Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Climate Change's Four Irelands:
An Audience Segmentation Analysis

YALE PROGRAM ON
Climate Change
Communication

National Dialogue on Climate Action

Rialtas na hÉireann
Government of Ireland

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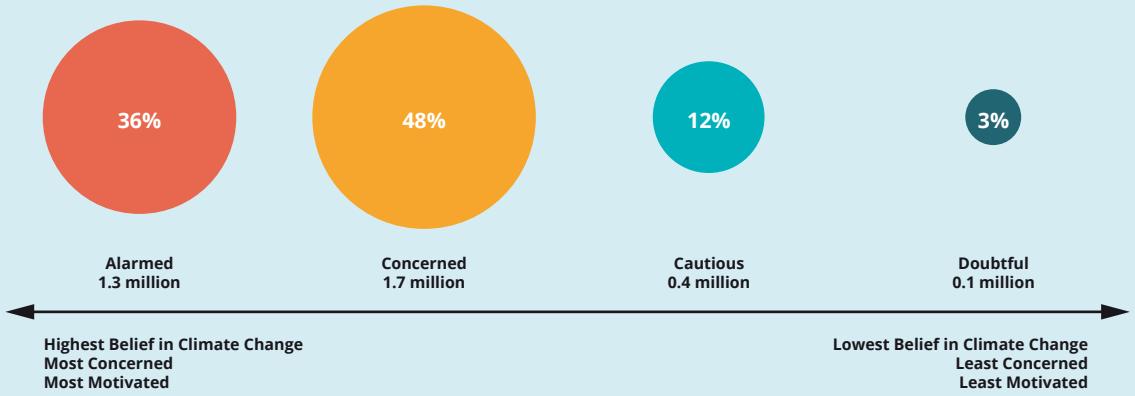
1. Climate Change's Four Irelands

From May to July 2021, the Irish Environmental Protection Agency (EPA), in partnership with the Yale Program on Climate Change Communication (YPCCC) and the survey firm Behaviour & Attitudes, conducted a nationally representative survey of climate change knowledge, attitudes, policy support, and behaviour among the Irish public.

The initial report generated by this survey, *Climate Change in the Irish Mind*[1], examined the responses of the Irish public as a whole. This current report takes the analysis a step further by identifying four distinct audiences based on views about climate change among the Irish public and examining the differences and similarities among them.

The four climate audiences strongly differ on their knowledge, levels of worry, and willingness to take personal action on climate change. These audiences reflect a spectrum of views about climate change and are labelled as: The Alarmed, Concerned, Cautious and Doubtful.

Figure 1: Irish climate change audience proportions based on 2016 census adult population, presented in millions



1 Leiserowitz, A., Carman, J., Rosenthal, S., Neyens, S., Marlon, J., Finegan, S., Cotter, E., Rochford, M. F., Desmond, M., Smith, S., Leonard, P., Cronin, C., O'Mahony, J., & Reaper, L. (2021). *Climate Change in the Irish Mind*. New Haven, CT: Yale Program on Climate Change Communication.

The **Alarmed** (36% of the Irish population) strongly believe that climate change due to human activity is a real and immediate threat. They strongly support climate mitigation and adaptation policies, and are willing to take direct action through political and economic activity. The Alarmed are most likely to be highly educated, younger, urban, female, and employed.

The **Concerned** (48% of the Irish population) are the largest audience. They are convinced that climate change is a serious issue, but when compared to the Alarmed are less worried about it and view it as a less immediate threat. They support policies addressing climate change and adaptation, but are less willing than the Alarmed to take direct action themselves. The Concerned are evenly split on gender and are most likely to be urban, highly educated, and employed.

The **Cautious** (12% of the Irish population) believe climate change is happening but are less sure of the causes and are less likely to think it will personally affect them. They support climate-related policies, but few are willing to take direct actions themselves. The Cautious are most likely to be male, older, retired, and have moderate levels of education.

About half of the **Doubtful** (3% of the Irish population) believe climate change is happening, but with less certainty than other audiences, while smaller proportions say climate change is not happening or say that they don't know. The Doubtful are overwhelmingly not worried about climate change, and do not perceive it as a threat. They partially support climate-related policies but strongly oppose bans or increased taxation on home or transport fuels. They are most likely to be male, 45-59 years of age, unemployed, and have moderate levels of education.

2. Key findings

2.1 Climate change awareness and knowledge

Climate change is recognised as a major issue by the majority of Climate Change's Four Irelands audiences. While awareness of climate change is high, knowledge of the human driven nature of the issue is clustered within the two largest audiences of Alarmed (1.3 million) and Concerned (1.7 million) adults, with those in the Cautious (0.4 million) and Doubtful (0.1 million) audiences more likely to say that it is caused by natural changes or that they don't know what causes it.

2.2 Worry, harm and impacts of climate change

The highest levels of worry about climate change are found in the Alarmed audience, which is also the most likely to see climate change as a near-term risk that will affect them, their local community, and the nation. The other audiences are progressively less worried and perceive climate change as less of a risk than the Alarmed.

The small Doubtful audience views climate change as having little to no impact on them personally or on the world around them.

2.3 Climate change scepticism

Climate scepticism is extremely rare in Ireland. Of the three percent (approximately 100,000 people) of the Irish public who are Doubtful, only about four in ten think climate change is not happening (approximately 40,000 people). Much of the Doubtful audience also express a lack of concern about climate change and feel they do not know much about it.

2.4 Engagement with climate change

The Alarmed and Concerned audiences are the groups most engaged with the topic of climate change. The Alarmed and Concerned are the most likely to communicate with family and friends about climate change, or to take personal actions related to it.

2.5 Support for climate policy

Many climate change policies, including the taxation of fossil fuels, are either 'strongly' or 'somewhat' supported by over 90% of the Alarmed and Concerned audiences. This represents a very large proportion of the Irish population, almost three million people, who say they support government policies aimed at reducing emissions and adapting to the impacts of climate change.

Combining all audiences, 75% of the Irish public strongly support increasing energy efficiency in low-income homes, and 73% support further development of renewable energy.

Combining all audiences, the least popular taxation policy was returning fossil fuel taxes to all households in equal amounts, with 35% strong support overall.

2.6 Framing of climate policy

Policies that are framed as redistributive and protective of those in lower socioeconomic groups (e.g. energy efficiency grants or a redistributive carbon tax) receive the highest levels of support across all audience segments, even among the Cautious and Doubtful audiences.

When policies are framed as an outright ban (e.g. banning the sale of peat, coal, oil), opposition sharply increases among the Concerned, Cautious, and particularly the Doubtful audiences.

2.7 Personal intention versus action gap

Reported intentions to personally act to address climate change are highest among the Alarmed and Concerned audiences. However, the proportions of these audiences who report that they have already taken actions to address climate change are much lower. Intentions to support government climate policy are high, though intentions to change personal economic behaviours are not as strong overall.

2.8 Absence of urban/rural divides

There is no evidence of a strong urban/rural divide in opinions about climate change.

The urban or rural populations are not heavily concentrated in any single audience segment, although the Alarmed are slightly more likely to live in urban settings, whereas the Cautious are slightly more likely to live in rural areas. This indicates that, in general, a wide array of views are found in both types of settings.

2.9 Engaging Cautious and Doubtful audiences about climate change

The Cautious report the lowest overall understanding of the topic of climate change, with the Doubtful being more polarised, containing members who believe that they have a strong understanding of climate change and members who report a very low understanding.

A larger proportion of the Cautious and Doubtful report that they 'never' watch, listen to, or read content via social media and streaming services than the Alarmed and Concerned. The Cautious and Doubtful are most likely to consume national or local media rather than social media or streaming content.

3. Introduction

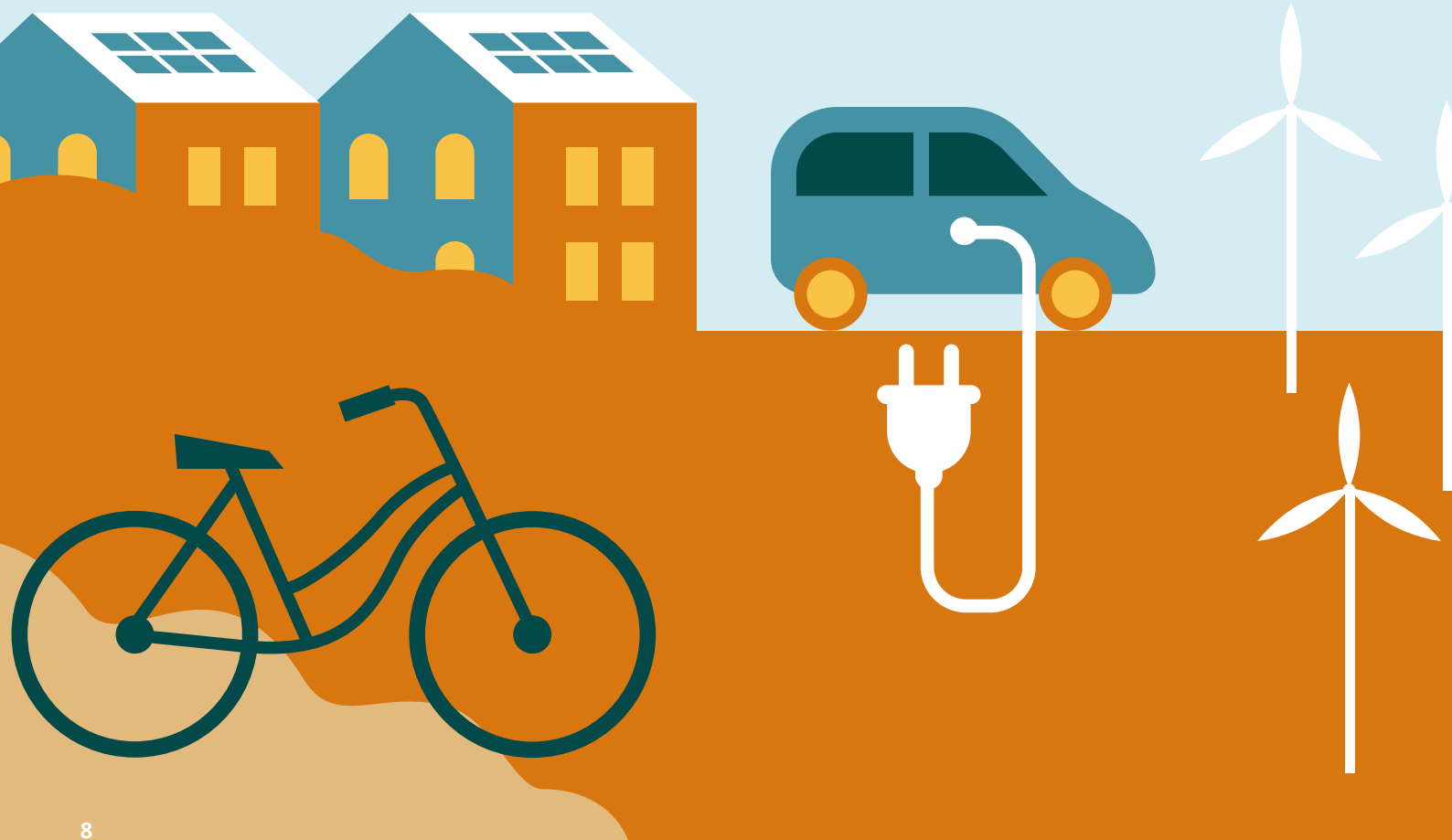
3.1 Climate Change in the Irish Mind

One of the first rules of effective communication is to "know thy audience." To engage with the public on the topic of climate change requires recognition of individual differences in beliefs and attitudes about the topic along with multiple psychological, historical, cultural, and political influences.

In Ireland, surveys on general topics, such as those carried out by Eurobarometer, indicate that climate change awareness has become mainstream (European Commission, 2022)[2]. However, less is known about the underlying motivations of the Irish population and how these impact people's engagement with the issue and willingness to act. This suggests that a deeper analysis of the Irish population is needed to better understand the diversity of people's willingness to change their behaviours in response to climate change.

The *Climate Change in the Irish Mind* (CCIM) project is a study of the Irish people's beliefs, attitudes, policy preferences and behaviours regarding climate change. This work was undertaken by the Environmental Protection Agency (EPA) and the Yale Program on Climate Change Communication in support of the National Dialogue on Climate Action and is the first nationally representative survey of its kind in Ireland.

2 Eurobarometer. (2022). Public opinion in the European Union – Ireland fact sheet. European Commission. https://europa.eu/eurobarometer/surveys/detail/2693



3.2 Study framework

The approach to this work is based on the established methodology of the "Global Warming's Six Americas" project conducted by the Yale Program on Climate Change Communication and the George Mason University Center for Climate Change Communication (Leiserowitz, Roser-Renouf et al., 2021)[3].

The Global Warming's Six Americas framework has been used by a variety of communicators, including scientists, educators, policymakers, government agencies, journalists, and advocates. Similar segmentation approaches have also been implemented in other countries, including Australia, India, Germany, Singapore and now in Ireland. The survey and reporting have been tailored to meet Ireland's particular socio-economic context, adapting to Ireland's ethnic and social make-up by using demographic measures that are compatible with standards set by the Central Statistics Office as appropriate.

3.3 Audience segmentation

Audience segmentation is a statistical analysis that can help identify different groups of people who share similar characteristics for engagement and communication. A technique called *latent class analysis* is used to identify patterns in respondents' answers to climate change questions. These patterns identify groups of people who share a similar set of beliefs, attitudes, and behaviours. This can support prediction, explanation, and understanding of unique groups and can provide insight into how to craft more effective public communication strategies and activities.

This kind of analysis can assess group members' understanding of climate change and help develop tailored communication strategies and new messages to advance dialogue and action[4].

3 Leiserowitz, A., Roser-Renouf, C., Marlon, J., & Maibach, E. (2021). Global Warming's Six Americas: A review and recommendations for climate change communication. *Current Opinion in Behavioral Sciences*, *42*, 97-103. https://doi.org/10.1016/j.cobeha.2021.04.007

4 In the U.S. the analysis identified six unique "interpretive communities" who each respond to the issue of global warming in their own distinct ways; the "Six Americas," which represent a spectrum from those Alarmed about global warming to the Dismissive who do not believe climate change is happening.

3.4 Project outputs

The outputs from the *Climate Change in the Irish Mind* research include:

- National level baseline survey and report on attitudes and behaviours of the Irish public towards climate change; "*Climate Change in the Irish Mind*" (Leiserowitz et al. 2021)[5], published in December 2021.
- "*Climate Change's Four Irelands,*" a segmentation of the Irish population and how they respond to climate change issues (the current publication).
- Interactive maps to allow the data to be presented by geographic region.

'*Climate Change's Four Irelands: An Audience Segmentation Analysis*' is the second report from the CCIM project. This segmentation report uses the data from the CCIM survey which examines public climate change beliefs, risk perceptions, policy support, behaviours. This research has identified four unique audiences within the Irish population that each respond to climate change in their own distinct way. These audiences are discussed in detail in later sections, but are briefly identified as:

- The Alarmed
- The Concerned
- The Cautious
- The Doubtful

3.5 This report

This report identifies and describes these four audiences, providing in-depth descriptions of the demographic and social characteristics of each audience, the associated attitudes, behaviours, and the climate related policies they are likely to endorse. The report expands on the findings of the first CCIM report along six key themes, with each theme broken down by audience segment. The six themes are:

I. Climate Change Beliefs
II. Emotional Responses and Perceived Risks of Climate Change
III. Personal and Social Engagement with Climate Change
IV. Impacts of Climate Change
V. Climate Policies
VI. Climate-Related Behaviours
VII. Demographics and Social Characteristics

Audience profiles are also presented in Appendix 3. The audience profiles present the same information as the main report text but arrange this information by audience instead of by topic.

5 Leiserowitz, A., Carman, J., Rosenthal, S., Neyens, S., Marlon, J., Finegan, S., Cotter, E., Rochford, M. F., Desmond, M., Smith, S., Leonard, P., Cronin, C., O'Mahony, J., & Reaper, L. (2021). *Climate Change in the Irish Mind*. New Haven, CT: Yale Program on Climate Change Communication.

3.6 Uses of the project data and segmentation

This report provides a useful framework and tool to help strategic communicators identify and understand their target audiences to engage the public more effectively in climate science and solutions. The insights can support climate policy and decision makers, climate educators and communicators across Irish society, including government, agencies, local authorities, academic institutions, environmental organisations, businesses, scientists, and the media.

Successfully addressing the climate change challenge will require a diversity of messages, messengers, and methods, each tailored to meet the needs of different target audiences. The findings of the *Climate Change in the Irish Mind* project and the *Climate Change's Four Irelands* segmentation will be used to inform and support national communications on climate change by providing public access to high-quality, timely and nationally representative information on public attitudes and behaviours about this topic.

Other potential future uses of the CCIM data in the Irish context include:

- The formation of national engagement strategies, targeting and communicating key messages.
- Development of policy briefs, opinion pieces and working papers on behaviours, actions, policy preferences.
- Analysis of data and generation of information on key sub-populations (e.g., youth, households, agriculture).
- Providing an approach that can be repeated on a frequent basis (e.g., annually) to track changes in attitudes and behaviours.

Future iterations of this research in Ireland could track changes in the proportion and make-up of the 'Four Irelands' over time and investigate other social, economic, cultural, or political dimensions of the audience segments. The findings could also inform the design of experimental research on messaging with each of the Four Irelands, or with specific subsets of the public. This can inform more effective climate change engagement and activation in support of the National Dialogue on Climate Action. This project provides a scientifically based in-depth understanding of the climate change beliefs, attitudes, policy support, and behaviours of the Irish population.

4. Methodology

4.1 Survey fieldwork

The fieldwork was conducted during 24th May to 29th July 2021 by the survey company Behaviours & Attitudes following recognised industry standards.

The survey was conducted with a representative sample of the Irish population, aged 18 years and over. Survey respondents were recruited using a random digit dial sample of working Irish telephone numbers. A total of 84,961 numbers were contacted by telephone, with about 80% of survey respondents reached through mobile phone numbers and 20% through landline phone numbers. A total of 4,030 interviews were completed (including 30 pilot interviews to test survey wording and timing), for a response rate of 5%. All questionnaires were administered by call agents using computer-assisted telephone interviewing (CATI) software. The survey took, on average, 25 minutes to complete.

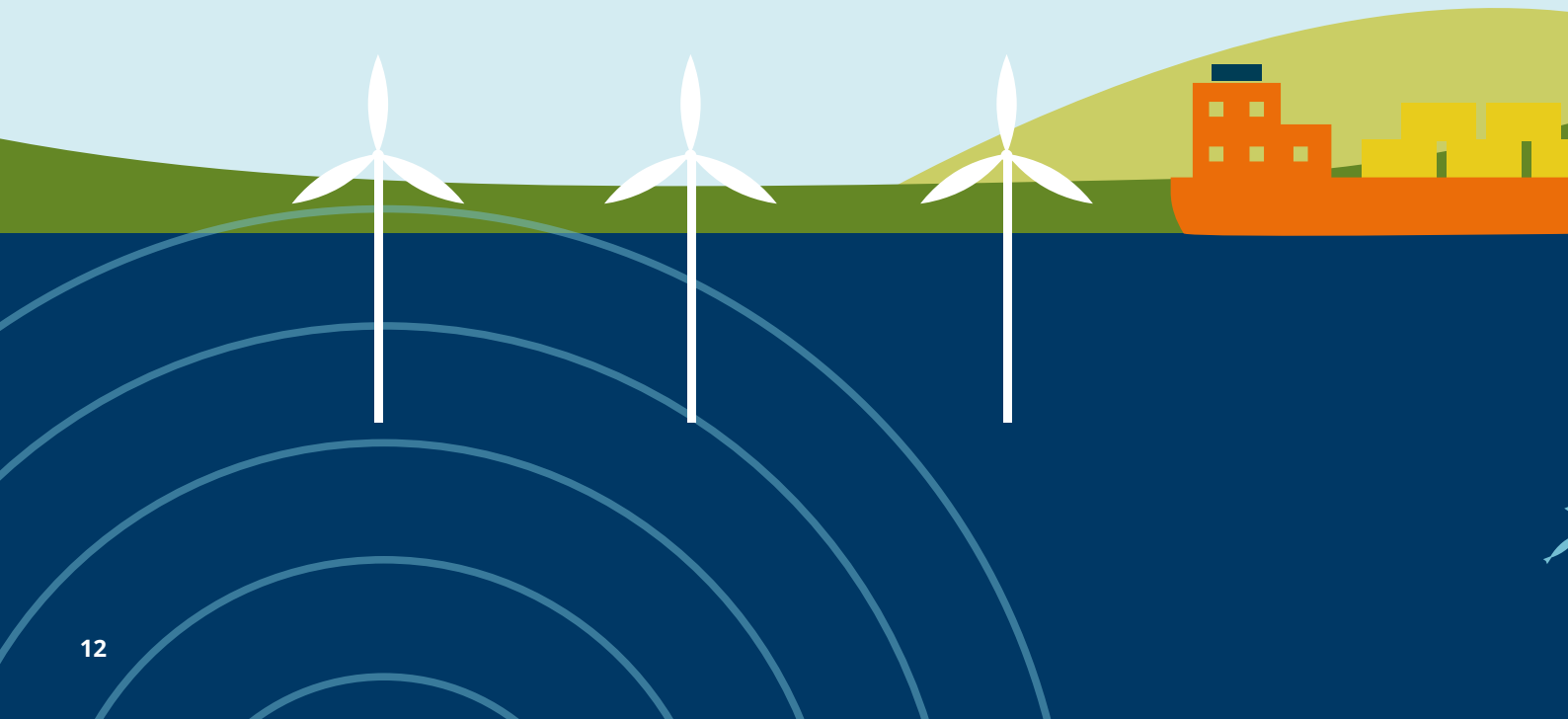
Gender, age, work status and region quotas were used to ensure sample representativeness. Key demographic variables were also weighted, post survey, to match Central Statistics Office norms. For further information on the methodology, see Appendix 2.

4.2 Segmentation

Latent class analysis (LCA) was conducted on a subset of *Climate Change in the Irish Mind* survey questions to identify distinct audiences in the population based on similar patterns of responses to questions about climate change.

LCA works by analysing how different types of people can be clustered into smaller audiences or "classes" based on their pattern of responses. Based on other large-scale surveys using similar methods (e.g., Leiserowitz et al., 2021)[6], we would expect somewhere between three to six distinct audience segments to be found in the Irish population.

6 Leiserowitz, A., Roser-Renouf, C., Marlon, J., & Maibach, E. (2021). Global Warming's Six Americas: A review and recommendations for climate change communication. *Current Opinion in Behavioral Sciences*, *42*, 97-103. https://doi.org/10.1016/j.cobeha.2021.04.007



The analysis then balances the accuracy of categorisation against the usefulness of the audience sizes for reporting and strategic purposes. In the CCIM data, this process led to the development of four distinct segments as described in the Climate Change Beliefs section. It should be noted that these descriptions are indicative of the typical make up of this group. Where an audience is described as "male" or "urban," it means that there is a higher likelihood that the typical person from this segment is male or is likely to live in an urban setting. It does not indicate that there are no females or people from a rural setting in the audience. Further technical details of this analysis can be found in Appendix 2.

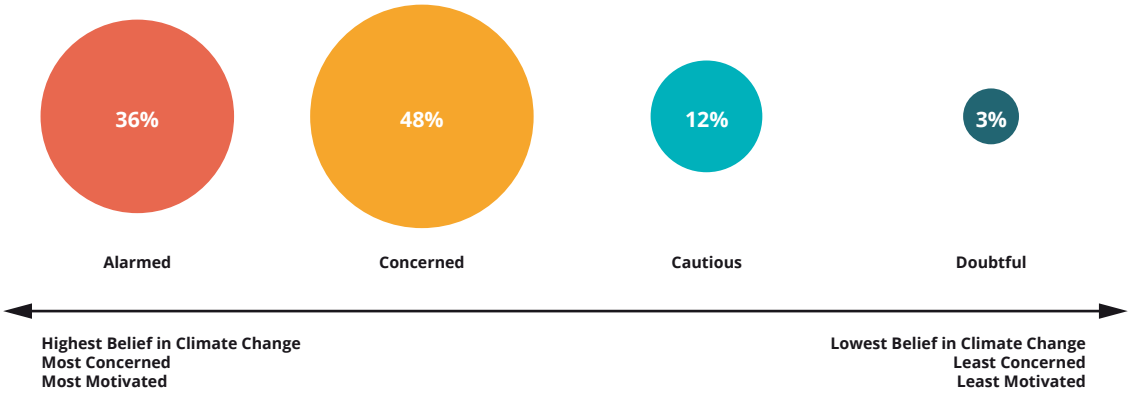
4.3 Rounding error and tabulation

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%).

5. Four Segments of the Irish Population

Analysis of the *Climate Change in the Irish Mind* data identified four distinct segments (also referred to as "audiences") related to climate change, within the Irish public. The segments are described as the Alarmed (36% of the adult Irish public), the Concerned (48%), the Cautious (12%) and the Doubtful (3%). These groups are represented graphically below. A detailed description of each audience is then provided highlighting important features of each group.

Figure 2: Irish climate change audience segments



5.1 The Alarmed

5.1.1 Who are the Alarmed?

The Alarmed are 36% of the Irish public. They are the segment of the Irish public most convinced climate change is happening. They understand that human activities are the cause of climate change and that scientists agree that it is happening (i.e., that there is a scientific consensus). The Alarmed are very worried about climate change and are the audience most likely to view climate change as personally threatening.

The Alarmed believe the impacts of climate change are already happening here and now. They are the most likely to say that climate change is affecting the weather and poses a great risk to people and places in Ireland.

The Alarmed are the segment most likely to hear about climate change in the media at least weekly and to talk often to their friends or family about the issue. The Alarmed strongly support climate policies, want more action by everyone, from government to individuals, and many are willing to get personally involved in climate activism.

5.1.2 Demographics of the Alarmed

The Alarmed are more likely than other segments to be female (57%), be 18-29 years old (23%), have higher education or postgraduate degrees (64%), and live in an urban area (69%). They are the most likely to have no stated religion (30%) and are *less* likely than other segments to be Roman Catholic (50%). They are more likely than the Cautious or Doubtful to be working in paid employment (59%). The Alarmed watch, listen to, or read content almost every day or more often from the national media (56%), local media (40%), social media (46%), and streaming services like Netflix, Now, Disney+, etc. (35%).

5.2 The Concerned

5.2.1 Who are the Concerned?

The Concerned are Ireland's largest climate change audience, comprising 48% of the population. They are convinced that climate change is happening, although they are less certain than the Alarmed. The great majority of the Concerned understand there is a scientific consensus on climate change, and the majority say human activities are the cause of climate change. Most are somewhat worried about the issue.

The Concerned are less likely than the Alarmed to view climate change as personally threatening or happening here and now, but still notably more likely to do so than members of the other segments. About half hear about climate change in the media at least once a week and occasionally talk to their friends or family about the issue.

The Concerned strongly support climate policies, want more action by everyone, from government to individuals, and some are willing to get personally involved in climate activism.

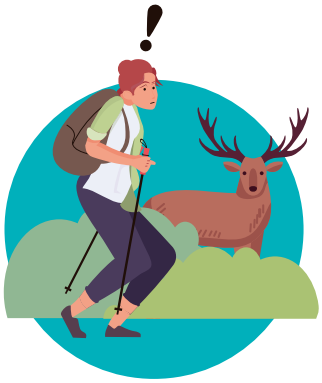
5.2.2 Demographics of the Concerned

The Concerned are equally likely to be male or female (50% each), and are close to national averages on age, urban residence (65%), and religion (62% Roman Catholic). The Concerned are more likely than the Cautious or Doubtful to hold a higher education or a postgraduate degree (55%), and to work in paid employment (59%). The Concerned watch, listen to, or read content almost every day or more often from the national media (57%), local media (40%), social media (40%), and streaming services like Netflix, Now, Disney+, etc. (34%).

5.3 The Cautious

5.3.1 Who are the Cautious?

The Cautious are 12% of the Irish population. They believe that climate change is happening but are less certain about it than the Alarmed or Concerned. A majority understand that there is a scientific consensus that climate change is occurring, but only about a third of the Cautious understand human activities are the cause of climate change.



Nearly half believe climate change is caused equally by human activities and natural changes. Few of the Cautious say they feel well informed or worry about the issue. The Cautious do not perceive climate change as dangerous to themselves or to other people today, but they expect it to harm future generations and plant and animal species.

About half of the Cautious hear about climate change in the media at least once a week, but they talk to their friends or family about the issue relatively infrequently. The Cautious support climate policies and want more action by everyone, from government to individuals, but relatively few are willing to get personally involved in climate activism.

5.3.2 Demographics of the Cautious

The majority of the Cautious are male (58%) and the segment tends to be older (they are the segment most likely to be more than 60 years old; 30%). The Cautious tend to have lower levels of formal education than the Alarmed and Concerned, including 35% who have primary or secondary school as their highest completed level of education. They are the segment most likely to be retired (24%) which is one of the reasons they are more likely than the Alarmed and Concerned to *not* have paid employment (48%). The Cautious watch, listen to, or read content almost every day or more often from the national media (48%), local media (39%), social media (39%), and streaming services like Netflix, Now, Disney+, etc. (30%).

5.4 The Doubtful

5.4.1 Who are the Doubtful?

The smallest of the four segments (3% of the Irish public), the Doubtful are split between those who believe climate change is happening, those who don't, and those who say they don't know. They are the segment most likely to say that climate change is caused by natural changes in the environment, and a majority do not recognise that there is a scientific consensus.

The Doubtful overwhelmingly say they are not at all worried about climate change and do not perceive it as a serious threat to themselves, Ireland, or people in general. About half hear about climate change in the media at least once a week, but most rarely or never talk to their friends or family about the issue.

The Doubtful narrowly support most climate policies, but a majority oppose banning the use of peat, coal, and oil for home heating purposes and raising taxes on cars that use petrol and diesel. Fewer than half want more action on climate from the government, individuals, etc., and very few are willing to become personally involved in climate activism.

5.4.2 Demographics of the Doubtful

The Doubtful are the audience most likely to be male (74%) and 45 to 59 years old (31%). They have lower educational attainment than the Alarmed and Concerned, including 32% with primary or secondary school as their highest completed level of education. They are the segment most likely to be unemployed (18%) and are more likely than the Alarmed and Concerned to *not* have paid employment (49%), or to be self-employed (including farmers; 9%). The Doubtful are the *least* likely to say they have "no religion" (12%). The Doubtful watch, listen to, or read content almost every day or more often from the national media (41%), local media (39%), social media (36%), and streaming services like Netflix, Now, Disney+, etc. (26%). However, the Doubtful are much more likely than other segments to say they never use national media (31%), local media (34%), social media (45%), or streaming services (42%).

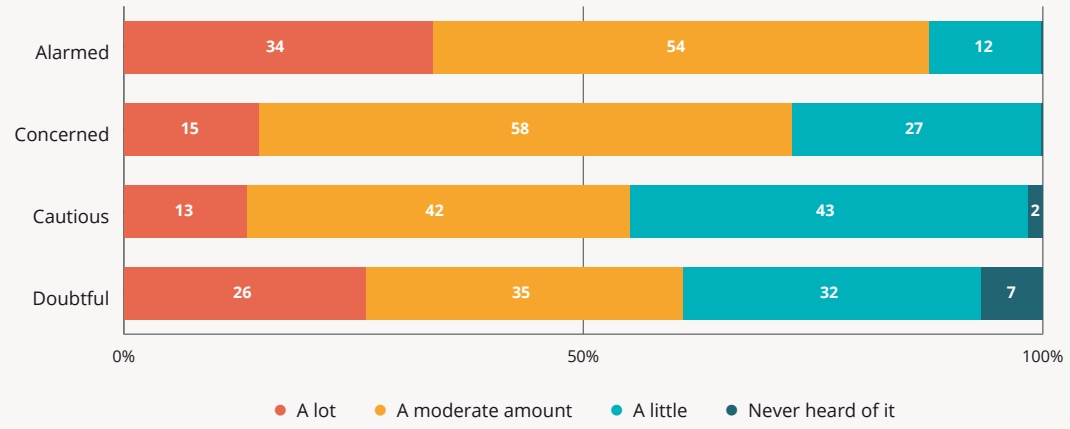
6. Climate Change Beliefs

Respondents were asked a series of questions about their climate change beliefs, such as whether they believe that climate change is happening, and their degree of certainty in that belief.

The main points of difference between the four climate change audiences is their degree of certainty that climate change is happening and how immediate and threatening climate change is perceived to be. Specifically the Alarmed feel the most knowledgeable about climate change (34% say they "know a lot"), with the Concerned more likely to say they "know a moderate amount" (58%) and the Cautious most likely to say they "know a little." Relative to the Alarmed, the drop off in self-reported knowledge about climate change across the groups is steep. However, a quarter of the Doubtful report that they 'know a lot' about climate change compared to 15% of the Concerned and 13% of the Cautious. Only a little more than 1% of the Irish adult population do not think climate change is happening. This sub-group comprises 37% of the small Doubtful audience, or approximately 40,000 people. It is those in the Alarmed and Concerned groups who are the most engaged with the topic, who are doing the most to communicate with others on climate change through direct action themselves, and through conversations with family and friends about climate change. [7]

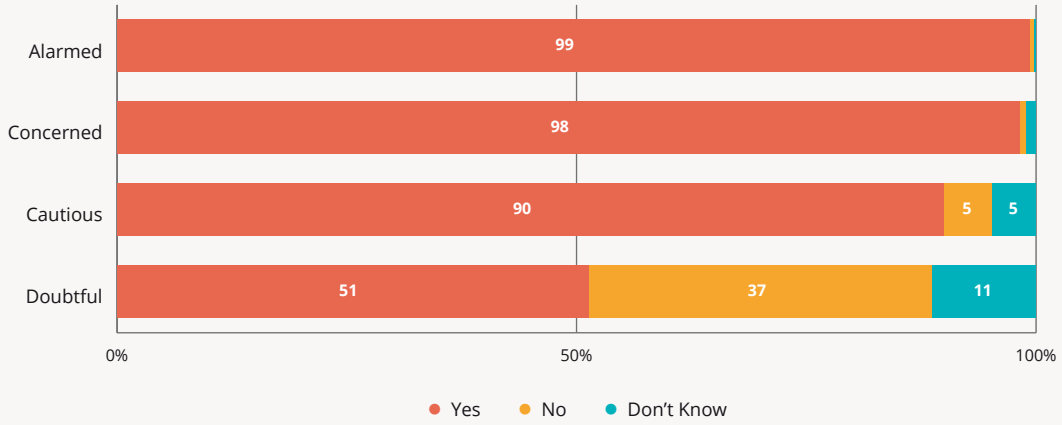
Graphs of each audience's responses to individual climate change belief questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

How much do you know about climate change? Would you say you know...

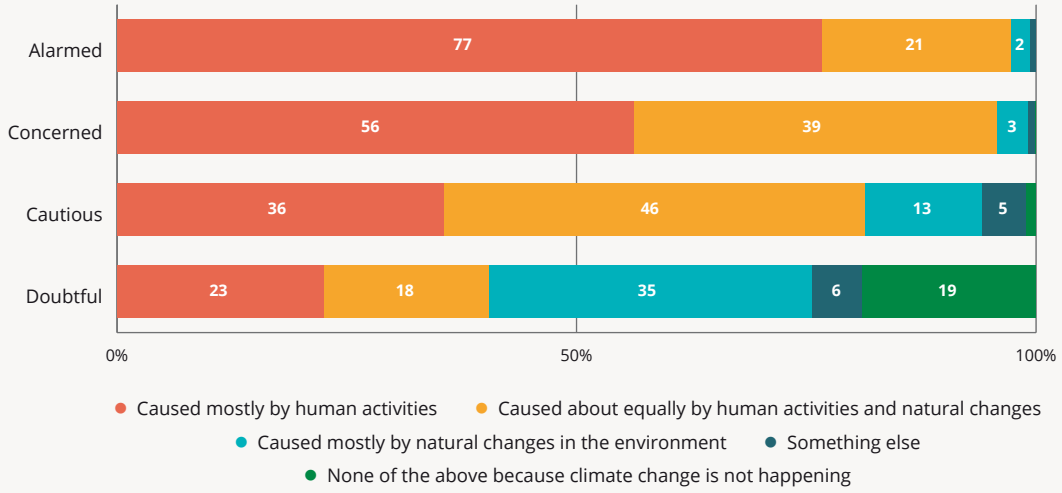


7 Leiserowitz A, Maibach E & Roser-Renouf C. (2008) *Global Warming's Six Americas: An Audience Segmentation*. New Haven, CT: Yale University.

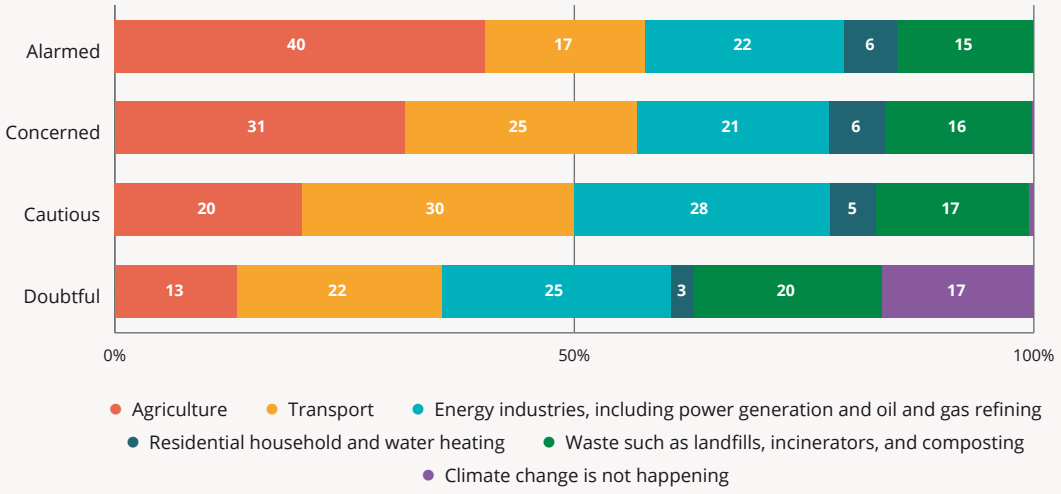
Do you think climate change is happening?



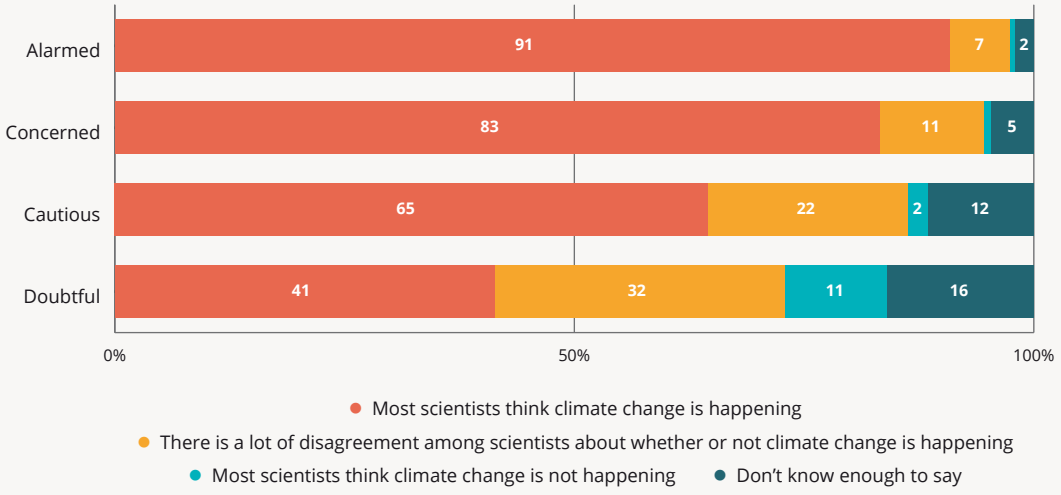
Assuming climate change is happening, do you think it is...



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.[8]



Which of the following statements comes closest to your own view?



8 The agriculture sector contributes to 35% of Ireland's total greenhouse gas emissions, followed by transportation at 20%, energy industries at 16%, the residential sector at 11%. The waste sector contributes less than 2% of Ireland's greenhouse gas emissions. https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/latest-emissions-data/#

6.1 The Alarmed:

The Alarmed are the segment most likely to say they know "a lot" (34%) or "a moderate amount" (54%) about climate change. They overwhelmingly think climate change is happening (99%) and most are "extremely" sure that it is (65%). About 9 in 10 (91%) say that "most scientists think climate change is happening." About three-quarters (77%) think climate change is caused mostly by human activities, while 21% think it is caused equally by human activities and natural changes. However, only 40% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 22% think it is energy industries.

6.2 The Concerned

The Concerned are most likely to say they know "a moderate amount" (58%) or "a little" (27%) about climate change. They overwhelmingly think climate change is happening (98%) and most are either "very" (49%) or "extremely" (32%) sure that it is. About 8 in 10 (83%) say that "most scientists think climate change is happening." A majority understand that climate change is caused "mostly by human activities" (56%), while 39% think it is caused equally by human activities and natural changes. However, only 31% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 25% think it is transport and 21% think it is energy industries.

6.3 The Cautious

The Cautious are most likely to say they only know "a little" (43%) or "a moderate amount" (42%) about climate change. They overwhelmingly think climate change is happening (90%) and most are either "very" (35%) or "somewhat" (30%) sure that it is. A large majority (65%) say that "most scientists think climate change is happening," but 22% believe that "there is a lot of disagreement among scientists." A large proportion think climate change is caused "equally by human activities and natural changes" (46%), while 36% understand that it is caused "mostly by human activities." However, only 20% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 30% think it is transport and 28% think it is energy industries.

6.4 The Doubtful

The Doubtful are the second most likely segment to say that they know "a lot" about climate change (26%), while 35% say they know a "moderate amount," and 32% say they know only "a little." About half think climate change is happening (51%), but 37% think it is "not happening," while 11% say they "don't know." Four in ten (41%) say that "most scientists think climate change is happening," but 32% believe that "there is a lot of disagreement among scientists," contrasted with 11% saying "most scientists think climate change is not happening," and 16% who "don't know enough to say." A little over a third think climate change is caused "mostly by natural changes in the environment" (35%), while 23% understand that it is caused "mostly by human activities." Only 13% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 25% think it is energy industries, 22% think it is transport, and 20% think it is waste such as landfills, incinerators, and composting.

7. Emotional Responses and Perceived Risks of Climate Change

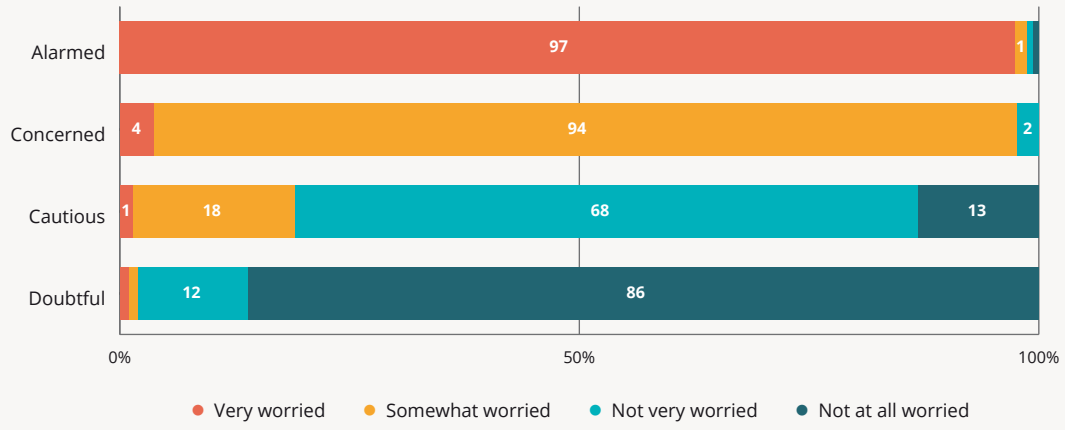
Respondents were asked about their general level of worry about climate change and the level of harm it presents to different groups, from close family, to more abstract groups like "people in Ireland," to those in other countries, and to animals and nature in general. Additionally, they were asked how worried they were about the impacts of different environmental hazards on their local environment.

The highest levels of worry about climate change are clustered in the Alarmed and Concerned audiences, with lower levels of concern about the potential harms or impacts among the Cautious and Doubtful audiences.

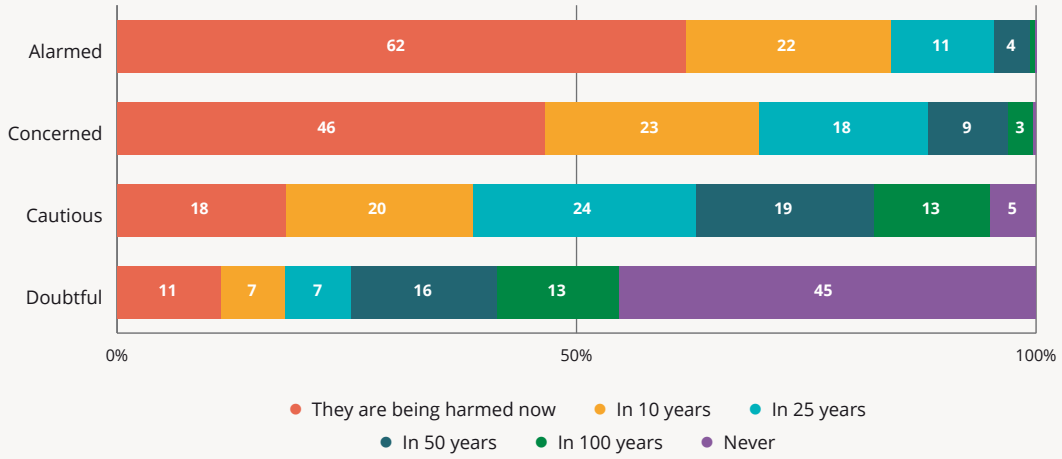
The majority of the Alarmed (62%) think that Irish people are being "harmed now" by climate change, compared to about half of the Concerned (46%) and a much smaller proportion of the Cautious (18%). A significant proportion of the Doubtful (45%) think climate change will "never" harm Irish people. These findings are consistent across questions for the Doubtful, who mostly do not see climate change as an urgent problem.

Graphs of each audience's responses to individual climate change worry and harm questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

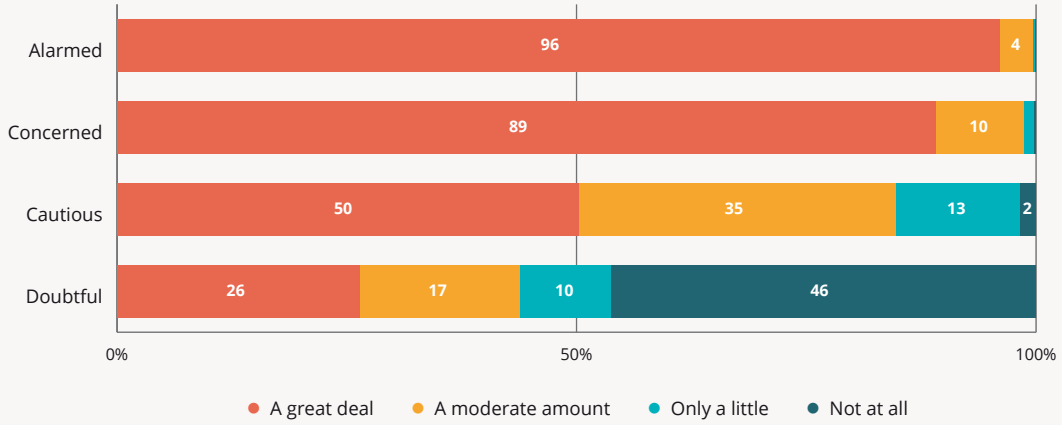
How worried are you about climate change?



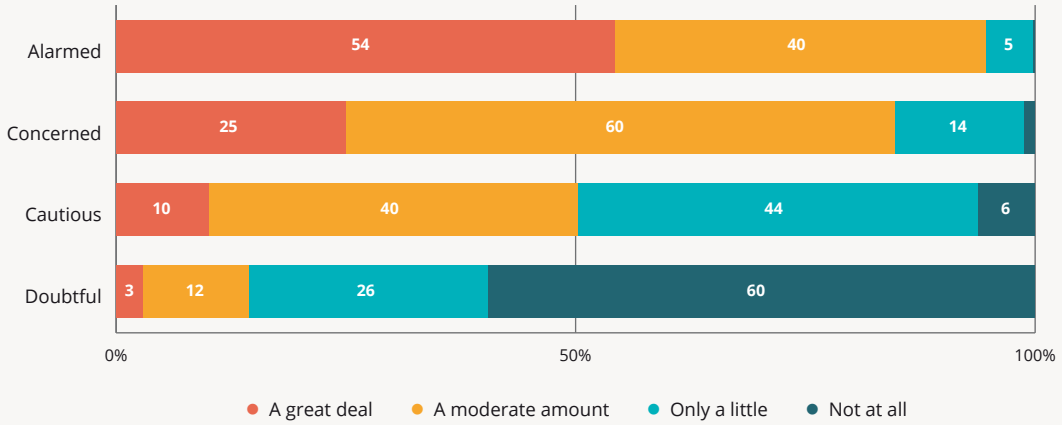
When do you think climate change will start to harm people in Ireland?



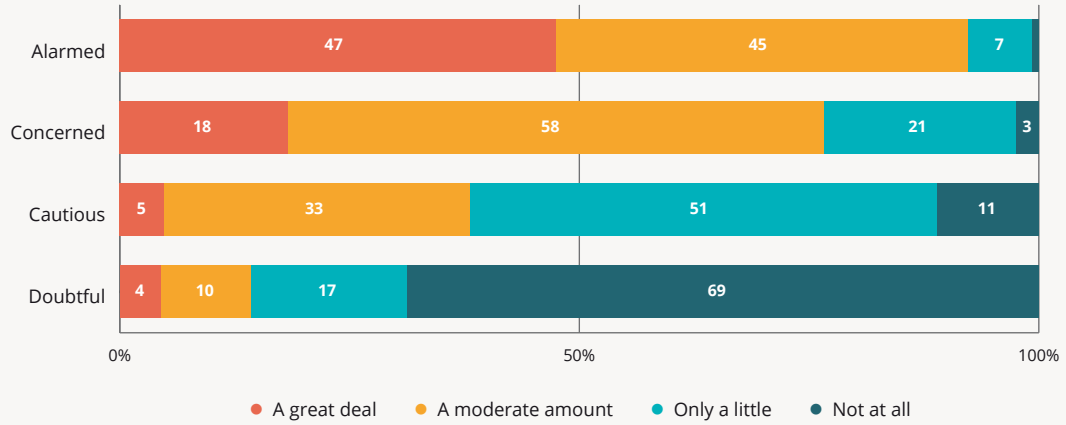
How much do you think climate change will harm...[Future Generations]



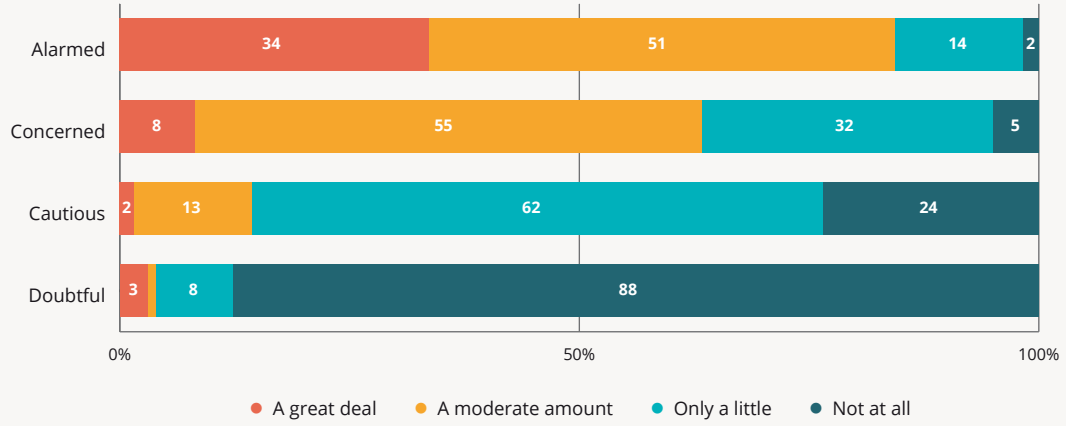
How much do you think climate change will harm...[People in Ireland]



How much do you think climate change will harm...[People in your community]



How much do you think climate change will harm...[You personally]



7.1 The Alarmed

The Alarmed are overwhelmingly "very worried" about climate change (97%). A majority (62%) think that climate change is already harming people in Ireland now, while 22% think it will start harming people in Ireland in the next 10 years. Nearly all of the Alarmed think climate change will harm future generations (96%) "a great deal." About half think climate change will harm people in Ireland (54%) or people in their community (47%) "a great deal," while 34% think climate change will harm them personally "a great deal."

7.2 The Concerned

The Concerned are mostly "somewhat worried" about climate change (94%), while only 4% are "very worried." A little under half (46%) think climate change is already harming people in Ireland now, while 23% think it will start harming people in Ireland in the next 10 years. The Concerned think climate change will harm future generations (89%) "a great deal." Relatively few think climate change will harm people in Ireland (25%), people in their community (18%), or themselves personally (8%) "a great deal."

7.3 The Cautious

The Cautious are mostly "not very worried" about climate change (68%), while 18% are "somewhat worried." Most of the Cautious think climate change will harm people in Ireland in either 10 years (20%), 25 years (24%), or 50 years (19%). About half think climate change will harm future generations (50%) "a great deal." Relatively few think climate change will harm people in Ireland (10%), people in their community (5%), or themselves personally (2%) "a great deal."

7.4 The Doubtful

The Doubtful are mostly "not at all worried" about climate change (86%), while 12% are "not very worried." The Doubtful think climate change will harm people in Ireland either "never" (45%), in 100 years (13%), or in 50 years (16%). Only about a quarter think climate change will harm future generations (26%) "a great deal." Very few think climate change will harm people in Ireland (3%), people in their community (4%), or themselves personally (3%) "a great deal."

8. Personal and Social Engagement with Climate Change

Respondents were asked about their personal engagement with climate change (how important it is to them personally and how frequently they access content about it in the media), as well as their level of trust for a variety of people and organisations as a source of information about climate change.

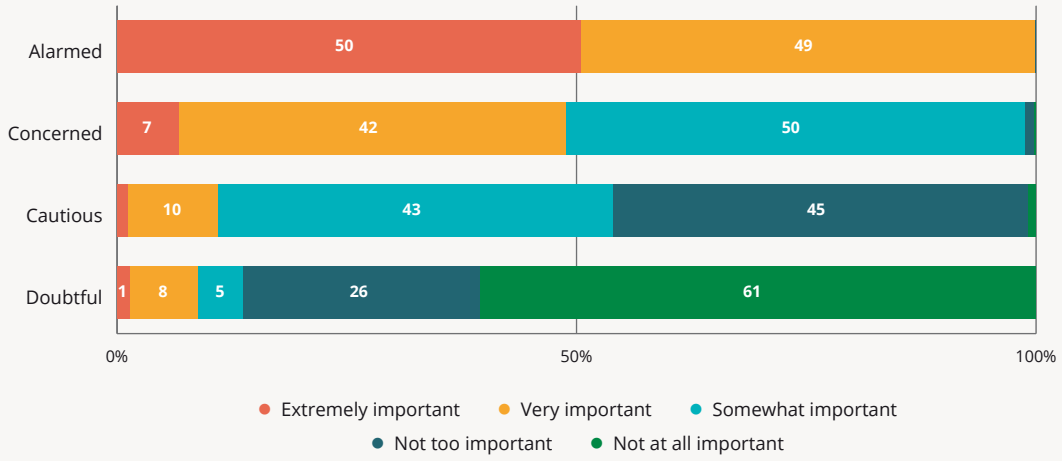
There were large differences between audiences on the personal importance of climate change. Almost all (99%) of the Alarmed reported that climate change was "very/extremely important," compared to about half (49%) of the Concerned. Much smaller proportions of the Cautious (11%) and Doubtful (9%) reported that climate change was "very/extremely" personally important to them.

About 60% of the Alarmed, and about half of the Concerned, Cautious and Doubtful audiences hear about climate change in the media at least once a week. In terms of media sources, the Cautious and Doubtful are more likely to say they 'never' watch, listen to, or read content via social media and streaming services than the Alarmed and Concerned. The Cautious and Doubtful are most likely to be reached on national or local media.

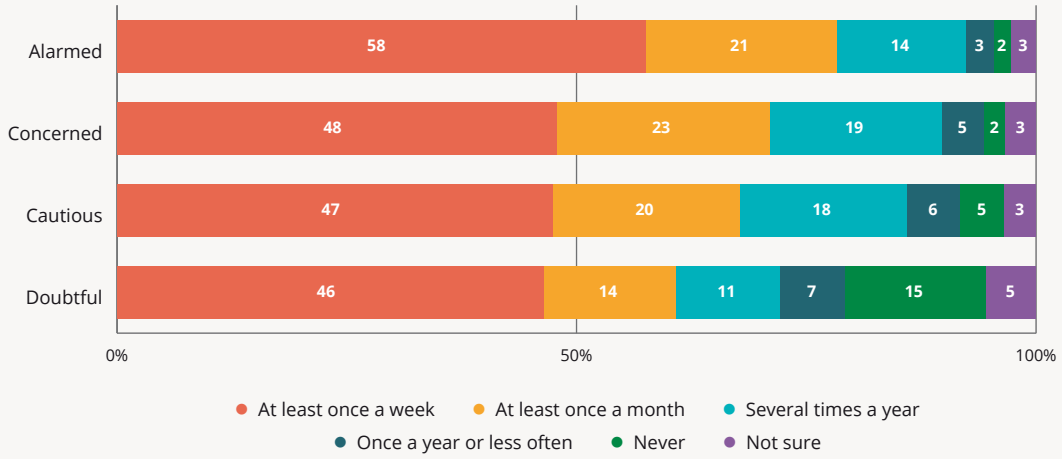
The highest levels of trust are reported for climate change messaging from friends and family, educators, scientists, the EPA, and TV weather reporters, with about 80% of the Alarmed, Concerned and Cautious audiences expressing higher levels of trust for these figures, and about 50% of the Doubtful expressing higher levels of trust. This is important given that nearly four in ten (37%) of the Doubtful do not think that climate change is occurring in the first place. Online influencers, celebrities, or media personalities are not considered highly trusted sources of information, with only about a quarter of all audiences "somewhat" or "strongly" trusting these figures.

Graphs of each audience's responses to individual personal and social engagement questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

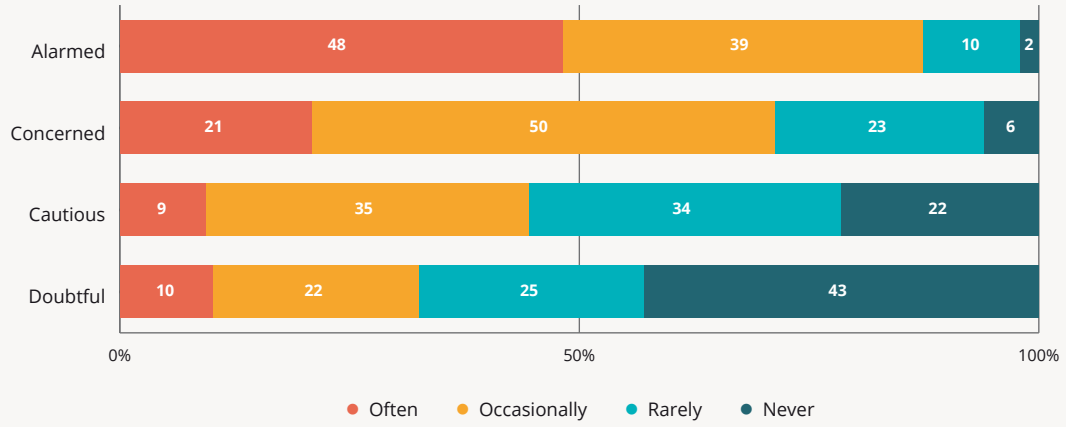
How important is the issue of climate change to you personally?



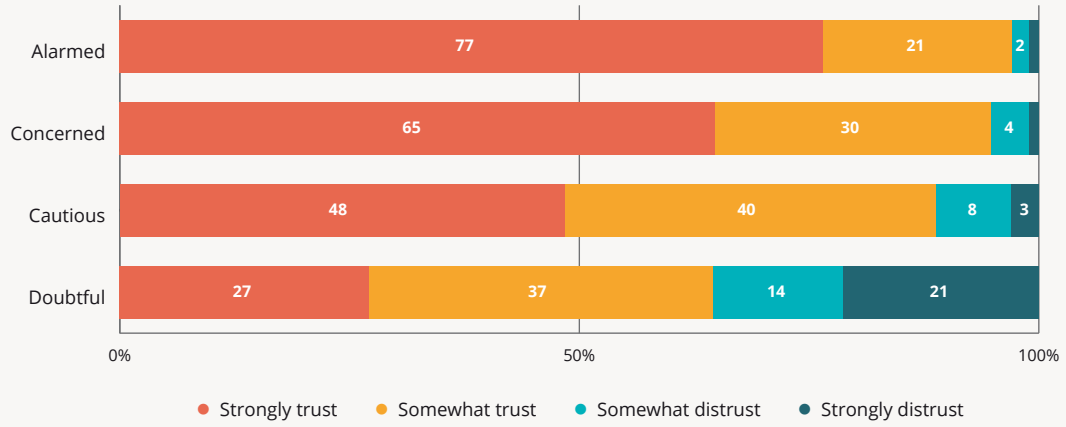
About how often do you hear about climate change in the media, such as TV, movies, radio, newspapers, magazines, online, etc.?



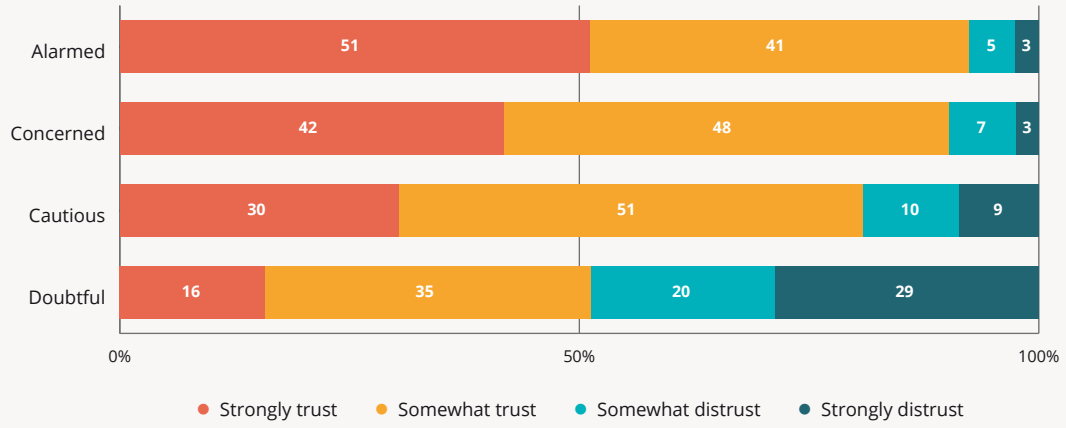
How often do you discuss climate change with your family and friends?



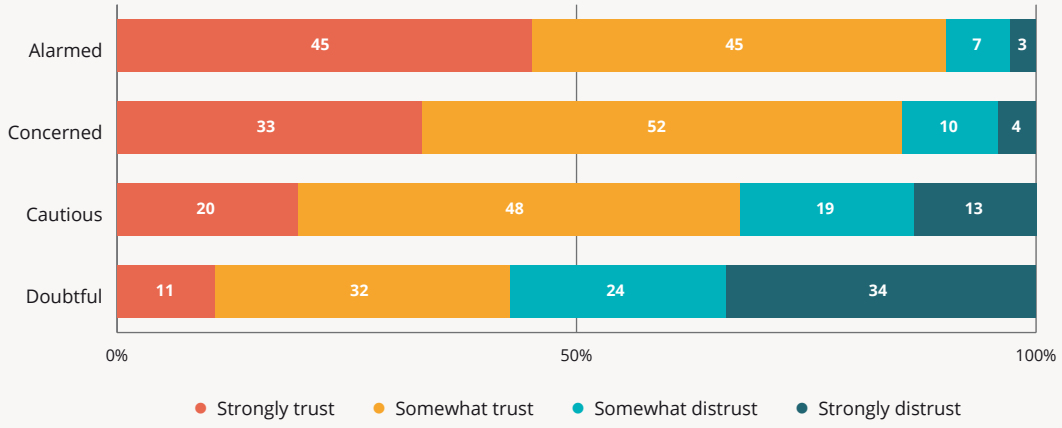
How much do you trust or distrust the following as a source of information about climate change?...[Scientists]



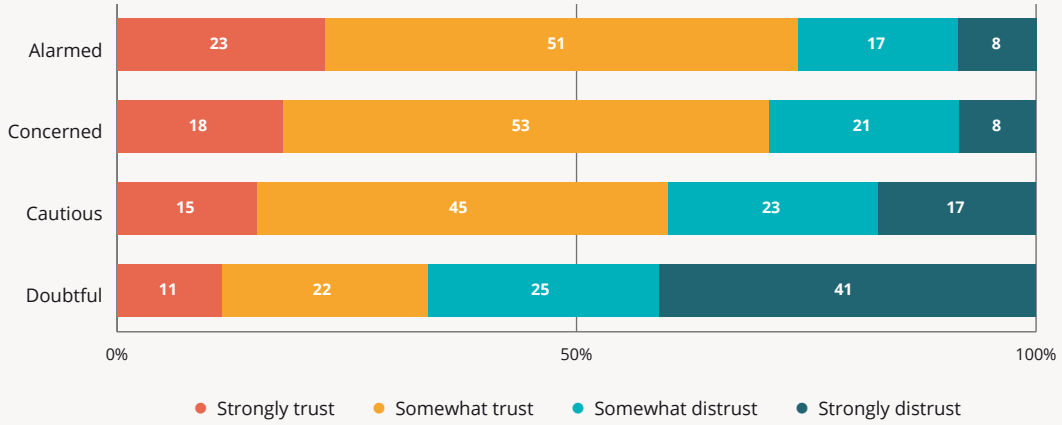
How much do you trust or distrust the following as a source of information about climate change?...[The Irish Environmental Protection Agency (EPA)]



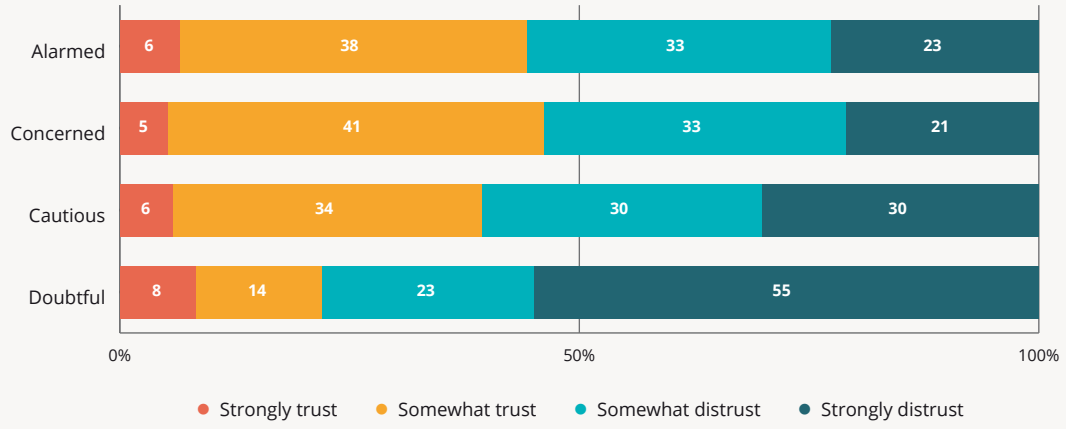
How much do you trust or distrust the following as a source of information about climate change?...[Environmental NGOs]



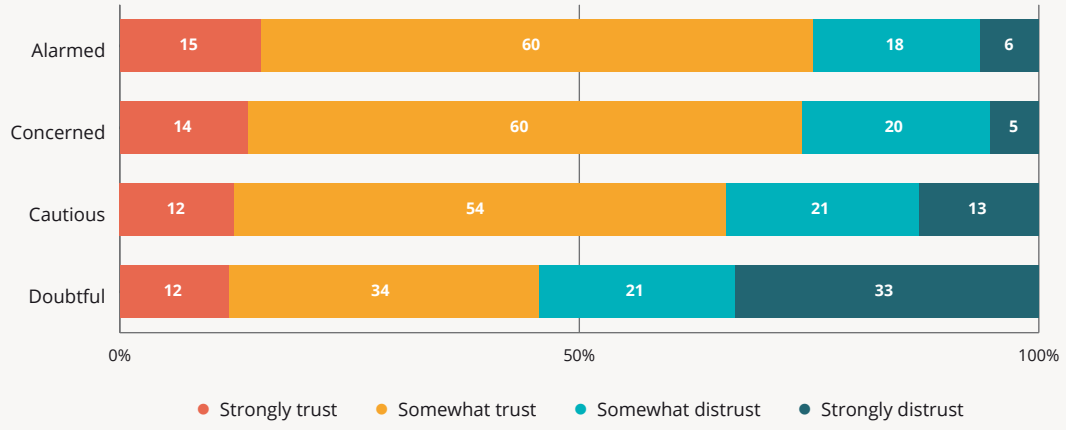
How much do you trust or distrust the following as a source of information about climate change?...[The mainstream news media]



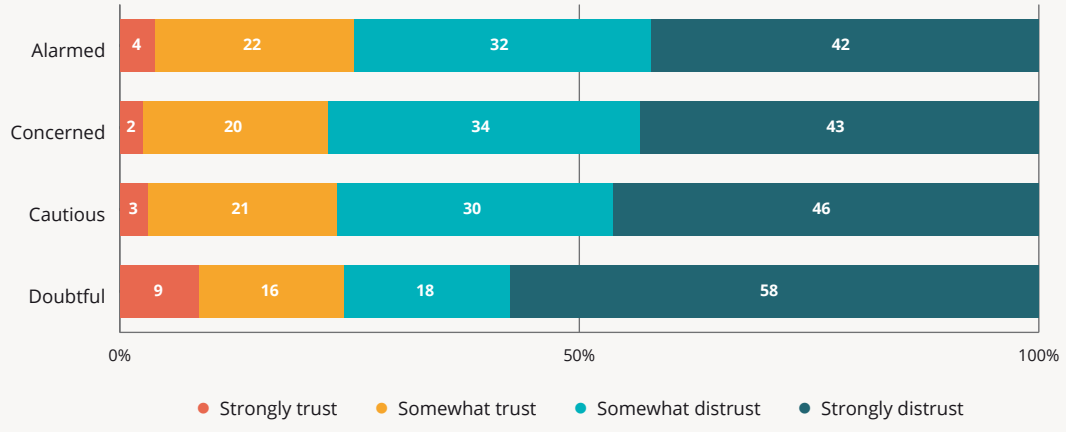
How much do you trust or distrust the following as a source of information about climate change?...[Political leaders]



How much do you trust or distrust the following as a source of information about climate change?...[Community leaders]



How much do you trust or distrust the following as a source of information about climate change?...[Online influencers, celebrities, or media personalities]



8.1 The Alarmed

The Alarmed overwhelmingly say that climate change is either "extremely" (50%) or "very important" (49%) to them personally. A majority say they hear about climate change in the media at least "once a week" (58%) or "once a month" (21%). Likewise, a majority say they discuss climate change with their family and friends "often" (48%) or "occasionally" (39%). The Alarmed say they "strongly trust" scientists (77%), the Irish EPA (51%), educators (45%), environmental NGOs (45%), TV weather reporters (37%), their own friends and family (28%), the mainstream news media (23%), journalists (17%), community leaders (15%), religious leaders (8%), political leaders (6%), online celebrities (4%), and corporations (4%) as sources of information about climate change.

8.2 The Concerned

The Concerned mostly say that climate change is either "very" (42%) or "somewhat important" (50%) to them personally. A majority say they hear about climate change in the media at least "once a week" (48%) or "once a month" (23%). Likewise, a majority say they discuss climate change with their family and friends either "often" (21%) or "occasionally" (50%). The Concerned say they "strongly trust" scientists (65%), the Irish EPA (42%), educators (36%), environmental NGOs (33%), TV weather reporters (32%), their own friends and family (24%), the mainstream news media (18%), community leaders (14%), journalists (12%), religious leaders (6%), political leaders (5%), corporations (4%), and online celebrities (2%) as sources of information about climate change.

8.3 The Cautious

The Cautious mostly say that climate change is either "somewhat" (43%) or "not too important" (45%) to them personally. A majority say they hear about climate change in the media at least "once a week" (47%) or "once a month" (20%). However, a majority also say they discuss climate change with their family and friends only "occasionally" (35%), "rarely" (34%), or "never" (22%). The Cautious "strongly trust" scientists (48%), the Irish EPA (30%), educators (30%), TV weather reporters (26%), their own friends and family (24%), environmental NGOs (20%), the mainstream news media (15%), community leaders (12%), journalists (9%), religious leaders (7%), political leaders (6%), corporations (5%), and online celebrities (3%) as sources of information about climate change.

8.4 The Doubtful

The Doubtful mostly say climate change is either "not too important" (26%) or "not at all important" (61%) to them personally. A majority say they hear about climate change in the media at least "once a week" (46%) or "once a month" (14%). However, a majority also say they discuss climate change with their family and friends only "occasionally" (22%), "rarely" (25%), or "never" (43%). The Doubtful "strongly trust" scientists (27%), their own friends and family (24%), educators (21%), the Irish EPA (16%), TV weather reporters (13%), community leaders (12%), religious leaders (12%), environmental NGOs (11%), the mainstream news media (11%), journalists (11%), corporations (11%), online celebrities (9%), and political leaders (8%) as sources of information about climate change.

9. Impacts of Climate Change

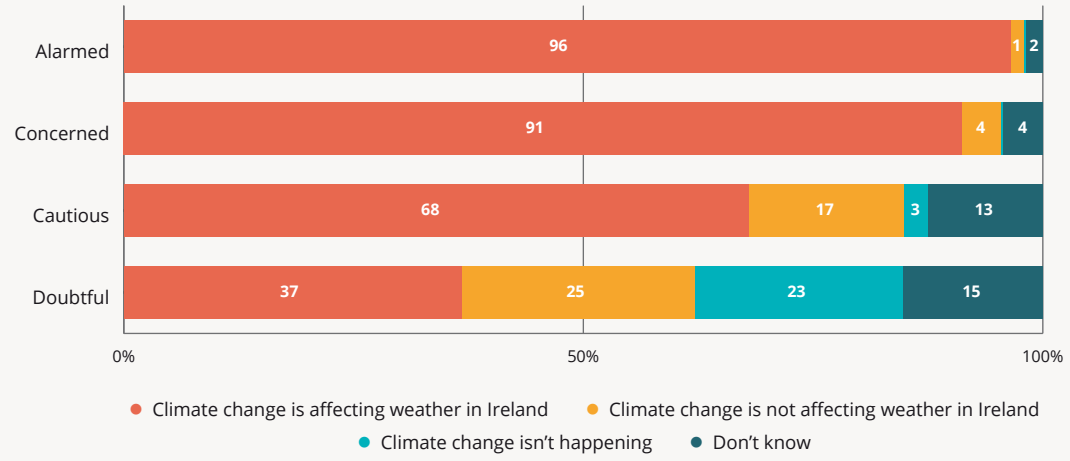
Respondents were asked whether they believed climate change is currently affecting Irish weather and to indicate how worried they are about potential environmental hazards they thought might harm their local area.

Overall, a large proportion of the population (88%) believe that climate change is already impacting Ireland, with the greatest concerns about water pollution (81%), air pollution (70%) and severe storms (64%).

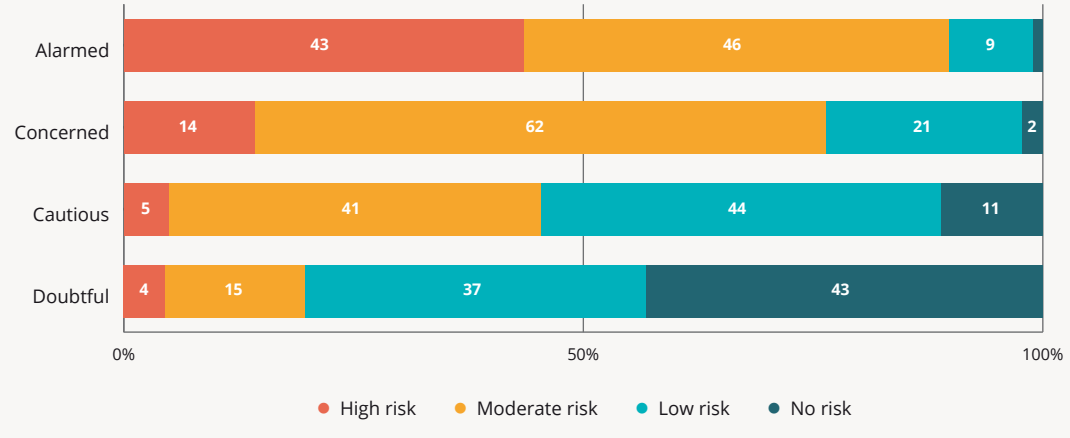
The Alarmed perceive relatively high and imminent risks to their local communities, while the Concerned and Cautious follow with moderately lower levels of concern. The Doubtful express relatively little concern for the impact of any of the environmental hazards.

Graphs of each audience's responses to individual impacts of climate change questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

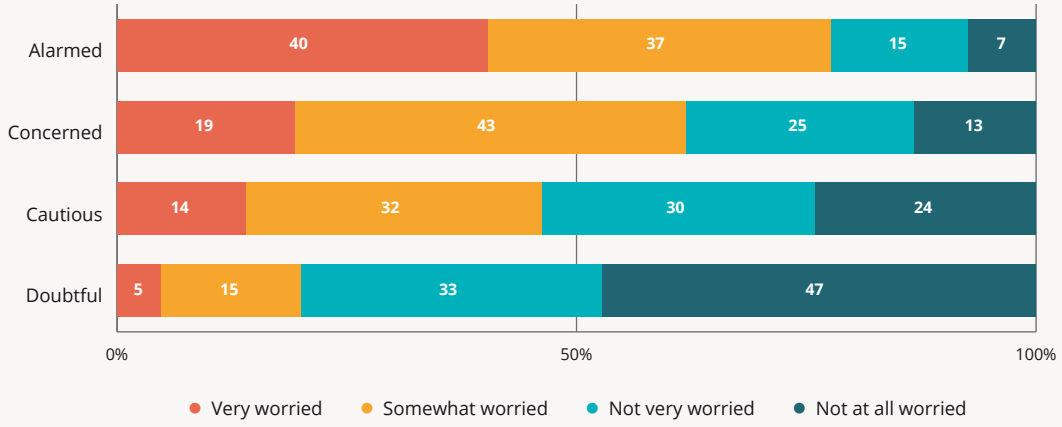
Which of the following statements best reflects your view?



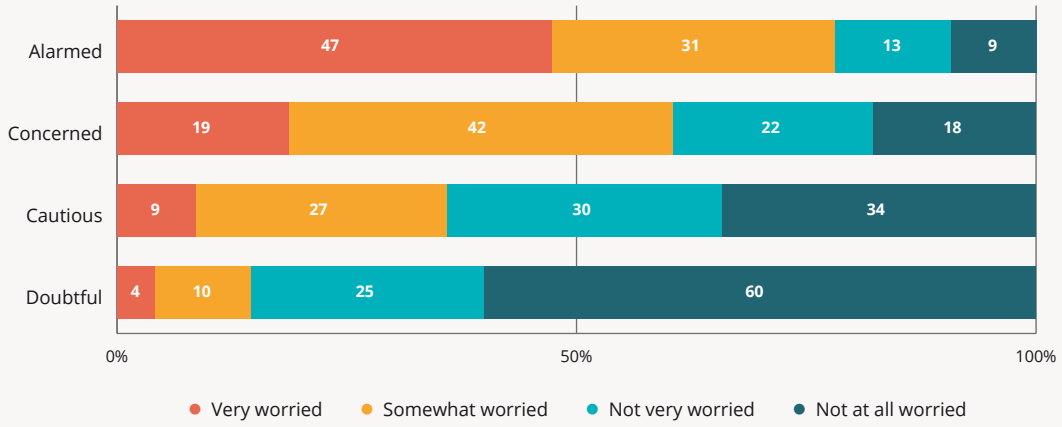
In your opinion, over the next 10 years how much risk does extreme weather pose to your community?



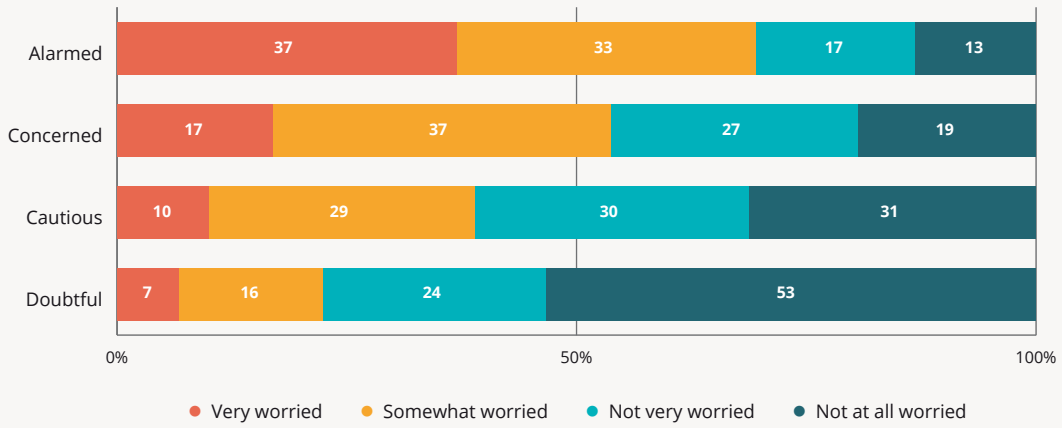
How worried are you that the following might harm your local area?...[Severe storms]



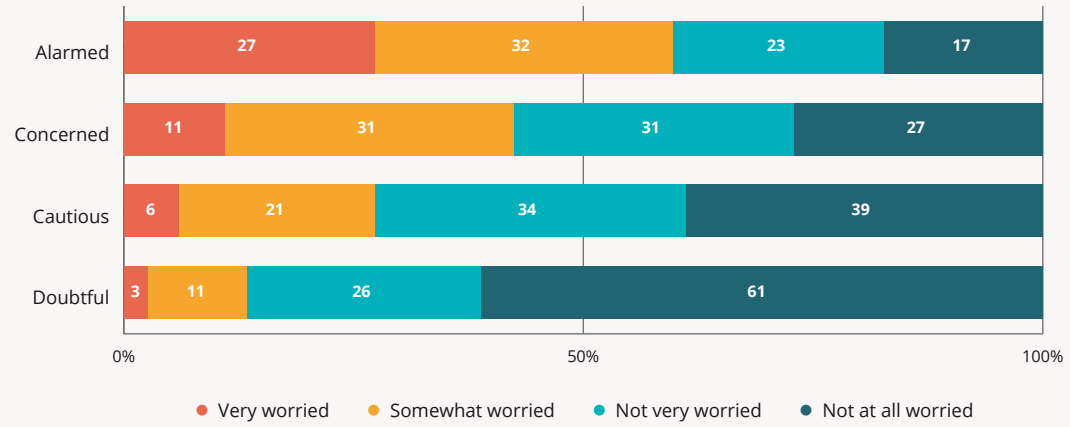
How worried are you that the following might harm your local area?...[Rising sea levels]



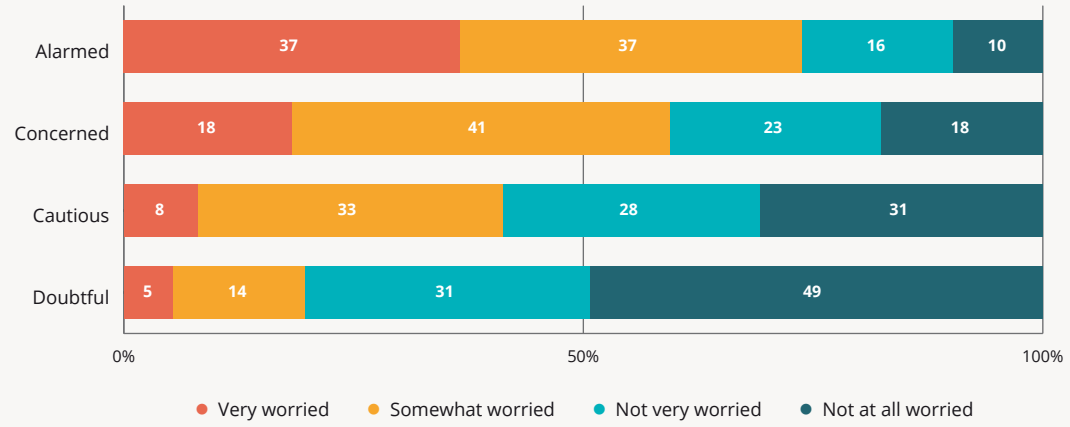
How worried are you that the following might harm your local area?...[Flooding]



How worried are you that the following might harm your local area?...[Droughts]



How worried are you that the following might harm your local area?...[Water shortages]



9.1 The Alarmed

The Alarmed overwhelmingly believe that climate change is affecting the weather in Ireland (96%) and that over the next 10 years, extreme weather will pose either a "high risk" (43%) or "moderate risk" (46%) to their own communities. A majority of the Alarmed are worried that severe storms (78%), rising sea levels (78%), water shortages (74%), flooding (70%), or droughts (60%) might harm their local areas.

9.2 The Concerned

The Concerned overwhelmingly believe that climate change is affecting the weather in Ireland (91%) but say that over the next 10 years, extreme weather will pose only a "moderate risk" (62%) or "low risk" (21%) to their own communities. The Concerned are worried that severe storms (60%), rising sea levels (61%), water shortages (59%), flooding (54%), or droughts (42%) might harm their local areas.

9.3 The Cautious

The Cautious believe that climate change is affecting the weather in Ireland (68%) but say that over the next 10 years, extreme weather will pose only a "low" (44%) or "moderate risk" (41%) to their own communities. The Cautious are worried that severe storms (46%), water shortages (41%), flooding (39%), rising sea levels (36%), or droughts (27%) might harm their local areas.

9.4 The Doubtful

Relatively few of the Doubtful believe that climate change is affecting the weather in Ireland (37%), and they say that over the next 10 years, extreme weather will pose only a "low" (37%) or "no risk" (43%) to their own communities. Relatively few of the Doubtful are worried that flooding (22%), severe storms (20%), water shortages (20%), rising sea levels (15%), or droughts (13%) might harm their local areas.

10. Climate Policies

In line with their different beliefs about whether climate change is real and a serious threat, the audiences express differing levels of support for national policies aimed at addressing the issue. Broadly, those who view climate change as the gravest and most immediate threat are the most willing to support a range of preventative and adaptive climate policies.

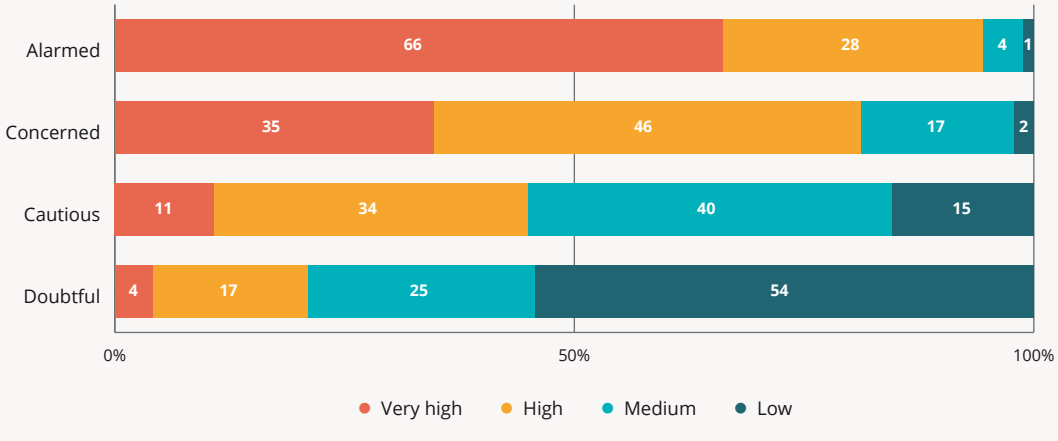
The Alarmed (96%), Concerned (92%), and Cautious (77%) audiences express strong levels of support for climate change adaptation policies and greenhouse gas emission reduction. Most in these groups do *not* think that climate change is too large a problem for Ireland's contributions to matter.

Differing levels of support for specific policies highlights the different priorities of the four climate audiences. Where policies are framed as an outright ban (e.g. banning sale of peat, coal, or oil), opposition increases across the audiences, with the strongest opposition among the Concerned (12%), Cautious (28%), and the Doubtful (50%) to such bans.

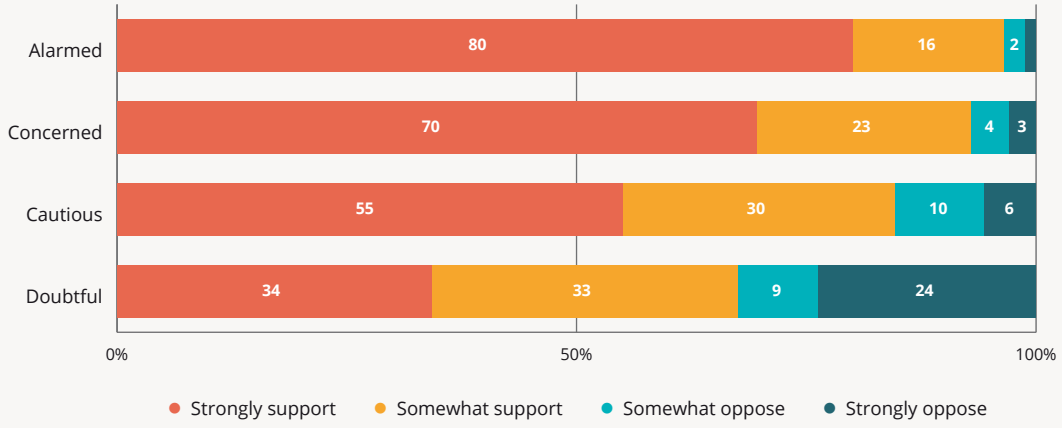
In contrast, policies framed as redistributive (e.g., energy efficiency grants or a carbon tax aimed at reducing inequality) receive strong support from all audiences, not just those with high climate concerns.

Graphs of each audience's responses to individual climate policy questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

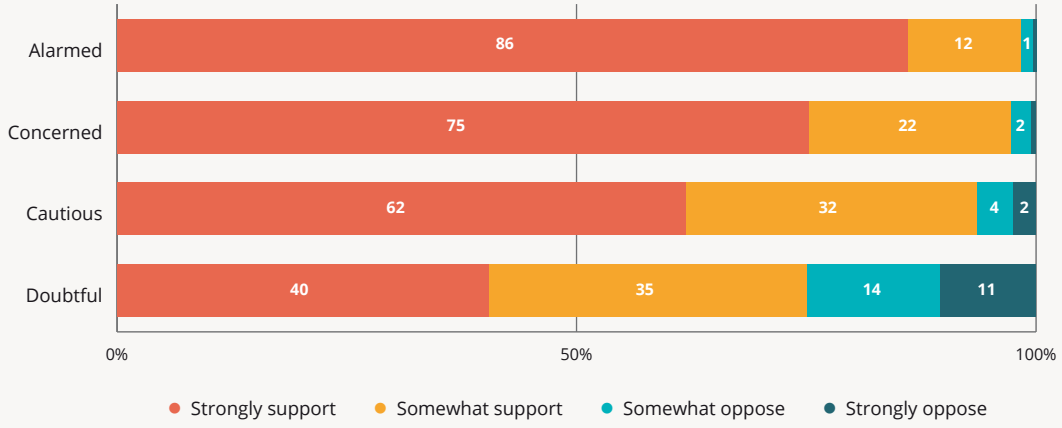
Do you think climate change should be a very high, high, medium, or low priority for the Government of Ireland?



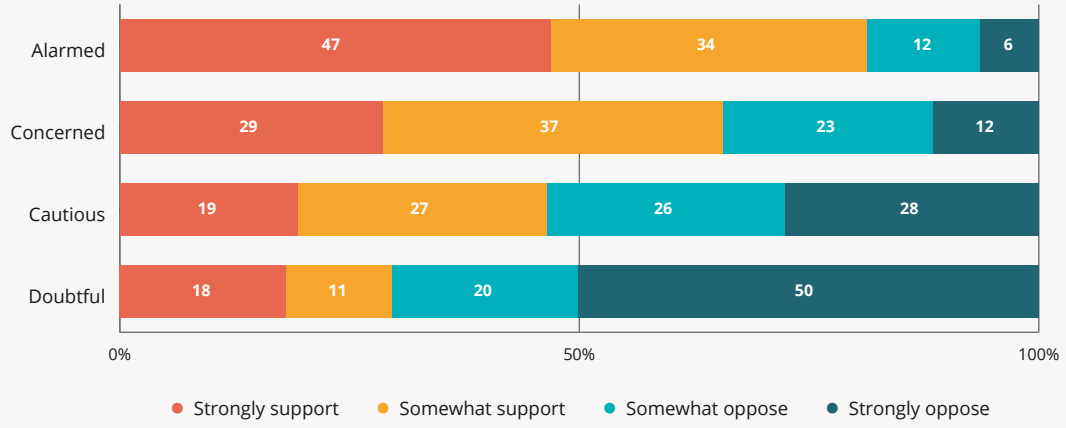
How much do you support or oppose the following policies to help Ireland achieve its greenhouse gas reduction targets?...
[Government grants to make electric vehicles more affordable]



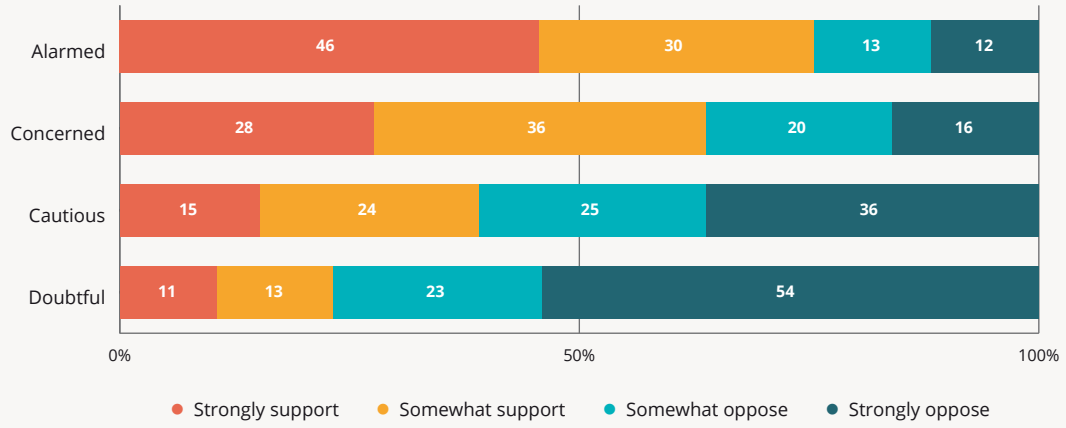
How much do you support or oppose the following policies to help Ireland achieve its greenhouse gas reduction targets?...
[Government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems]



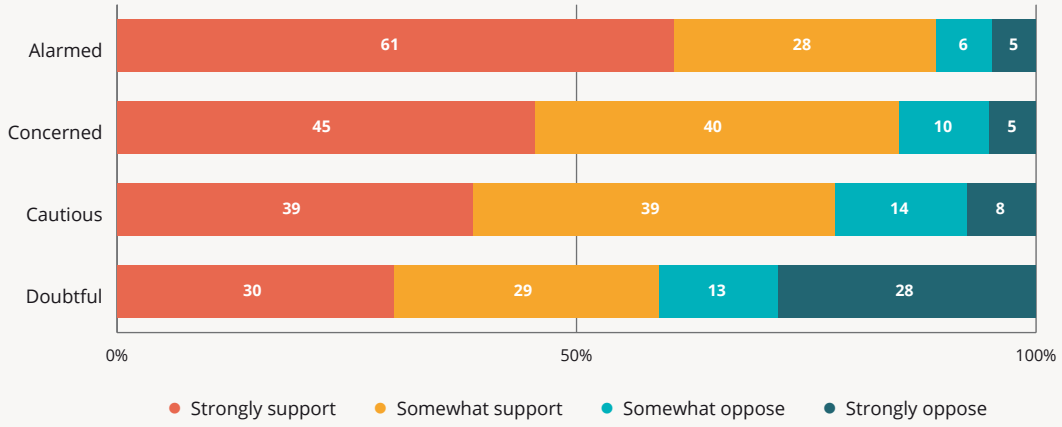
How much do you support or oppose the following policies to help Ireland achieve its greenhouse gas reduction targets?...
[Banning peat, coal and oil for home heating purposes]



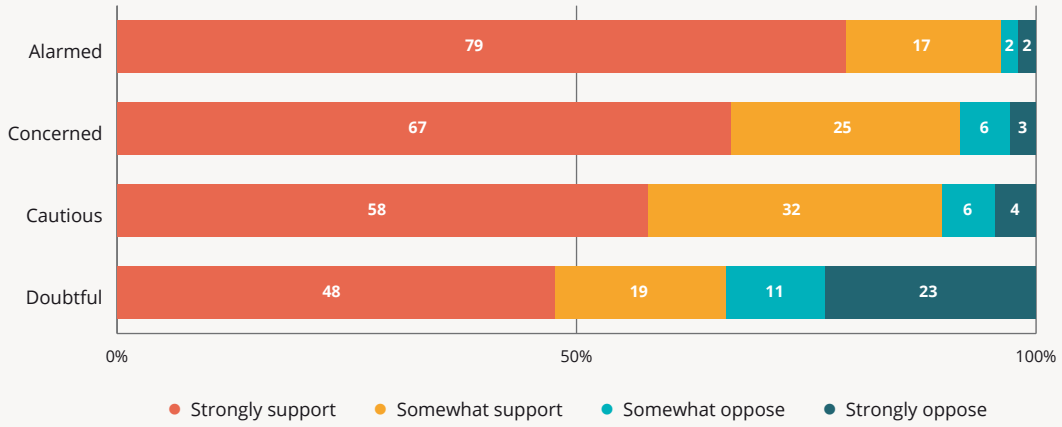
How much do you support or oppose the following policies to help Ireland achieve its greenhouse gas reduction targets?...
[Higher taxes on cars that use petrol and diesel]



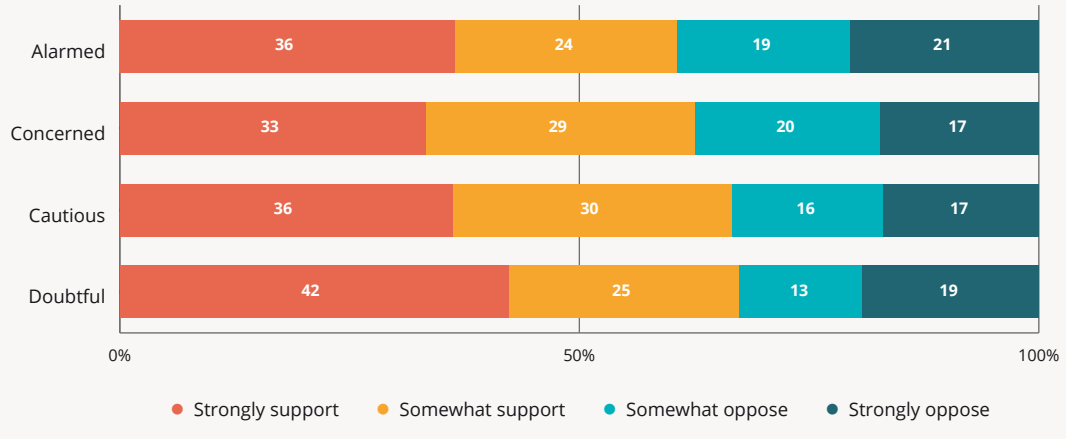
How much would you support or oppose building new infrastructure such as pylons or substations in your local area to support the increased use of renewable energy?



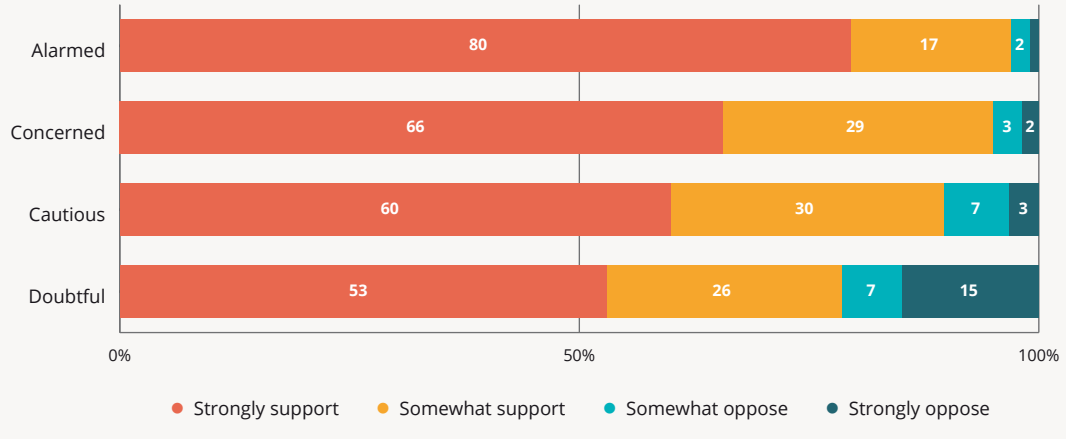
How much do you support or oppose the following policies?... **[Increasing forest areas in your locality to offset greenhouse gas emissions from agriculture]**



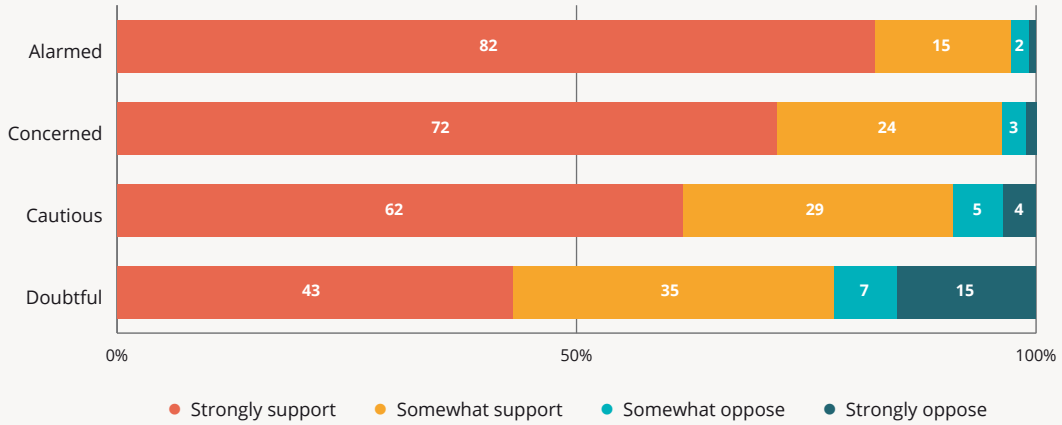
To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?...
[Returning the money to all Irish households in equal amounts]



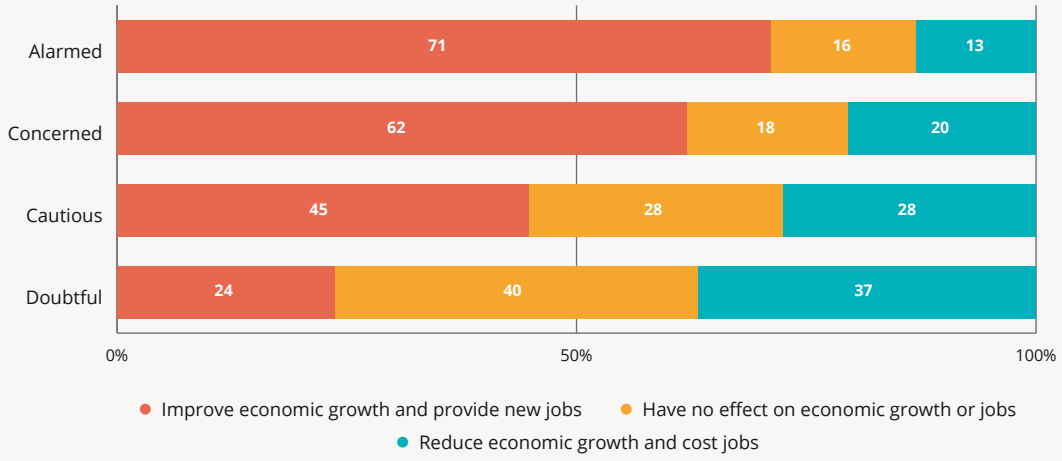
To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?...
[Helping pay for energy efficiency improvements in low-income households]



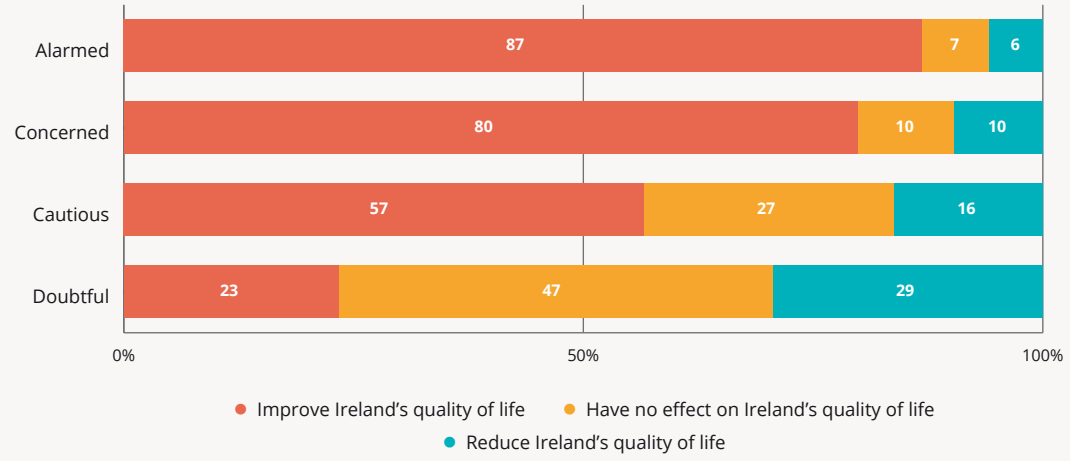
To help address climate change, taxes on fossil fuels will be rising in Ireland over the next 10 years. How much do you support or oppose using the revenues from these taxes for each of the following purposes?...
[Supporting the further development of new clean energy sources such as marine and hydrogen power]



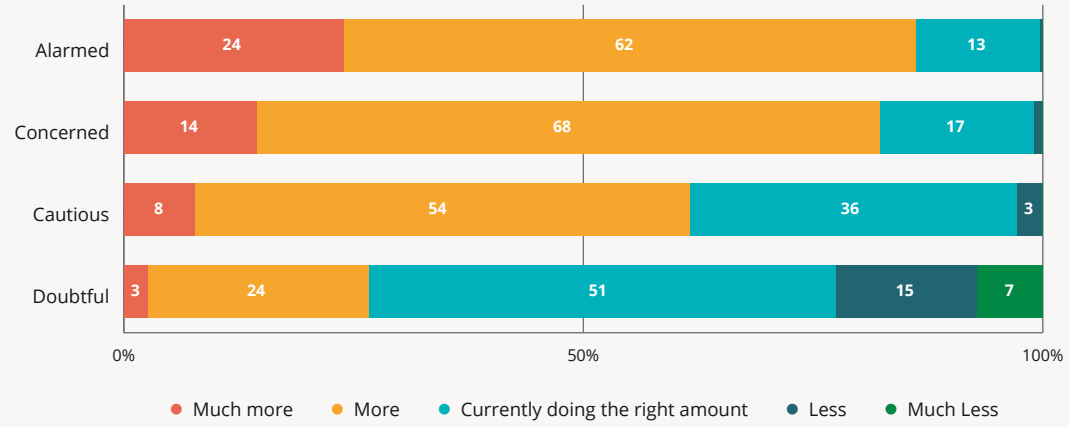
Overall, do you think that taking action to reduce climate change will...



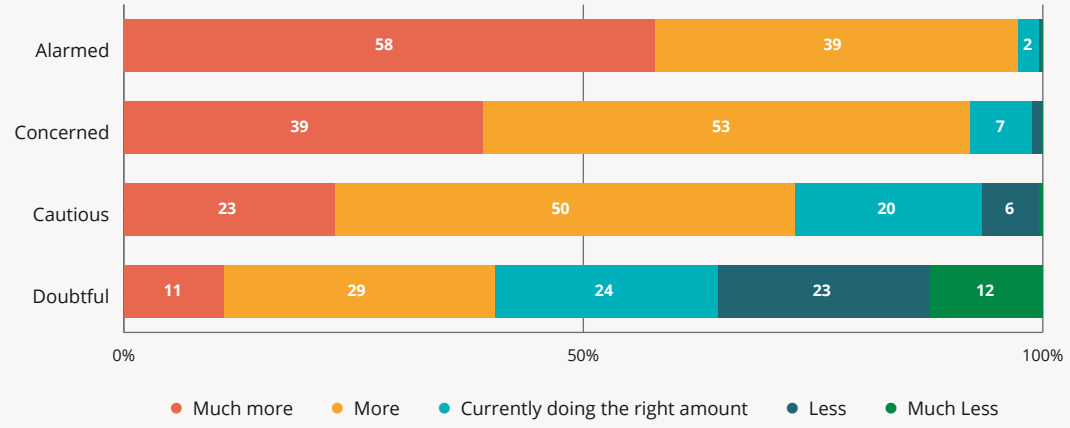
Overall, do you think that taking action to reduce climate change will...



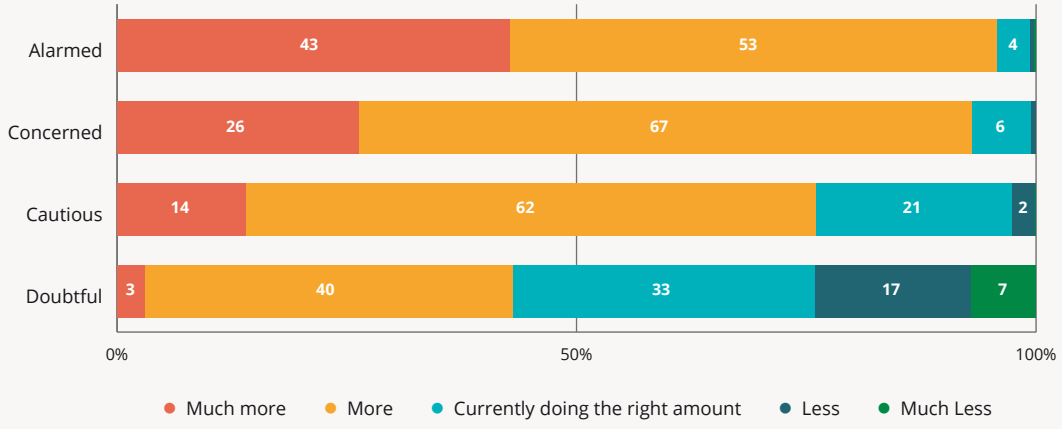
Do you think each of the following should be doing more or less to address climate change?...[You personally]



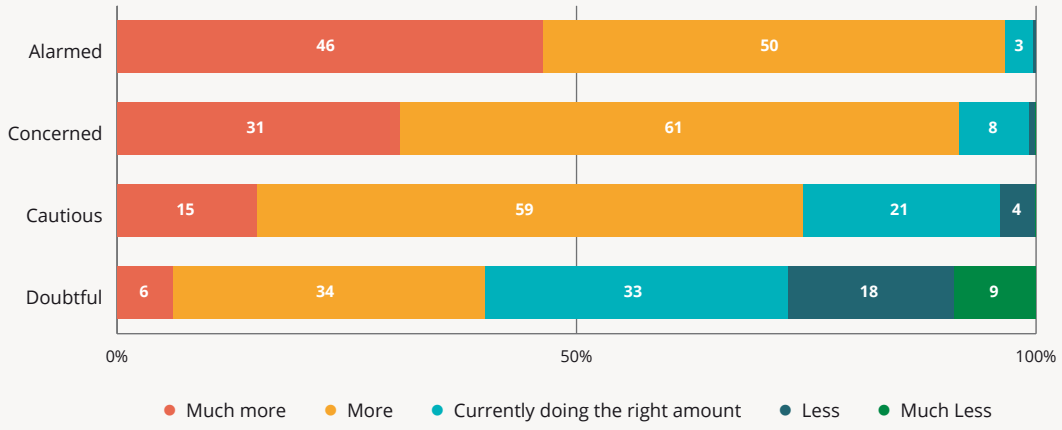
Do you think each of the following should be doing more or less to address climate change?...[Government]



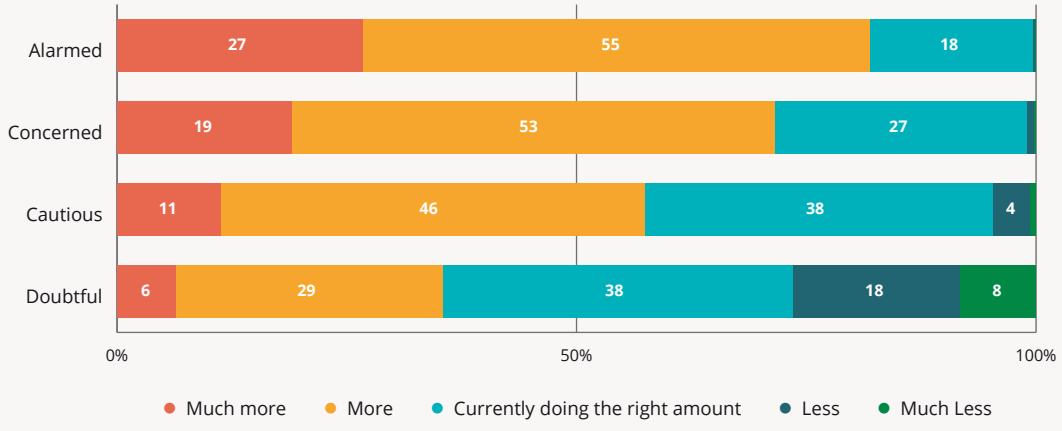
Do you think each of the following should be doing more or less to address climate change?...[Citizens]



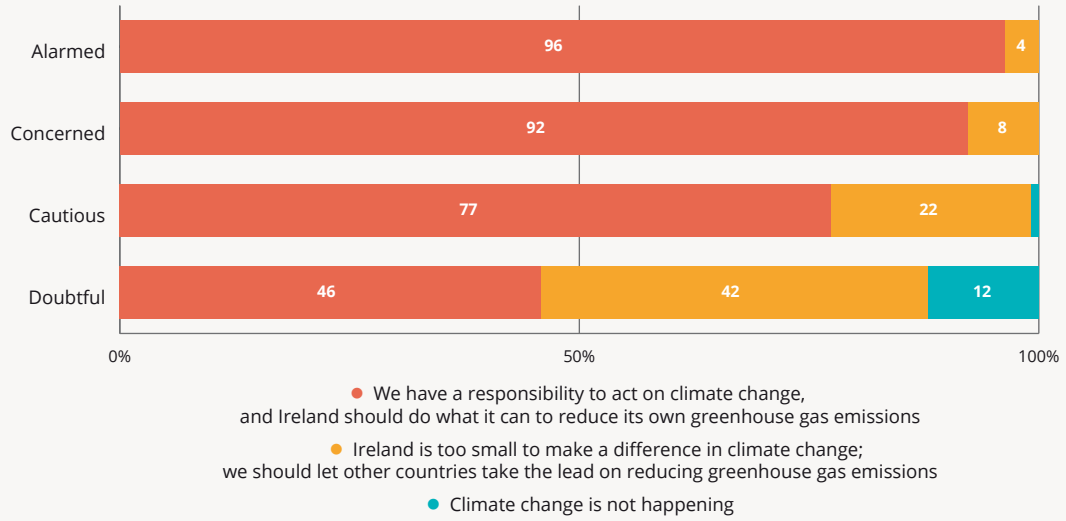
Do you think each of the following should be doing more or less to address climate change?...[Businesses]



Do you think each of the following should be doing more or less to address climate change?...[EPA]



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



10.1 The Alarmed

The Alarmed overwhelmingly think that climate change should be a "very high" (66%) or "high" (28%) priority for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (98%) and to make electric vehicles more affordable (97%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (96%), building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (89%), banning peat, coal, and oil for home heating purposes (81%), and higher taxes on cars that use petrol and diesel (75%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (97%), "helping pay for energy efficiency improvements in low-income households" (97%), and "returning the money to all Irish households in equal amounts" (61%).

Most of the Alarmed think taking action to reduce climate change will either "improve economic growth and provide new jobs" (71%) or "have no effect on economic growth or jobs" (16%). Likewise, a large majority think taking action to reduce climate change will either "improve Ireland's quality of life" (87%) or "have no effect" (7%).

Large majorities of the Alarmed think a number of actors should be doing more to address climate change, including the Government (97%), businesses (97%), citizens (96%), themselves personally (86%), and the Irish EPA (82%). They also overwhelmingly say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (96%).

10.2 The Concerned

The Concerned think climate change should be a "very high" (35%) or "high" (46%) priority for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (97%) and to make electric vehicles more affordable (93%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (92%), building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (85%), banning peat, coal, and oil for home heating purposes (66%), and higher taxes on cars that use petrol and diesel (64%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (96%), "helping pay for energy efficiency improvements in low-income households" (95%), and "returning the money to all Irish households in equal amounts" (63%).

Most of the Concerned think taking action to reduce climate change will either "improve economic growth and provide new jobs" (62%) or "have no effect on economic growth or jobs" (18%). Likewise, a large majority think that taking action to reduce climate change will either "improve Ireland's quality of life" (80%) or "have no effect" (10%).

Large majorities of the Concerned think a number of actors should be doing more to address climate change, including the Government (92%), citizens (93%), businesses (92%), themselves personally (82%), and the Irish EPA (72%). They also overwhelmingly say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (92%).

10.3 The Cautious

The Cautious think climate change should be a "very high" (11%), "high" (34%), or "medium priority" (40%) for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (93%) and to make electric vehicles more affordable (85%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (90%) and building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (78%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (91%), "helping pay for energy efficiency improvements in low-income households" (90%), and "returning the money to all Irish households in equal amounts" (67%). A majority *oppose* the banning of peat, coal, and oil for home heating purposes (54%) and higher taxes on cars that use petrol and diesel (61%).

A majority of the Cautious think taking action to reduce climate change will either "improve economic growth and provide new jobs" (45%) or "have no effect on economic growth or jobs" (28%). Likewise, a large majority think taking action to reduce climate change will either "improve Ireland's quality of life" (57%) or "have no effect" (27%).

Most of the Cautious think most sectors of society should be doing more to address climate change, including citizens (76%), businesses (75%), the Government (73%), themselves personally (62%), and the Irish EPA (57%). They also say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (77%).

10.4 The Doubtful

The Doubtful think climate change should be a "low" (54%) or "medium priority" (25%) for the Government of Ireland. They also either "strongly support" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (75%) and to make electric vehicles more affordable (68%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (66%) and building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (59%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (78%), "helping pay for energy efficiency improvements in low-income households" (79%), and "returning the money to all Irish households in equal amounts" (67%). A majority *oppose* the banning of peat, coal, and oil for home heating purposes (70%) and higher taxes on cars that use petrol and diesel (77%).

Most of the Doubtful think taking action to reduce climate change will either "reduce economic growth and cost jobs" (37%) or "have no effect on economic growth or jobs" (40%). Likewise, a majority think that taking action to reduce climate change will either "Reduce Ireland's quality of life" (29%) or "have no effect" (47%).

Less than half of the Doubtful think various sectors of society should be doing more to address climate change, including the Government (40%), citizens (43%), businesses (40%), themselves personally (27%), and the Irish EPA (35%). About half say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (46%), while 42% say "Ireland is too small to make a difference in climate change; we should let other countries take the lead on reducing greenhouse gas emissions."

11. Climate-Related Behaviours

There are many ways in which people can take action on climate change. The previous section considered support for government policy, but grassroots political activism can also have significant effects on the activities of governments. Consumer activism, such as supporting the adoption of energy-efficient products and technologies, as well as personal actions such as energy conservation can also contribute to large scale changes in climate-related behaviours. However, intention to engage in a behaviour does not always translate into actual behaviours.

Accordingly, respondents were asked about their history over the past 12 months of engaging in a variety of political and consumer behaviours related to climate change and their intentions to engage in those behaviours over the next 12 months.

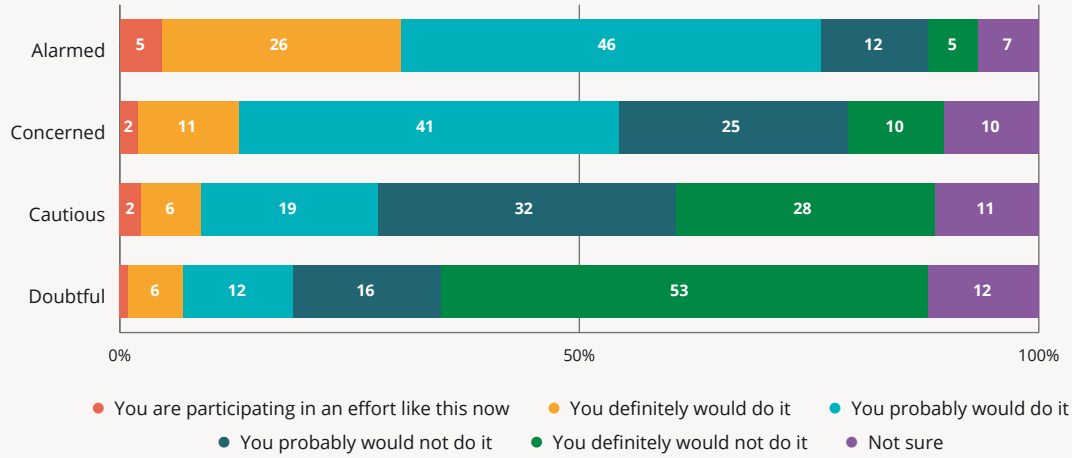
Considering personal actions related to climate change, the Alarmed are the most likely to report having taken direct action in the last 12 months, with 5% already engaged in direct campaigning on the issue and a further 26% saying they "definitely would" join climate action campaigns. The likelihood of the other audiences participating in such a manner is much lower. Overall, this still represents a very large group of Irish adults who could become involved in public climate action campaigns.

There are large differences between the audiences in their intentions to change their consumer activities based on the environmental reputation of a company. About seven in ten (68%) of the Alarmed intend to "punish companies that are opposing steps to reduce climate change," compared with 56% of the Concerned, 37% of the Cautious and 13% of the Doubtful.

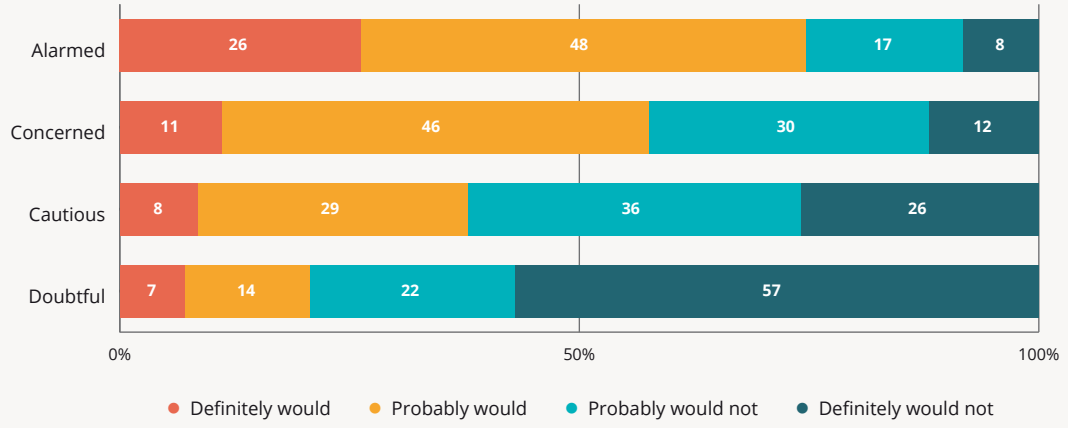
In terms of past consumer behaviour, a third (33%) of the Alarmed indicate that the environmental reputation of a company has influenced them to reward the company by making a purchase "several/many times" in the last year compared to about a fifth (17%) of the Concerned, and only small proportions of the Cautious (4%) and Doubtful (5%). Similarly, a quarter (25%) of the Alarmed said they had punished companies that are opposing steps to reduce climate change by not buying their products "several/many times" in the last year. Much smaller proportions of the Concerned (10%), Cautious (3%) and Doubtful (3%) audiences punished companies based on their environmental record as frequently as the Alarmed.

Graphs of each audience's responses to individual climate-related behaviour questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

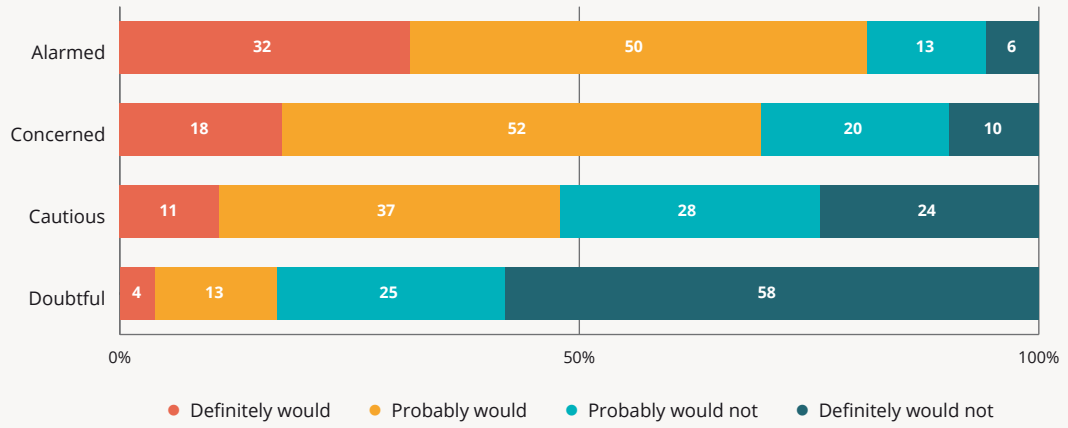
How willing or unwilling are you to join a citizens campaign to convince leaders in Ireland to take action to reduce climate change?



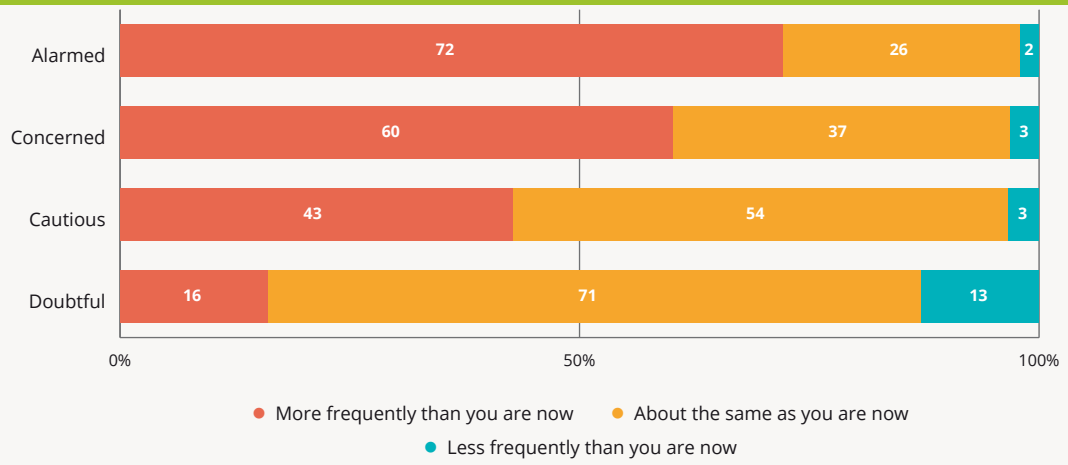
How likely would you be to do each of the following things if a person you like and respect asked you to?...[Volunteer your time to an organization working on climate change]



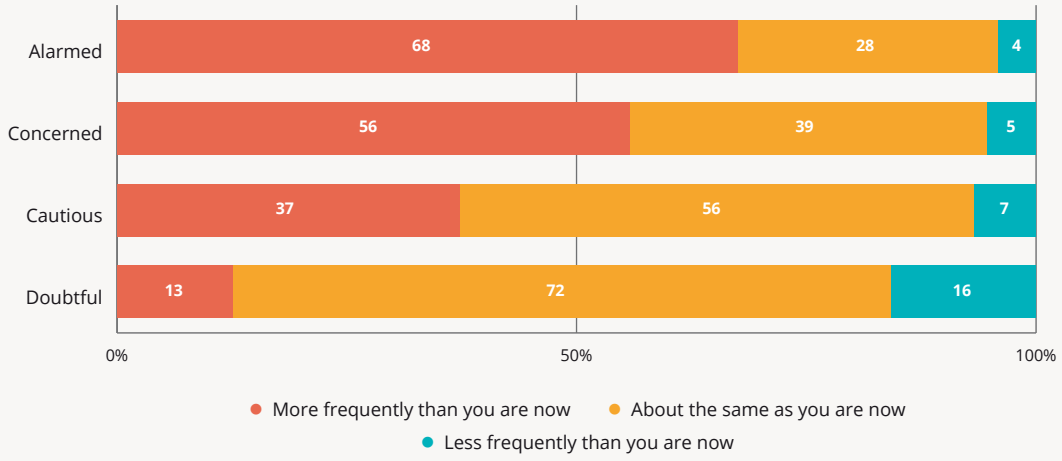
How likely would you be to do each of the following things if a person you like and respect asked you to?...[Donate money to an organization working on climate change]



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?



Over the next 12 months, do you intend to punish companies that are opposing steps to reduce climate change by NOT buying their products?



11.1 The Alarmed

The Alarmed are generally willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (5%) and those who would "definitely" (26%) or "probably" (46%) join such a campaign. If asked by a person they like and respect, many of the Alarmed "definitely" (26%) or "probably would" (48%) volunteer their time to an organization working on climate change. Many of the Alarmed also "definitely" (32%) or "probably would" (50%) donate money to an organization working on climate change. Over the next 12 months, a large majority of the Alarmed intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (72%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (68%).

11.2 The Concerned

The Concerned are moderately willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (2%) and those who would "definitely" (11%) or "probably" (41%) join such a campaign. If asked by a person they like and respect, many of the Concerned "definitely" (11%) or "probably would" (46%) volunteer their time to an organization working on climate change. Many of the Concerned also "definitely" (18%) or "probably would" (52%) donate money to an organization working on climate change. Over the next 12 months, a majority of the Concerned intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (60%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (56%).

11.3 The Cautious

The Cautious are somewhat willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (2%) and those who would "definitely" (6%) or "probably" (19%) join such a campaign. If asked by a person they like and respect, many of the Cautious "definitely" (8%) or "probably would" (29%) volunteer their time to an organization working on climate change. Many of the Cautious also "definitely" (11%) or "probably would" (37%) donate money to an organization working on climate change. Over the next 12 months, many of the Cautious intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (43%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (37%).

11.4 The Doubtful

A majority of the Doubtful are unwilling to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, with 16% saying they "probably would not do it" and 53% saying they "definitely would not do it." If asked by a person they like and respect to volunteer time to an organization working on climate change, a majority of the Doubtful also say they "definitely would not" (57%), or "probably would not" (22%). The Doubtful also said they "definitely would not" (58%) or "probably would not" (25%) donate money to an organization working on climate change. The Doubtful were much more likely than the other audiences to say they would maintain their current pattern of buying goods and services "about the same as you are now" whether a company took steps to reduce climate change (71%), or opposed steps to reduce climate change (72%).

12. Demographics and Social Characteristics

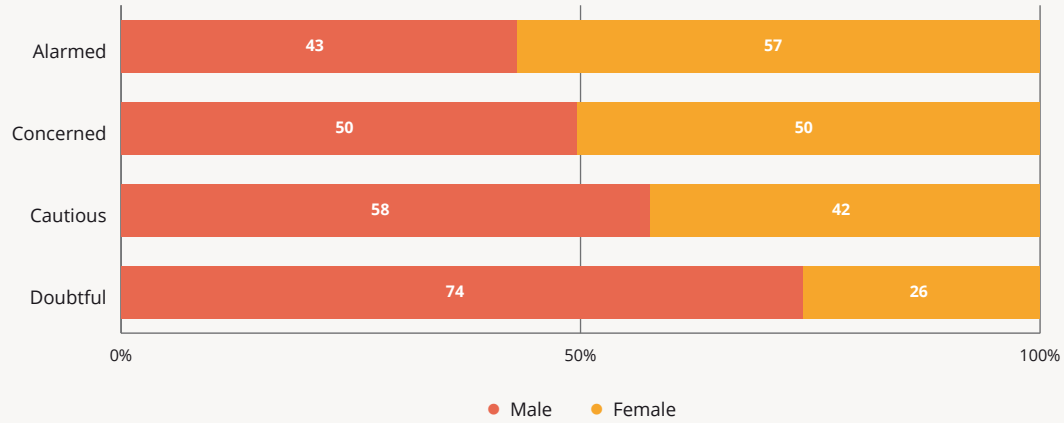
A variety of socio-demographic questions on gender, employment category, and social class were answered by respondents. A number of these questions were used to ensure that the final sample was representative of the Irish population, based on information provided by the national census conducted by the Central Statistics Office (CSO; see Section 15 for details).

Age differences between the segments are related to climate risk perceptions, with a higher proportion of younger people in the Alarmed audience and higher proportions of older people in the Concerned, Cautious, and Doubtful audiences. However, these differences do not strongly predict which climate change audience a respondent is in. The climate change audiences are very large and diverse groups that are more strongly influenced by their views towards climate change, rather than by age, social class, or employment type.

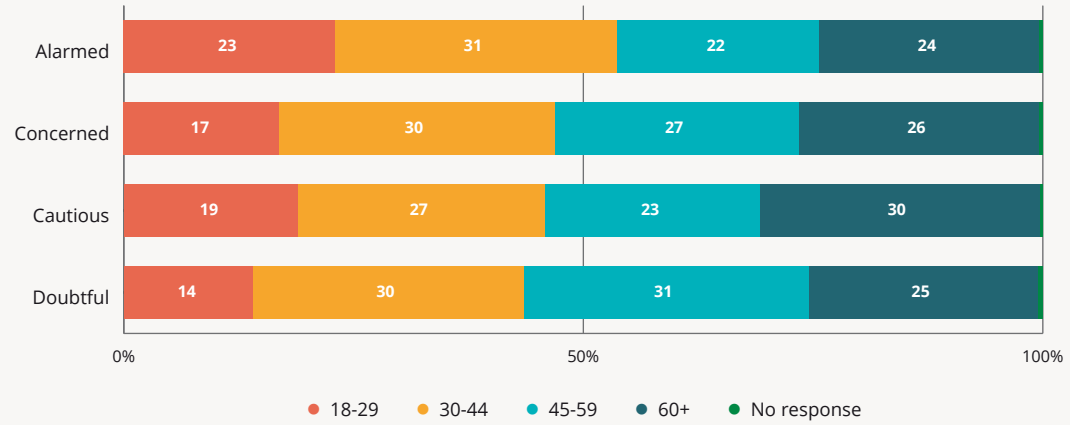
There is little evidence of a strong urban/rural divide between the climate audiences. Both urban and rural residents are found in all four of the segments. Urban and rural respondents have similar views about the importance of climate change and support for climate mitigation and adaptation policies. Likewise, particular employment categories (e.g., farmers) are not substantially different than the rest of the population.

Graphs of each audience's responses to individual demographic questions are presented below. A detailed summary of the responses is provided for each audience following the graphs.

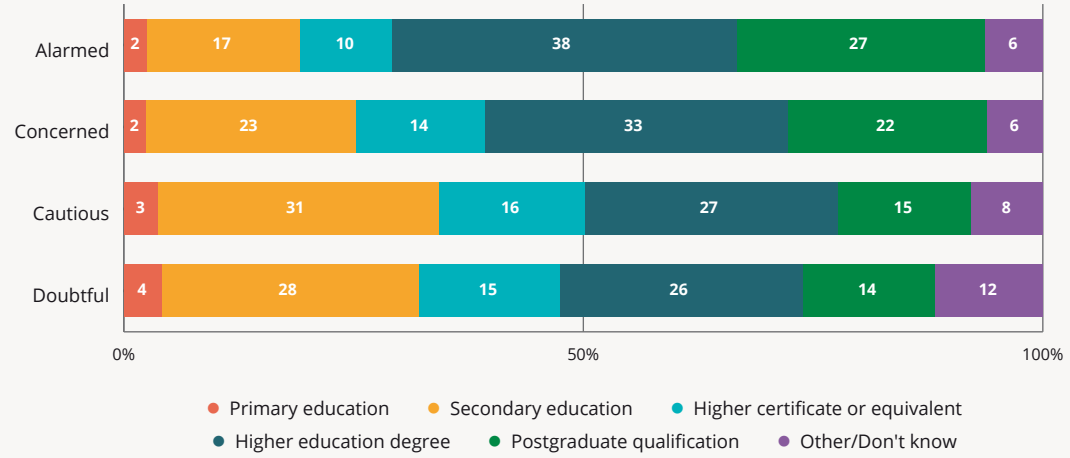
Gender of selected respondent



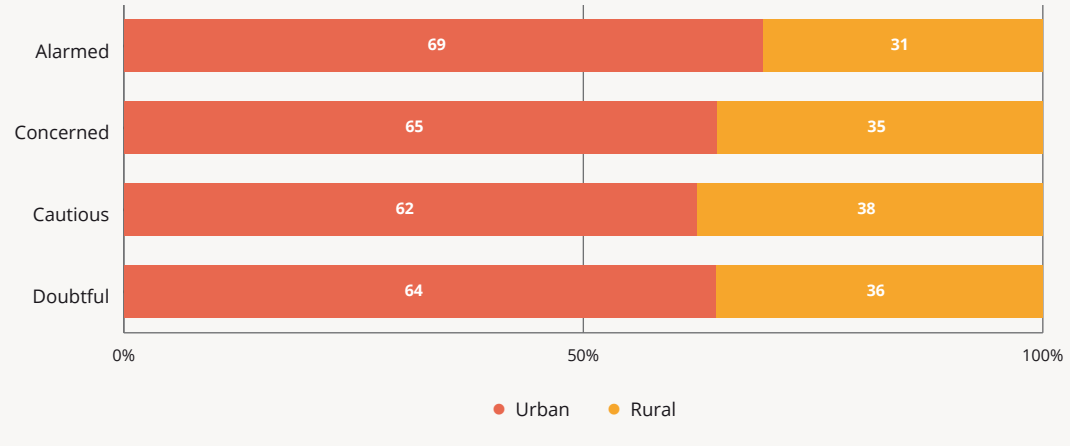
What age are you?



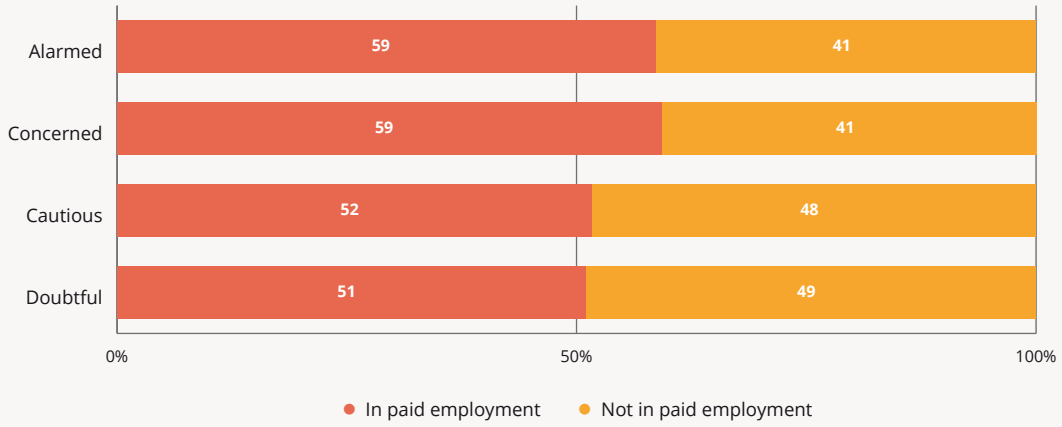
What is the highest level of education which you have completed to date?



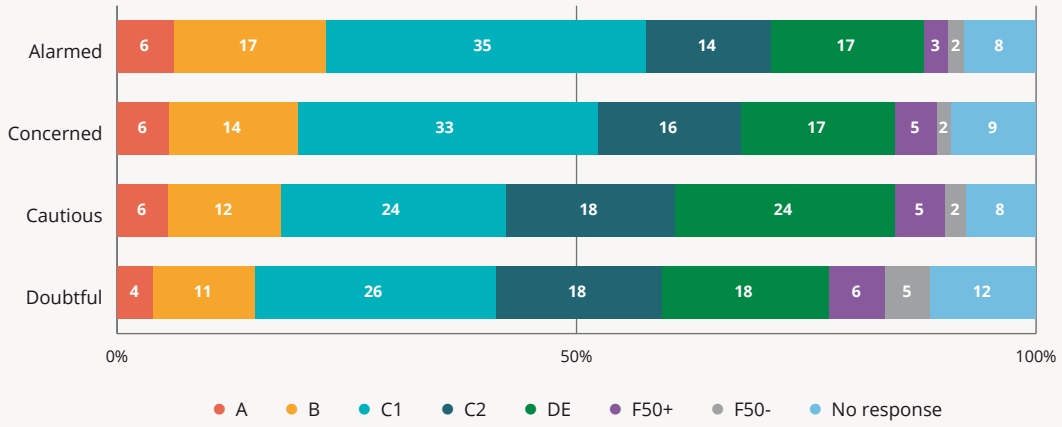
Area



Working Status

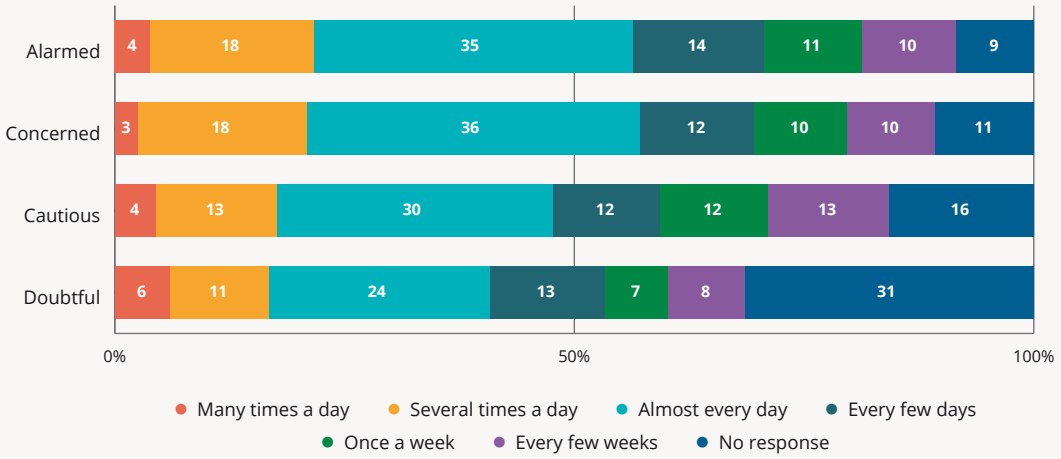


Social Class

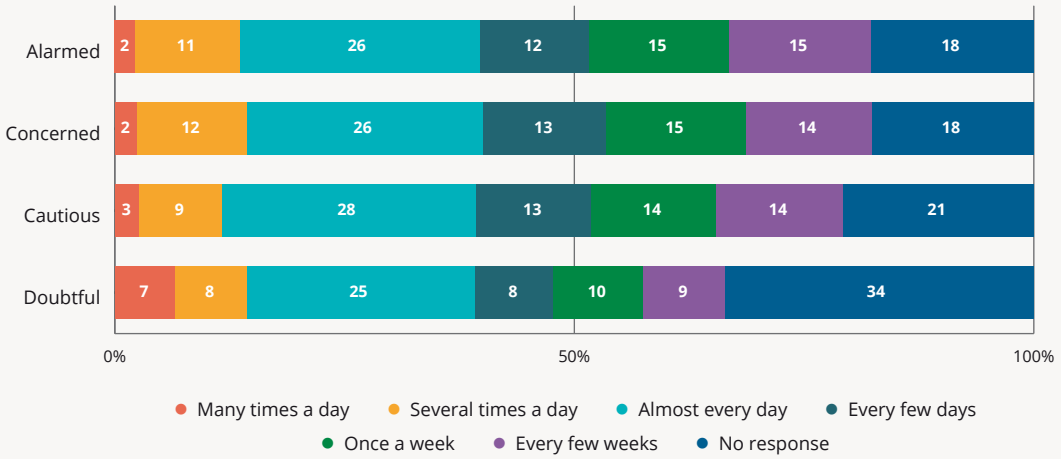


Code	Label
A	Higher managerial/professional
B	Intermediate managerial/professional
C1	Supervisory/clerical/administrative worker
C2	Skilled worker
D,E	Semi-unskilled worker /retired/carer/unemployed
F50+	Farmer/agricultural worker on larger farm (over 50 acres)
F50-	Farmer/agricultural worker on smaller farm (under 50 acres)

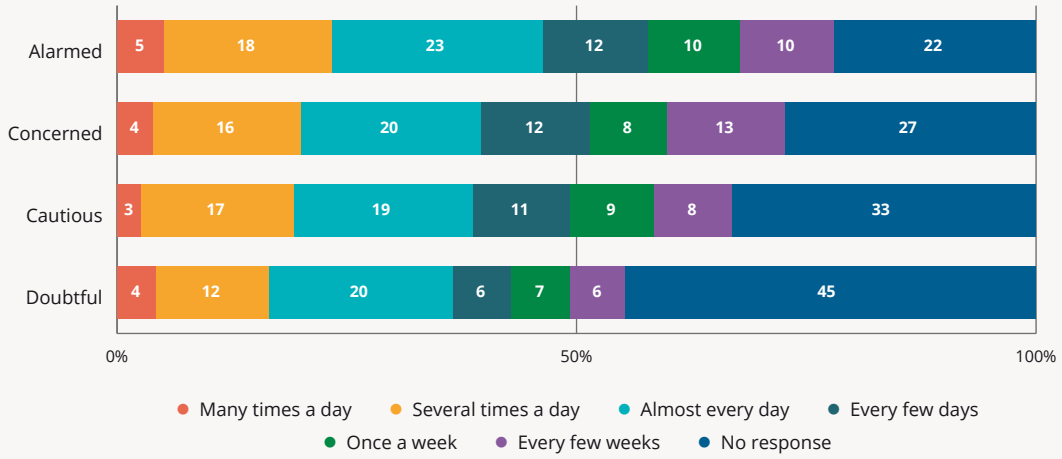
How often do you watch, listen to, or read content from the following?... [National TV, radio, newspapers, etc.]



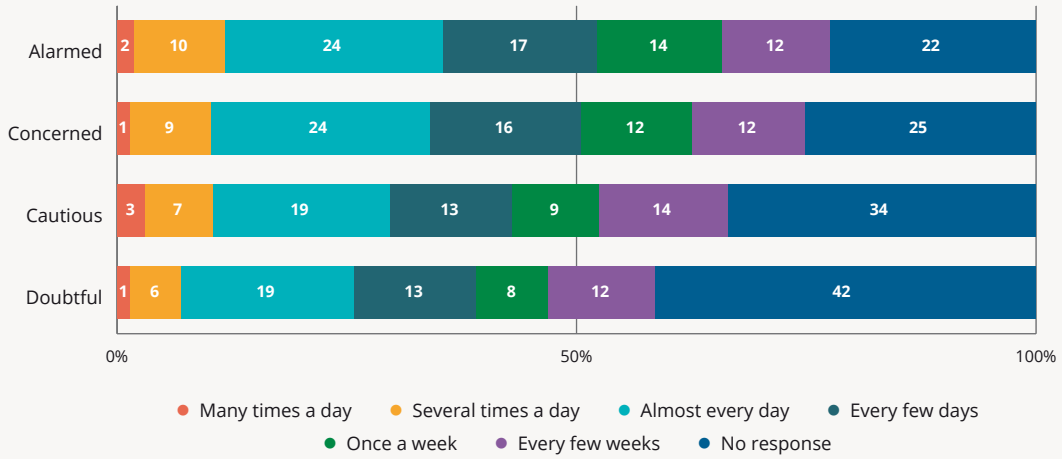
How often do you watch, listen to, or read content from the following?... [Local radio, newspapers, etc.]



How often do you watch, listen to, or read content from the following?...[Social media (podcasts, blogs/content celebrities/personalities/activists)]



How often do you watch, listen to, or read content from the following?...[Streaming services (such as Netflix, Now, Disney +)]



12.1 The Alarmed

The Alarmed are more likely than other segments to be female (57%), be 18-29 years old (23%), have higher education or postgraduate degrees (64%), live in an urban area (69%), or have no stated religion (30%), and are less likely than other segments to be Roman Catholic (50%). The Alarmed are more likely than the Cautious or Doubtful to be working in paid employment (59%) and to be working full time (44%). The Alarmed are more likely to be intermediate managers, doctors, or lawyers (17%) or junior managers, salesperson, nurse, teacher, or students (35%) than the Cautious or Doubtful. The Alarmed watch, listen to, or read content almost every day or more often from the national media (56%), local media (40%), social media (46%), and streaming services like Netflix, Now, Disney+, etc. (35%).

12.2 The Concerned

The Concerned are equally likely to be male or female (50% each), and are close to national averages on age, urban residence (65%), and religion (62% Roman Catholic). The Concerned are more likely than the Cautious or Doubtful to have a higher education or a postgraduate degree (55%), to work in paid employment (59%), and to be working full time (45%). They are more likely to be junior managers, salespeople, nurses, teachers or students (35%) than the Cautious or Doubtful. The Concerned watch, listen to, or read content almost every day or more often from the national media (57%), local media (40%), social media (40%), and streaming services like Netflix, Now, Disney+, etc. (34%).

12.3 The Cautious

The majority of the Cautious are male (58%) and the segment tends to be comprised of older members, with 30% being over 60 years old. The Cautious tend to have less education than the Alarmed and Concerned, including 34% who have primary or secondary school as their highest completed level of education. They are more likely than the Alarmed and Concerned to not have paid employment (48%) and are the group most likely to be retired (24%). The Cautious are more likely to do semi- or unskilled work or to be a casual worker, homemaker, retired, or full time carer of another household member (24%) than the other groups and are more likely to be skilled workers (18%) than the Alarmed or Concerned. The Cautious watch, listen to, or read content almost every day or more often from the national media (48%), local media (39%), social media (39%), and streaming services like Netflix, Now, Disney+, etc. (30%).

12.4 The Doubtful

The Doubtful are the segment most likely to be male (74%) and 45 to 59 years old (31%). They have less education than the Alarmed and Concerned, including 32% who have primary or secondary school as their highest completed level of education. They are more likely than the Alarmed and Concerned to not have paid employment (49%) and are the group most likely to be unemployed (18%). They are the least likely segment to say they have "no religion" (12%). The Doubtful watch, listen to, or read content almost every day or more often from the national media (41%), local media (39%), social media (36%), and streaming services like Netflix, Now, Disney+, etc. (26%). However, the Doubtful are much more likely than other segments to say they never use national media (31%), local media (34%), social media (45%), or streaming services (42%).

13. Conclusion

Successfully addressing the challenge posed by climate change will require a diversity of messages, messengers, and methods, each tailored to meet the needs of different target audiences. This research provides a solid foundation, grounded in social science, to facilitate the changes required to achieve a transition to a low-carbon future.

The segmentation analysis of the *Climate Change in the Irish Mind* survey data presented in this report outlines four distinct Irish climate change audiences. These audiences have been termed: The Alarmed (36% of the Irish adult population, approximately 1.3 million people), the Concerned (48% of the Irish adult population, approximately 1.7 million people), the Cautious (12% of the Irish adult population, approximately 400 thousand people), the Doubtful (3% of the Irish adult population, approximately 100 thousand people).

Large differences in climate change beliefs, worry and knowledge form a spectrum starting with the Alarmed, who strongly believe that climate change due to human activity is a real and immediate threat. The Concerned are convinced that climate change is a serious issue, but when compared to the Alarmed are less worried about it and view it as a less immediate threat. The Cautious do believe climate change is happening but are less sure of the causes and are less likely to think it will personally affect them. The Doubtful are overwhelmingly not worried, and don't perceive climate change as a threat.

This report has outlined how the distinct climate outlooks of the different groups relate to willingness to support government policies on climate change. Possibilities for future research using the *Climate Change in the Irish Mind* data are outlined below.

13.1 Future research on worries about climate change impacts and risk perceptions

The CCIM Data and segmentation report can be used for future analysis of how gender and educational background relate to climate risk perceptions and how this relates to the sense of immediacy of climate change risks.

There are also opportunities to explore how age differences affect climate risk perceptions given the skew toward youth in the Alarmed and the trend towards an older demographic in the Concerned, Cautious, and Doubtful audiences. This could support future behavioural research on framing effects in messaging these audiences.

Similarly, information from this segmentation report could be used to communicate that there are strong norms in support of the scientific consensus. Simple communication around the size of the different audiences and the strong level of awareness of climate issues can be used in related research to study influences on perceptions of climate change and the broadly high levels of support for climate policy.

13.2 Future research on support for climate policy, behaviour, and communications

Evidence from this report shows that policies emphasising equality and fairness have high levels of support from all audiences. Further research should be carried out on how to structure policies as redistributive and fair so that greater consensus can be built around them.

A considerable amount of research is needed on the "say – do gap" (i.e., the difference between stated intentions and actions). The information in the current report can form part of the baseline information for such research in Ireland.

When it comes to messaging on climate change, educators, scientists, and weather reporters are clearly held in high regard by the public. Further research on how best to reach those in the audiences with the weakest knowledge or most sceptical attitudes about climate change could be highly informative. The CCIM data can be further explored to understand which kinds of messengers and messages will best engage these audiences.

14. Appendix 1

14.1 Climate change in the Irish Mind questionnaire

Topic: Quota control questions

Questions	Details	Comments
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	Comments
1. How worried are you that the following might harm your local area?	**Randomise** • 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	Response options for each: • 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?	• High risk • Moderate risk • Low risk • No risk	

Theme: Beliefs

Questions	Details	Comments
3. How much do you know about climate change? Would you say you …	• 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?	• Yes [GO TO Q6] • No [GO TO Q7] • Don't know [GO TO Q5]	
[ASK IF Q4 = "Don't know"] 5. Even if you don't know, what's your best guess about whether climate change is happening?	• Yes, climate change is happening • No, climate change is not happening	
[ASK IF Q4 = "Yes"] 6. How sure are you that climate change is happening?	• Not sure at all • Somewhat sure • Very sure • Extremely sure	
[ASK IF Q4 = "No"] 7. How sure are you that climate change is not happening?	• Not sure at all • Somewhat sure • Very sure • Extremely sure	
[ASK ALL] 8. Assuming climate change is happening, do you think it is….	• Caused mostly by human activities • 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?	• 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	Comments
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.	**Randomise** • 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	

Theme: Risk Perceptions

Question	Details	Comments
11. How worried are you about climate change?	• Very worried • Somewhat worried • Not very worried • Not at all worried	
12. How important is the issue of climate change to you personally?	• Extremely important • Very important • Somewhat important • Not too important • Not at all important	
13. How much do you think climate change will harm....?	• 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	Response options for each: • 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?	• They are being harmed now • In 10 years • In 25 years • In 50 years • In 100 years • Never	

Topic: Policy Support

Questions	Details	Comments
15. Do you think climate change should be a very high, high, medium, or low priority for the Government of Ireland?	• Very high • High • Medium • Low	
16. Overall, do you think that taking action to reduce climate change will...	**Rotate codes 1 & 2** • 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...	**Rotate codes 1 & 2** • 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 organizations who could take action regarding climate change. Do you think each of the following should be doing more or less to address climate change?	**Randomise** • You personally • Local government • Government • Politicians • Businesses • Citizens • The media • The Irish Environmental Protection Agency (Irish EPA)	Response options for each: • 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.	**Rotate codes 1 & 2** • 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	Comments
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 **your** local area to support the increased use of renewable energy?	• 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?	**Randomise** • 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	Response options for each: • 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?	**Rotate** • 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	Response options for each: • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose

Questions	Details	Comments
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?	**Randomise** • 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	Response options for each: • Strongly support • Somewhat support • Somewhat oppose • Strongly oppose

Topic: Behaviours (consumer and political)

Questions	Details	Comments
24. Over the past 12 months, how often, if ever, have you chosen not to eat meat for environmental reasons?	• Never • Rarely • Occasionally • Often • 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?	• 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 …	• More frequently than you are now • Less frequently than you are now • About the same as you are now	

Questions	Details	Comments
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?	• 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 …	• More frequently than you are now • Less frequently than you are now • About the same as you are now	
29. How willing or unwilling are you to join a citizens' campaign to convince leaders in Ireland to take action to reduce climate change?	• You are participating in an effort like this now • You definitely would do it • You probably would do it • You probably would not do it • You definitely would not do it • Not sure	
30. How likely would you be to do each of the following things if a person you like and respect asked you to? (READ IF NEEDED: Would you say you definitely would do it, probably would do it, probably would not do it, or definitely would not do it?)	**Randomise codes 1-4** • Write letters, email, or phone government officials about climate change • Volunteer your time to an organization working on climate change • Donate money to an organization working on climate change • Meet with an elected official or their staff about climate change • Personally engage in non-violent civil disobedience (e.g., sit-ins, blockades, or trespassing) against corporate or government activities that make climate change worse [ASK THIS ONE LAST]	Response options for each: • Definitely would not • Probably would not • Probably would • Definitely would

Topic: Norms

Questions	Details	Comments
31. How often do you discuss climate change with your family and friends?	• 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.?	• Never • Once a year or less often • Several times a year • At least once a month • At least once a week • Not sure	

Topic: Personal Experience of Climate Change

Questions	Details	Comments
33. Which of the following statements best reflects your view?	• 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	Comments
34. How often do you watch, listen to, or read content from the following?	**Randomise** *(Note to interviewers: please stress words in bold at codes 1 and 2 to emphasis distinction)* • **National** TV, Radio, Newspapers (print, online), • **Local** Radio, Newspapers (print, online) • Social media (podcasts, blogs/content celebrities/personalities/activists) • Streaming services (such as Netflix, Now, Disney +)	Response options for each: • Never • Every few weeks • Once a week • Every few days • Almost every day • Several times a day • Many times a day
35. How much do you trust or distrust the following as a source of information about climate change?	**Randomise** • 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)	Response options for each: • Strongly distrust • Somewhat distrust • Somewhat trust • Strongly trust

And finally 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".

Questions	Details	Comments
C1. Which phrase best describes the area where you live?	• A City • A large town (5000+ population) • A small town (1,500-4,999 population) • A rural area	
C2. 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.)	• 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	
C3. In politics people sometimes talk of left and right. Where would you place yourself on a scale from 0 to 6 where 0 means the left and 6 means the right?	[NUMERIC OPEN END, 0-6 RANGE]	
C4. If there was a General Election tomorrow, to which party or independent candidate would you give your first preference vote? (DO NOT READ OUT LIST. PROBE TO PRECODES)	• Fianna Fáil • Fine Gael • Labour Party • Sinn Fein • Independent • Green Party • Socialist Party • Solidarity/People Before Profit (Solidarity/PBP) • RENUA Ireland • Aontu • Independents4Change • Social Democrats • Workers Party • Other specify • Don't know • Would not vote	

Questions	Details	Comments
C5. What is your current working status? READ OUT	• Working – Full Time (30+ hours per week) • Working – Part Time (-29 hours per week) • Self-Employed • Unemployed • Home Duties/Primary Carer • Retired • Student	
C6. Are you yourself the chief wage earner in your household or not? That is, the person who contributes most money to the household income?	• Yes • No	
C7. 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]	
C.8. What is your Marital Status, are you …	• Single • Married • Cohabiting • Widowed • Separated/Divorced • Civil Partnership	
C.9. Including yourself, how many adults or children aged 15 or over live in the Household? valid numbers 1 to 12 *(must be between 1 and 12)*	[OPEN END]	
C.10. How many children aged under 15 live in the household? valid numbers 0 to 12 *(must be between 0 and 12)*	[OPEN END]	

Questions	Details	Comments
C.11. Do you have any dependent children living with you who are aged ...	• 0-4 years • 5-12 years • 13-17 years	
C.12. Are you an Irish citizen?	• Yes • No	
C.13. Were you born in Ireland?	• Yes • No • [ASK IF C.13 = "No"]	
C.14 In which of these regions were you born?	• Northern Ireland • UK • Europe (excl. UK/NI • Asia • Africa • North America • South America • Australia/New Zealand	
[ASK ALL] Intro TEXT. The next three questions we will ask are in relation to religion, 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.		

Questions	Details	Comments
C.15. What is your religion?	• Roman Catholic • Church of Ireland • Muslim (Islamic) • Orthodox Christian (Greek/Coptic/ Russian) • Presbyterian • Other religion (please specify) • No Religion • Prefer not to say	
C16. What is your ethnic background?	• 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	
C17. Do you describe yourself as a man, a woman, or in some other way?	• Man • Woman • Some other way	

15. Appendix 2

15.1 Technical Summary of Survey Methodology

15.1.1 Brief background

On behalf of the Environmental Protection Agency and the Yale Program on Climate Change Communication (YPCCC), Behaviour & Attitudes (B&A) conducted a national survey on Irish attitudes about climate change. This research comprised conducting a nationally representative survey to collect data on the Irish population to measure climate change beliefs, attitudes, policy preferences and behaviour for analysis by the YPCCC.

15.1.2 Survey methodology

The Climate Change Survey was conducted with a representative sample of the Irish population, aged 18 years and over. It was conducted by way of Computer Aided Telephone Interviewing (CATI) via a Random Digit Dialling (RDD) approach. About 80% of this sample was accessed through mobile phones and 20% through landline.

A sample of 4,000 was achieved with a plus or minus margin of error of 1.6% at a 95% confidence interval. The proportion of successful calls was aligned with regional breakdowns as per CSO population statistics based on the following criteria, with interlocked gender and age quotas to ensure the correct number of interviews were conducted in each quota cell.

- Age: 18-35/35-54/55+
- Gender (Male/Female)
- Work status (at work/not at work)
- Region (Dublin; Rest of Leinster; Munster; Connacht/Ulster)

15.1.3 Statistical Weighting

The weighting applied to the data set was in accordance with the specific criteria used for the quota controls and drawn from the latest available national population statistics from the Central Statistics Office (CSO); primarily the 2016 Census.

15.1.4 Data Protection and Quality control

Under General Data Protection Regulations (GDPR), respondents were clearly informed that their participation in the survey was voluntary, that they were free to refuse to answer any particular question, to stop the interview at any point and to request that all data they provided to B&A be destroyed.

Respondents were also informed about their data being used in an anonymised dataset. Following quality control checks for data reliability and compliance with best practice, any identifying information was removed from B&A databases and destroyed.

All data exported and used in the production of CCIM reports by the YPCCC and EPA was completely anonymised. No individuals were identifiable in the datasets which were only to be used for statistical reporting purposes.

15.1.5 Statistical Procedures

The segmentation analyses incorporated information from 4 variables (listed in the table below) and was conducted using the *poLCA* package in the *R* programming language. The package uses latent class analysis to identify clusters of respondents who are similar to one another on the measured variables.

This method was chosen because it works with categorical data. The model aims to identify unobserved "latent classes" (i.e., segments) that help explain the relationships between the measured variables.

To accomplish this, the program uses the expectation-maximization (EM) and Newton-Raphson algorithms to maximize the log-likelihood function of belonging to each group. Thus, each observation (person) is assigned a probability of belonging to each potential cluster. The model begins with random values and proceeds iteratively, replacing old values with new values in each iteration until the maximum likelihood is reached. Put simply, respondents with similar responses on the observed variables will cluster into the same segments, with each response evaluated as to whether it causes a given respondent to have a lower or higher likelihood of being assigned to a given segment.

The segmentation analyses generated several potential solutions ranging from 3-segments to 10-segments. Model fit statistics (Akaike Information Criterion and Bayesian Information Criterion) were used to guide the assessment of each potential solution and evaluate the trade-off between parsimony (fewer segments) and the informational value of each additional segment.

Additionally, the interpretability of each solution was assessed by examining cross-tabulations of each segment with other variables in the dataset. The 4-segment solution was selected as the most interpretable and useful. It is the solution presented in this report.

Questions used for latent class analysis

Question Text	Response Levels
How worried are you about climate change?	*"Very worried," "Somewhat worried," "Not very worried," "Not at all worried"*
How much do you think climate change will harm you personally?	*"A great deal," "A moderate amount," "Only a little," "Not at all"*
How much do you think climate change will harm future generations?	*"A great deal," "A moderate amount," "Only a little," "Not at all"*
How important is the issue of climate change to you personally?	*"Extremely important," "Very important," "Somewhat important," "Not too important," "Not at all important"*

16 Appendix 3: Climate Change Audience Profiles

16.1 The Alarmed

Who are the Alarmed?

The Alarmed are 36% of the Irish public. They are the segment of the Irish public most convinced climate change is happening. They understand that human activities are the cause of climate change and that scientists agree that it is happening (i.e., that there is a scientific consensus). The Alarmed are very worried about climate change and are the audience most likely to view climate change as personally threatening.

The Alarmed believe the impacts of climate change are already happening here and now. They are the most likely to say that climate change is affecting the weather and poses a great risk to people and places in Ireland.

The Alarmed are the segment most likely to hear about climate change in the media at least weekly and to talk often to their friends or family about the issue. The Alarmed strongly support climate policies, want more action by everyone, from government to individuals, and many are willing to get personally involved in climate activism.

Climate Change Beliefs

The Alarmed are the segment most likely to say they know "a lot" (34%) or "a moderate amount" (54%) about climate change. They overwhelmingly think climate change is happening (99%) and most are "extremely" sure that it is (65%). About 9 in 10 (91%) say that "most scientists think climate change is happening." About three-quarters (77%) think climate change is caused mostly by human activities, while 21% think it is caused equally by human activities and natural changes. However, only 40% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 22% think it is energy industries.

Emotional Responses and Perceived Risks of Climate Change

The Alarmed are overwhelmingly "very worried" about climate change (97%). A majority (62%) think that climate change is already harming people in Ireland now, while 22% think it will start harming people in Ireland in the next 10 years. Nearly all of the Alarmed think climate change will harm future generations (96%) "a great deal." About half think climate change will harm people in Ireland (54%) or people in their community (47%) "a great deal," while 34% think climate change will harm them personally "a great deal."

Personal and Social Engagement with Climate Change

The Alarmed overwhelmingly say that climate change is either "extremely" (50%) or "very important" (49%) to them personally. A majority say they hear about climate change in the media at least "once a week" (58%) or "once a month" (21%). Likewise, a majority say they discuss climate change with their family and friends "often" (48%) or "occasionally" (39%). The Alarmed say they "strongly trust" scientists (77%), the Irish EPA (51%), educators (45%), environmental NGOs (45%), TV weather reporters (37%), their own friends and family (28%), the mainstream news media (23%), journalists (17%), community leaders (15%), religious leaders (8%), political leaders (6%), online celebrities (4%), and corporations (4%) as sources of information about climate change.

Impacts of Climate Change

The Alarmed overwhelmingly believe that climate change is affecting the weather in Ireland (96%) and that over the next 10 years, extreme weather will pose either a "high risk" (43%) or "moderate risk" (46%) to their own communities. A majority of the Alarmed are worried that severe storms (78%), rising sea levels (78%), water shortages (74%), flooding (70%), or droughts (60%) might harm their local areas.

Climate Policies

The Alarmed overwhelmingly think that climate change should be a "very high" (66%) or "high" (28%) priority for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (98%) and to make electric vehicles more affordable (97%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (96%), building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (89%), banning peat, coal, and oil for home heating purposes (81%), and higher taxes on cars that use petrol and diesel (75%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (97%), "helping pay for energy efficiency improvements in low-income households" (97%), and "returning the money to all Irish households in equal amounts" (61%).

Most of the Alarmed think taking action to reduce climate change will either "improve economic growth and provide new jobs" (71%) or "have no effect on economic growth or jobs" (16%). Likewise, a large majority think taking action to reduce climate change will either "improve Ireland's quality of life" (87%) or "have no effect" (7%).

Large majorities of the Alarmed think a number of actors should be doing more to address climate change, including the Government (97%), businesses (97%), citizens (96%), themselves personally (86%), and the Irish EPA (82%). They also overwhelmingly say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (96%).

Climate-Related Behaviours

The Alarmed are generally willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (5%) and those who would "definitely" (26%) or "probably" (46%) join such a campaign. If asked by a person they like and respect, many of the Alarmed "definitely" (26%) or "probably would" (48%) volunteer their time to an organization working on climate change. Many of the Alarmed also "definitely" (32%) or "probably would" (50%) donate money to an organization working on climate change. Over the next 12 months, a large majority of the Alarmed intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (72%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (68%).

Demographics and Social Characteristics

The Alarmed are more likely than other segments to be female (57%), be 18-29 years old (23%), have higher education or postgraduate degrees (64%), live in an urban area (69%), or have no stated religion (30%), and are less likely than other segments to be Roman Catholic (50%). The Alarmed are more likely than the Cautious or Doubtful to be working in paid employment (59%) and to be working full time (44%). The Alarmed are more likely to be intermediate managers, doctors, or lawyers (17%) or junior managers, salespeople, nurses, teachers or students (35%) than the Cautious or Doubtful. The Alarmed watch, listen to, or read content almost every day or more often from the national media (56%), local media (40%), social media (46%), and streaming services like Netflix, Now, Disney+, etc. (35%).

16.2 The Concerned

Who are the Concerned?

The Concerned are Ireland's largest climate change audience, comprising 48% of the population. They are convinced that climate change is happening, although they are less certain than the Alarmed. The great majority of the Concerned understand there is a scientific consensus on climate change, and the majority say human activities are the cause of climate change. Most are somewhat worried about the issue.

The Concerned are less likely than the Alarmed to view climate change as personally threatening or happening here and now, but still notably more likely to do so than members of the other segments. About half hear about climate change in the media at least once a week and occasionally talk to their friends or family about the issue.

The Concerned strongly support climate policies, want more action by everyone, from government to individuals, and some are willing to get personally involved in climate activism.

Climate Change Beliefs

The Concerned are most likely to say they know "a moderate amount" (58%) or "a little" (27%) about climate change. They overwhelmingly think climate change is happening (98%) and most are either "very" (49%) or "extremely" (32%) sure that it is. About 8 in 10 (83%) say that "most scientists think climate change is happening." A majority understand that climate change is caused "mostly by human activities" (56%), while 39% think it is caused equally by human activities and natural changes. However, only 31% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 25% think it is transport and 21% think it is energy industries.

Emotional Responses and Perceived Risks of Climate Change

Most of the Concerned are "somewhat worried" about climate change (94%), while only 4% are "very worried." A little under half (46%) think climate change is already harming people in Ireland now, while 23% think it will start harming people in Ireland in the next 10 years. The Concerned think climate change will harm future generations (89%) "a great deal." Relatively few think climate change will harm people in Ireland (25%), people in their community (18%), or themselves personally (8%) "a great deal."

Personal and Social Engagement with Climate Change

The Concerned mostly say that climate change is either "very" (42%) or "somewhat important" (50%) to them personally. A majority say they hear about climate change in the media at least "once a week" (48%) or "once a month" (23%). Likewise, a majority say they discuss climate change with their family and friends either "often" (21%) or "occasionally" (50%). The Concerned say they "strongly trust" scientists (65%), the Irish EPA (42%), educators (36%), environmental NGOs (33%), TV weather reporters (32%), their own friends and family (24%), the mainstream news media (18%), community leaders (14%), journalists (12%), religious leaders (6%), political leaders (5%), corporations (4%), and online celebrities (2%) as sources of information about climate change.

Impacts of Climate Change

The Concerned overwhelmingly believe that climate change is affecting the weather in Ireland (91%) but say that over the next 10 years, extreme weather will pose only a "moderate risk" (62%) or "low risk" (21%) to their own communities. The Concerned are worried that severe storms (60%), rising sea levels (61%), water shortages (59%), flooding (54%), or droughts (42%) might harm their local areas.

Climate Policies

The Concerned think climate change should be a "very high" (35%) or "high" (46%) priority for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (97%) and to make electric vehicles more affordable (93%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (92%), building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (85%), banning peat, coal, and oil for home heating purposes (66%), and higher taxes on cars that use petrol and diesel (64%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (96%), "helping pay for energy efficiency improvements in low-income households" (95%), and "returning the money to all Irish households in equal amounts" (63%).

Most of the Concerned think taking action to reduce climate change will either "improve economic growth and provide new jobs" (62%) or "have no effect on economic growth or jobs" (18%). Likewise, a large majority think that taking action to reduce climate change will either "improve Ireland's quality of life" (80%) or "have no effect" (10%).

Large majorities of the Concerned think a number of actors should be doing more to address climate change, including the Government (92%), citizens (93%), businesses (92%), themselves personally (82%), and the Irish EPA (72%). They also overwhelmingly say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (92%).

Climate-Related Behaviours

The Concerned are moderately willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (2%) and those who would "definitely" (11%) or "probably" (41%) join such a campaign. If asked by a person they like and respect, many of the Concerned "definitely" (11%) or "probably would" (46%) volunteer their time to an organization working on climate change. Many of the Concerned also "definitely" (18%) or "probably would" (52%) donate money to an organization working on climate change. Over the next 12 months, a majority of the Concerned intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (60%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (56%).

Demographics and Social Characteristics

The Concerned are equally likely to be male or female (50% each), and are close to national averages on age, urban residence (65%), and religion (62% Roman Catholic). The Concerned are more likely than the Cautious or Doubtful to have a higher education or a postgraduate degree (55%), to work in paid employment (59%), and to be working full time (45%). They are more likely to be junior managers, salespeople, nurses, teachers, or students (35%) than the Cautious or Doubtful. The Concerned watch, listen to, or read content almost every day or more often from the national media (57%), local media (40%), social media (40%), and streaming services like Netflix, Now, Disney+, etc. (34%).

16.3 The Cautious

Who are the Cautious?

The Cautious are 12% of the Irish population. They believe that climate change is happening but are less certain about it than the Alarmed or Concerned. A majority understand that there is a scientific consensus that climate change is occurring, but only about a third of the Cautious understand human activities are the cause of climate change.

Nearly half believe climate change is caused equally by human activities and natural changes. Few of the Cautious say they feel well informed or worry about the issue. The Cautious do not perceive climate change as dangerous to themselves or to other people today, but they expect it to harm future generations and plant and animal species.

About half of the Cautious hear about climate change in the media at least once a week, but they talk to their friends or family about the issue relatively infrequently. The Cautious support climate policies and want more action by everyone, from government to individuals, but relatively few are willing to get personally involved in climate activism.

Climate Change Beliefs

The Cautious are most likely to say they only know "a little" (43%) or "a moderate amount" (42%) about climate change. They overwhelmingly think climate change is happening (90%) and most are either "very" (35%) or "somewhat" (30%) sure that it is. A large majority (65%) say that "most scientists think climate change is happening," but 22% believe that "there is a lot of disagreement among scientists." A large proportion think climate change is caused "equally by human activities and natural changes" (46%), while 36% understand that it is caused "mostly by human activities." However, only 20% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 30% think it is transport and 28% think it is energy industries.

Emotional Responses and Perceived Risks of Climate Change

The Cautious are mostly "not very worried" about climate change (68%), while 18% are "somewhat worried." Most of the Cautious think climate change will harm people in Ireland in either 10 years (20%), 25 years (24%), or 50 years (19%). About half think climate change will harm future generations (50%) "a great deal." Relatively few think climate change will harm people in Ireland (10%), people in their community (5%), or themselves personally (2%) "a great deal."

Personal and Social Engagement with Climate Change

The Cautious mostly say that climate change is either "somewhat" (43%) or "not too important" (45%) to them personally. A majority say they hear about climate change in the media at least "once a week" (47%) or "once a month" (20%). However, a majority also say they discuss climate change with their family and friends only "occasionally" (35%), "rarely" (34%), or "never" (22%). The Cautious "strongly trust" scientists (48%), the Irish EPA (30%), educators (30%), TV weather reporters (26%), their own friends and family (24%), environmental NGOs (20%), the mainstream news media (15%), community leaders (12%), journalists (9%), religious leaders (7%), political leaders (6%), corporations (5%), and online celebrities (3%) as sources of information about climate change.

Impacts of Climate Change

The Cautious believe that climate change is affecting the weather in Ireland (68%) but say that over the next 10 years, extreme weather will pose only a "low" (44%) or "moderate risk" (41%) to their own communities. The Cautious are worried that severe storms (46%), water shortages (41%), flooding (39%), rising sea levels (36%), or droughts (27%) might harm their local areas.

Climate Policies

The Cautious think climate change should be a "very high" (11%), "high" (34%), or "medium priority" (40%) for the Government of Ireland. They also either "strongly" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (93%) and to make electric vehicles more affordable (85%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (90%) and building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (78%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (91%), "helping pay for energy efficiency improvements in low-income households" (90%), and "returning the money to all Irish households in equal amounts" (67%). A majority *oppose* the banning of peat, coal, and oil for home heating purposes (54%) and higher taxes on cars that use petrol and diesel (61%).

A majority of the Cautious think taking action to reduce climate change will either "improve economic growth and provide new jobs" (45%) or "have no effect on economic growth or jobs" (28%). Likewise, a large majority think taking action to reduce climate change will either "improve Ireland's quality of life" (57%) or "have no effect" (27%).

Most of the Cautious think most sectors of society should be doing more to address climate change, including citizens (76%), businesses (75%), the Government (73%), themselves personally (62%), and the Irish EPA (57%). They also say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (77%).

Climate-Related Behaviours

The Cautious are somewhat willing to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, including those who are already "participating in an effort like this now" (2%) and those who would "definitely" (6%) or "probably" (19%) join such a campaign. If asked by a person they like and respect, many of the Cautious "definitely" (8%) or "probably would" (29%) volunteer their time to an organization working on climate change. Many of the Cautious also "definitely" (11%) or "probably would" (37%) donate money to an organization working on climate change. Over the next 12 months, many of the Cautious intend to increase their buying of goods or services from companies that have taken action to reduce climate change "more frequently than you are now" (43%), or to punish companies that are opposing steps to reduce climate change by NOT buying their products "more frequently than you are now" (37%).

Demographics and Social Characteristics

The majority of the Cautious are male (58%) and the segment tends to be comprised of older members, with 30% being over 60 years old. The Cautious tend to have less education than the Alarmed and Concerned, including 34% who have primary or secondary school as their highest completed level of education. They are more likely than the Alarmed and Concerned to not have paid employment (48%) and are the group most likely to be retired (24%). The Cautious are more likely to do semi- or unskilled work or to be a casual worker, homemaker, retired, or full time carer of another household member (24%) than the other groups and are more likely to be skilled workers (18%) than the Alarmed or Concerned. The Cautious watch, listen to, or read content almost every day or more often from the national media (48%), local media (39%), social media (39%), and streaming services like Netflix, Now, Disney+, etc. (30%).

16.4 The Doubtful

Who are the Doubtful?

The smallest of the four segments (3% of the Irish public), the Doubtful are split between those who believe climate change is happening, those who don't, and those who say they don't know. They are the segment most likely to say that climate change is caused by natural changes in the environment, and a majority do not recognize that there is a scientific consensus.

The Doubtful overwhelmingly say they are not at all worried about climate change and do not perceive it as a serious threat to themselves, Ireland, or people in general. About half hear about climate change in the media at least once a week, but most rarely or never talk to their friends or family about the issue.

The Doubtful narrowly support most climate policies, but a majority oppose banning the use of peat, coal, and oil for home heating purposes and raising taxes on cars that use petrol and diesel. Fewer than half want more action on climate from the government, individuals, etc., and very few are willing to become personally involved in climate activism.

Climate Change Beliefs

The Doubtful are the second most likely segment to say that they know "a lot" about climate change (26%), while 35% say they know a "moderate amount," and 32% say they know only "a little." About half think climate change is happening (51%), but 37% think it is "not happening," while 11% say they "don't know." Four in ten (41%) say that "most scientists think climate change is happening," but 32% believe that "there is a lot of disagreement among scientists," contrasted with 11% saying "most scientists think climate change is not happening," and 16% who "don't know enough to say." A little over a third think climate change is caused "mostly by natural changes in the environment" (35%), while 23% understand that it is caused "mostly by human activities." Only 13% understand that agriculture is Ireland's largest source of the pollution that causes climate change, while 25% think it is energy industries, 22% think it is transport, and 20% think it is waste such as landfills, incinerators, and composting.

Emotional Responses and Perceived Risks of Climate Change

The Doubtful are mostly "not at all worried" about climate change (86%), while 12% are "not very worried." The Doubtful think climate change will harm people in Ireland either "never" (45%), in 100 years (13%), or in 50 years (16%). Only about a quarter think climate change will harm future generations (26%) "a great deal." Very few think climate change will harm people in Ireland (3%), people in their community (4%), or themselves personally (3%) "a great deal."

Personal and Social Engagement with Climate Change

The Doubtful mostly say climate change is either "not too important" (26%) or "not at all important" (61%) to them personally. A majority say they hear about climate change in the media at least "once a week" (46%) or "once a month" (14%). However, a majority also say they discuss climate change with their family and friends only "occasionally" (22%), "rarely" (25%), or "never" (43%). The Doubtful "strongly trust" scientists (27%), their own friends and family (24%), educators (21%), the Irish EPA (16%), TV weather reporters (13%), community leaders (12%), religious leaders (12%), environmental NGOs (11%), the mainstream news media (11%), journalists (11%), corporations (11%), online celebrities (9%), and political leaders (8%) as sources of information about climate change.

Impacts of Climate Change

Relatively few of the Doubtful believe that climate change is affecting the weather in Ireland (37%), and they say that over the next 10 years, extreme weather will pose only a "low" (37%) or "no risk" (43%) to their own communities. Relatively few of the Doubtful are worried that flooding (22%), severe storms (20%), water shortages (20%), rising sea levels (15%), or droughts (13%) might harm their local areas.

Climate Policies

The Doubtful think climate change should be a "low" (54%) or "medium priority" (25%) for the Government of Ireland. They also either "strongly support" or "somewhat support" government grants to encourage residential and commercial building owners to install cleaner and more efficient heating systems (75%) and to make electric vehicles more affordable (68%). They also support increasing forests in their own localities to offset greenhouse gas emissions from agriculture (66%) and building new infrastructure such as pylons or substations in their local areas to support the increased use of renewable energy (59%).

They also support using the revenues from rising taxes on fossil fuels over the next 10 years for "supporting the further development of new clean energy sources such as marine and hydrogen power" (78%), "helping pay for energy efficiency improvements in low-income households" (79%), and "returning the money to all Irish households in equal amounts" (67%). A majority *oppose* the banning of peat, coal, and oil for home heating purposes (70%) and higher taxes on cars that use petrol and diesel (77%).

Most of the Doubtful think taking action to reduce climate change will either "reduce economic growth and cost jobs" (37%) or "have no effect on economic growth or jobs" (40%). Likewise, a majority think that taking action to reduce climate change will either "Reduce Ireland's quality of life" (29%) or "have no effect" (47%).

Less than half of the Doubtful think various sectors of society should be doing more to address climate change, including the Government (40%), citizens (43%), businesses (40%), themselves personally (27%), and the Irish EPA (35%). About half say that "we have a responsibility to act on climate change, and Ireland should do what it can to reduce its own greenhouse gas emissions" (46%), while 42% say "Ireland is too small to make a difference in climate change; we should let other countries take the lead on reducing greenhouse gas emissions."

Climate-Related Behaviours

A majority of the Doubtful are unwilling to join a citizen's campaign to convince leaders in Ireland to take action to reduce climate change, with 16% saying they "probably would not do it" and 53% saying they "definitely would not do it." If asked by a person they like and respect to volunteer time to an organization working on climate change, a majority of the Doubtful also say they "definitely would not" (57%), or "probably would not" (22%). The Doubtful also said they "definitely would not" (58%) or "probably would not" (25%) donate money to an organization working on climate change. The Doubtful were much more likely than the other audiences to say they would maintain their current pattern of buying goods and services "about the same as you are now" whether a company took steps to reduce climate change (71%), or opposed steps to reduce climate change (72%).

Demographics and Social Characteristics

The Doubtful are the segment most likely to be male (74%) and 45 to 59 years old (31%). They have less education than the Alarmed and Concerned, including 32% who have primary or secondary school as their highest completed level of education. They are more likely than the Alarmed and Concerned to not have paid employment (49%) and are the group most likely to be unemployed (18%). They are the least likely segment to say they have "no religion" (12%). The Doubtful watch, listen to, or read content almost every day or more often from the national media (41%), local media (39%), social media (36%), and streaming services like Netflix, Now, Disney+, etc. (26%). However, the Doubtful are much more likely than other segments to say they never use national media (31%), local media (34%), social media (45%), or streaming services (42%).

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