wage earner in your household or not? That is, the person who contributes most money to the household income?	<ul style="list-style-type: none"> • Yes • No
C.6 What is the occupation of the Chief Wage Earner? (If farmer, state acreage. If proprietor/manager/ supervisor, state number of employees. If unemployed for over a year or widow on State Pension, ask about Chief Wage Earner).	[OPEN END]

Details	Response options
C.18 A household may have different sources of income and more than one household member may contribute to it. Concerning your household's total monthly or weekly income over the last 12 months, with which degree of ease or difficulty is the household able to make ends meet?	<ul style="list-style-type: none"> • With great difficulty • With difficulty • With some difficulty • Fairly easily • Easily • Very easily • Prefer not to say (Do Not Read Out)
C.8 What is your Marital Status, are you...	<ul style="list-style-type: none"> • Single • Married • Cohabiting • Widowed • Separated/Divorced • Civil Partnership
Do you have any dependent children living with you who are aged...	<ul style="list-style-type: none"> • 0-4 years • 5-12 years • 13-17 years
Do you have any dependent children living with you who are aged 18 years+?	<ul style="list-style-type: none"> • Yes • No
Are you an Irish citizen?	<ul style="list-style-type: none"> • Yes • No

Details	Response options
<p>[ASK ALL]</p> <p>Intro TEXT</p> <p>The next two questions we will ask are in relation to, ethnicity and gender. It is asked solely in order to ensure we have spoken to a representative sample of the population. If there are any questions you would rather not answer, please say “pass” and we will move on to the next.</p>	
<p>What is your ethnic background?</p>	<ul style="list-style-type: none"> • White: Irish • White Irish: Irish traveller • White Irish: Any other white background • Black or black Irish: African • Black or black Irish: Any other Black background • Asian or Asian Irish: Chinese • Asian or Asian Irish: Any other Asian background • Other including mixed background • Other [OPEN END] • Prefer not to say
<p>Do you describe yourself as a man, a woman, or in some other way?</p>	<ul style="list-style-type: none"> • Man • Woman • Some other way





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