



PUBLIC ATTITUDES TO CLIMATIC SHOCKS AND THEIR INTERACTION WITH THE FOOD SYSTEM

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1. EXECUTIVE SUMMARY

- British adults rate taste, value and health as the most important factors when shopping for food but are more divided on whether ethics, environmental sustainability and carbon footprint are important factors. Value and health are also the factors that are most likely to influence people to change their diet; British adults are more likely to be influenced by health, cost and convenience than ethics or climate change.
- Buying seasonal food when available is the most popular potential dietary change of those tested for British adults, particularly those aged 65+. The British public are more likely to consider buying more environmentally sustainable food, or food with a low carbon footprint, than reducing their meat and dairy intake by adopting vegetarian, pescatarian or vegan diets.
- Young people, aged 18–24, are most open to changing their diets, particularly regarding adopting vegetarian, pescatarian or vegan diets. This age group are also the most likely to agree that if we all made changes to our diets, we could significantly reduce the impact of climate change.
- Encouragingly, the vast majority of British adults agree that as a result of human behaviour, the earth’s climate is changing. Those who agree with this also tend to agree that the food system is a key contributor and that if we all made changes to our diets, we could significantly reduce the impact of climate change.
- Most British adults think it is better to change some of their lifestyle choices now if it means future generations are impacted less by the effects of climate change and that we should prevent potential future issues rather than dealing with issues once they affect us.
- British adults are more likely to report that they are informed when it comes to rising temperatures and weather conditions but are less informed on the relationship between the food system and climate change. This mirrors what they predict the main effects of climate change will be in 50 years, where they are most likely to report extreme weather and rising sea levels in the UK. Effects relating to the food system in the UK are much less commonly reported suggesting a lack of awareness of these risks.
- Communicating the differing effects of climate change is unlikely to encourage a change in British adults’ behaviour. Britons report that the effects of climate change *would* encourage them to change their behaviour, but are equally likely to be encouraged to change their diet regardless of the details of varying effects.
- The most common source of information on climate change among British adults is television programmes and this is also where most would like to get information from. This varies widely by age however. Young Britons (aged 18–24) have a greater preference for online sources, compared to older generations (65+) where newspaper

articles are more popular.

- British adults are most trusting of researchers and scientists to provide accurate information on climate change and have relatively little trust in the media and food industry.

2. INTRODUCTION

2.1 RESEARCH BACKGROUND

The climate is changing, bringing with it a number of new challenges for the food system. In particular, climate change is associated to an increased risk of climatic shocks which could have significant impacts on food security. For example, extreme weather events such as severe droughts, floods and storms could substantially damage global crop yields, especially if multiple–breadbasket regions are affected simultaneously¹. While environmental tipping points could bring about major changes to wider climate systems, affecting how and where we can grow certain crops².

At the same time the food system directly affects the climate, producing around a third of total anthropogenic greenhouse–gas (GHG) emissions³. It is, therefore, a prime target for emissions reductions and must adapt if we are to avoid dangerous climate change^{4,5}.

Within the food system, production is a major hotspot for emissions. To this end, a great deal of research has been conducted into more sustainable approaches for farming and food processing, identifying a number of potential techniques that could be employed to mitigate GHG emissions in the food supply chain. However, evidence is growing to suggest that change to demand will also be necessary to sufficiently decrease the environmental footprint of the food system. These demand measures will require change to consumer behaviour, reducing consumption of resource intensive foods like meat and dairy and consuming only the calories needed.

Given this evidence that adaptation from across the food system will be necessary to successfully mitigate climate change and related climatic shocks, this study was commissioned to explore public understanding of these issues and attitudes towards potential routes for food system change.

2.2 AIMS

The aim of this survey was to better appreciate public understanding of and response to the threat of climatic shocks, providing evidence to the GFS programme and its partners how best to further develop public dialogue work in this space, and how far the public may be willing to change behaviour and support action to mitigate climate change.

Specific objectives were as follows:

- To understand how far members of the public are already informed of the threat of climatic shocks and their potential impacts on both local and global food security
- To understand how far the link between climatic shocks, climate change and food related emissions is already appreciated
- To understand to what extent members of the public may be prepared to personally respond to climate challenges, and what triggers may be most effective in inspiring individual change

¹ <http://www.foodsecurity.ac.uk/assets/pdfs/extreme-weather-resilience-of-global-food-system.pdf>

² <http://www.foodsecurity.ac.uk/assets/pdfs/environmental-tipping-points-exec-summary.pdf>

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797518/>

⁴ <http://www.nature.com/nclimate/journal/v4/n10/full/nclimate2353.html>

⁵ <https://www.chathamhouse.org/publication/changing-climate-changing-diets>

2.3 METHODOLOGY

ComRes interviewed 2024 UK adults online between 6th and 8th January 2017. Data were weighted to be demographically representative of all British adults aged 18+. ComRes is a member of the British Polling Council and abides by its rules (www.britishpollingcouncil.org). This commits us to the highest standards of transparency.

ComRes use a stratified sampling technique using multiple demographic groupings to select respondents randomly from their UK panel. They use stratified sample to obtain a sample population that best represents the entire population being studied, whilst also minimising selection bias and ensuring certain segments of the population are not over- or under-represented. The sample itself is then automatically randomised for potentially-qualifying individuals.

Sample is drawn by age interlocked with gender, social grade and region. Targets for the UK are taken from the National Readership Survey, a random probability F2F survey conducted annually with 34,000 adults.

Sampling software is provided by MARSC which is recognised as a leader in its field for sophisticated sampling systems including sampling using RIM Weights.

3. FINDINGS

3.1 FOOD SHOPPING AND DIET CHOICES

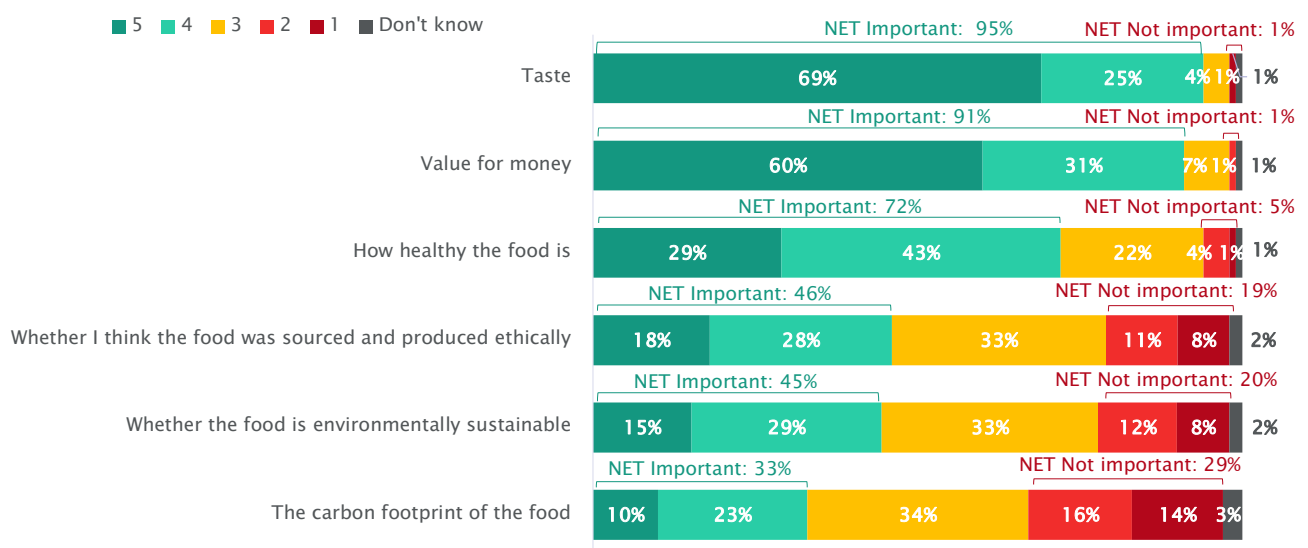
Taste, value and health are most important to British adults when food shopping

When it comes to shopping for food, taste and value for money are rated as the most important factors among British adults; 95% rate taste as important, while nine in ten (91%) report likewise regarding value for money. A smaller majority (72%) report that how healthy the food is is important to them.

Just under half of British adults say that whether they think the food was sourced and produced ethically (46%) and whether the food is environmentally sustainable (45%) is important to them when shopping for food, with around one in five (19% and 20% respectively) stating it is not important for both.

A third of British adults (33%) say the carbon footprint of the food is important to them when shopping for food, with a similar proportion (29%) saying it is not important or rating it 3 on the 5-point scale (34%).

Figure 1: The proportion of British adults who rate the following factors as important when shopping for food



Q. On a rating scale of 1–5 where 1 is not at all important and 5 is very important, how important would you say that each of the following factors are to you when shopping for food? Base: All respondents (n= 2024)

With this in mind, in order for the British public to make changes to their diet it is vital that it does not adversely impact their finances, health or enjoyment of food. Additionally, carbon footprint and environmental sustainability have limited importance which needs to be considered when developing proactive messaging.

Most British adults wouldn't consider a pescatarian, vegetarian or vegan diet

A quarter (23%) of British adults report that they buy seasonal food when available, with a further three in ten (31%) saying they try to do this as best as they can. Seasonal food is considerably more popular amongst those aged 65+, with more than a third (36%) currently buying it, compared to one in ten (12%) of those aged 18–24.

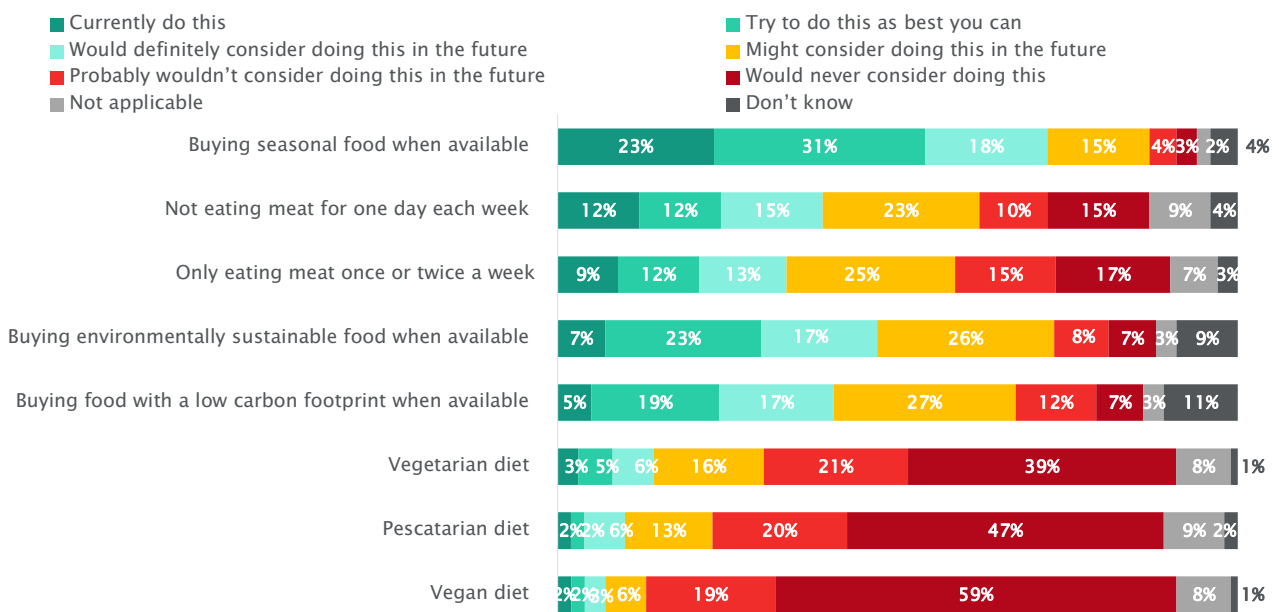
Around one in ten try to limit the amount of meat they eat either by not eating meat for one day each week, e.g. meat-free Mondays (12%) or only eating meat once or twice a week (9%) and similar proportions try to do this as best as they can (12% and 12% respectively).

A small proportion of British adults report buying environmentally sustainable food (7%) or food with a low carbon footprint when available (5%). That said, only 7% of British adults say they would never consider doing either of these and 8% (environmentally sustainable) and 12% (low carbon footprint) respectively report that they probably wouldn't consider doing this in the future. For these environment-influenced dietary choices, the British public do not appear to have strong feelings either way, and therefore could be persuaded if the impact on price, taste and health was negligible.

Six in ten (59%) British adults state that they would never consider a vegan diet, half (47%) would never consider a pescatarian diet and two in five (39%) would never consider a vegetarian diet. Added to this, around one in five (19%, 20% and 21% respectively) say they probably wouldn't consider doing any of these in the future.

- Those aged 65+ are the least likely age group to consider these dietary choices, with nearly three-quarters (72%) saying they would never consider veganism and half (49%) saying they would never consider vegetarianism.
- Those aged 18–24 are more likely to consider vegetarianism; a little more than a quarter (28%) say they would never consider it.
- British adults living in London are considerably more likely to be open to veganism with less than half (45%) saying that they would never consider it.

Figure 2: The proportion of British adults who would consider each of the dietary choices



Q. Thinking about each of the following dietary choices, would you say that you ... ? Base: All respondents (n=2024)

Whilst many British adults report that they would never consider veganism, pescatarianism or vegetarianism, it is worth noting that these dietary choices, broadly speaking, appeal more to younger people. When it comes to those aged 65+, however, buying seasonal food is considerably more likely to appeal, whilst younger British adults are unlikely to be influenced by this. These nuances are important to note, the vast majority of British adults would consider changing their diet in some way, but their priorities differ by age group.

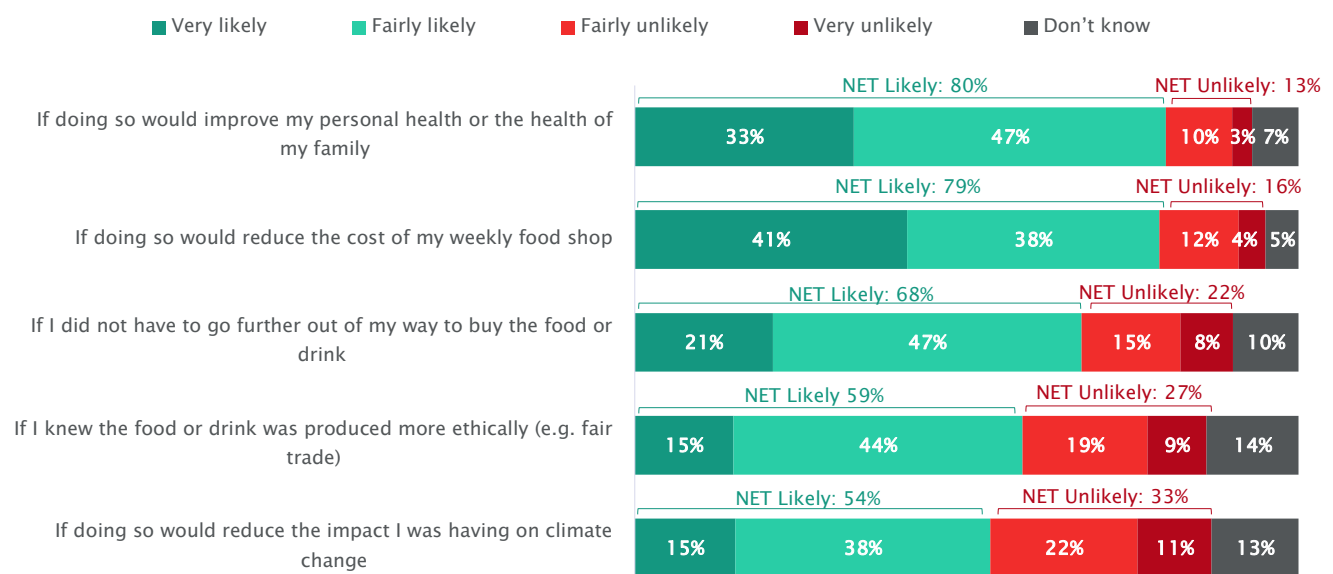
British adults would be more likely to adopt an environmentally sustainable diet if it would improve their health or reduced the cost of their shop

Figure 3 shows the proportion of British adults who would consider changing their overall diet. Four in five British adults say they would be likely to consider changing their overall diet if doing so would improve their personal health or the health of their family (80%), or if it would reduce the cost of their weekly shop (79%). Over two-thirds (68%) say they would be likely to consider changing their overall diet if they did not have to go further out of their way to buy the food or drink.

A slim majority of British adults (59% and 54% respectively) also report that they would be likely to consider changing their diet if they knew the food or drink was produced more ethically or if doing so would reduce the impact they were having on climate change. However, a third (33%) would be unlikely to change their overall diet if doing so would reduce the impact they were having on climate change.

The youngest age group, 18–24 year-olds, are the most likely to consider changing their diet if doing so would reduce the impact they were having on climate change, with two-thirds (64%) reporting this.

Figure 3: The proportion of British adults who would consider changing their overall diet



Q. Thinking about your own dietary choices, how likely or unlikely is it that each of the following would make you change your overall diet to be more environmentally sustainable? Base: All respondents (n=2024)

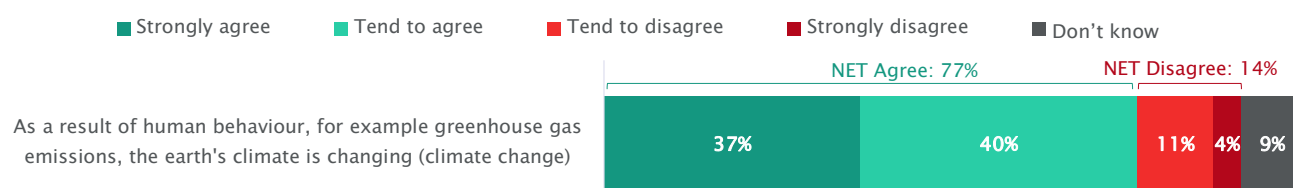
3.2 CLIMATE CHANGE, THE FOOD SYSTEM AND DIETARY CHOICES

Most British adults think that as a result of human behaviour the earth's climate is changing

Three quarters of British adults (77%) agree that as a result of human behaviour the earth's climate is changing, with over a third (37%) strongly agreeing that this is the case. As Figure 4 shows, only one in twenty (4%) *strongly* disagree with the statement.

There are significant differences by age group on this metric. Approaching nine in ten (87%) 18–24 year-olds agree, with two thirds (68%) of those aged 65+ saying the same. 5% of 18–24 year-olds disagree with the statement, compared to a quarter (24%) of those aged 65+. This again illustrates that young people are more engaged when it comes to issues surrounding climate change.

Figure 4: The proportion of British adults who agree with climate change



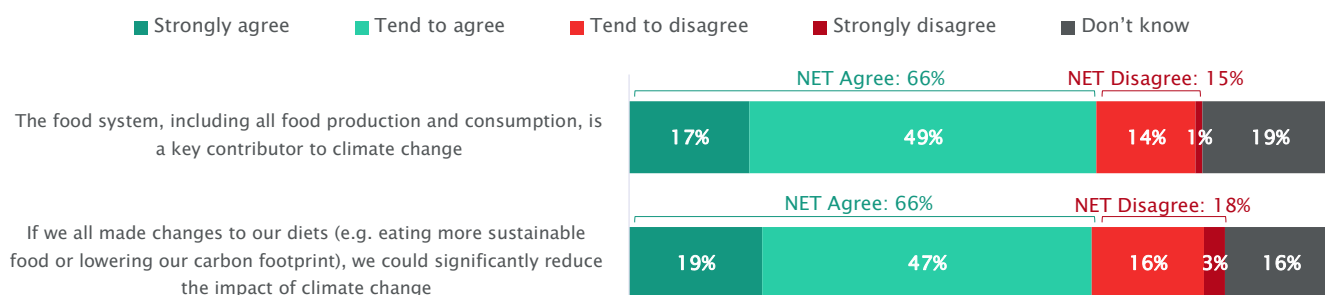
Q. To what extent do you agree or disagree with the following statement? Base: All respondents (n=2024)

Many British adults recognise that the food system is a key contributor to climate change

Two thirds of those who agree that the earth's climate is changing as a result of human behaviour also agree that the food system is a key contributor (66%) and if we all made changes to our diets we could significantly reduce the impact of climate change (66%).

Those in the 55–64 age group are least likely to agree that the food system is a key contributor to climate change with a slim majority (53%) agreeing with this, compared to three-quarters of 18–24 year-olds (74%). When it comes to dietary choices, three-quarters of 18–24 year-olds (76%) agree that if we all made changes to our diets we could significantly reduce the impact of climate change, while only six in ten of those aged 55+ agree (59% of those aged 55–64 and 62% of 65+ year-olds).

Figure 5: The proportion of those who agree that human behaviour is resulting in the Earth's climate changing that also agree with the following statements

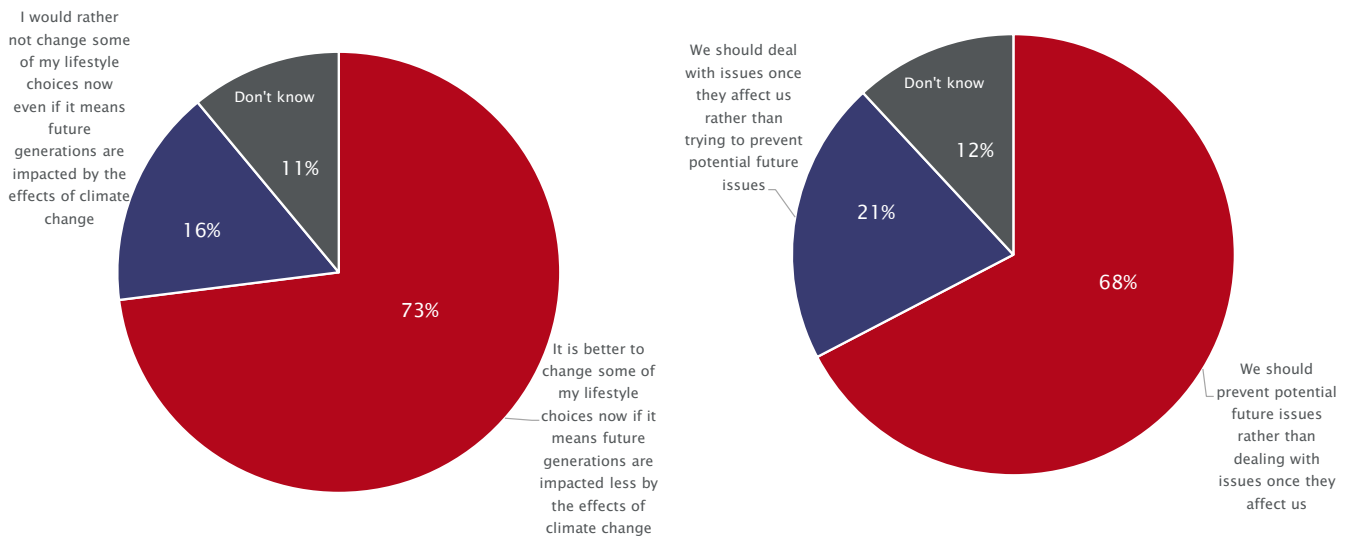


Q. To what extent do you agree or disagree with the following statement? Base: All respondents who agree that 'As a result of human behaviour... the earth's climate is changing' (n=1552)

The majority of British adults agree that our actions should consider potential effects on future generations

As Figure 6 shows, three-quarters (73%) of British adults say that it is better to change some of their lifestyle choices now if it means future generations are impacted less by the effects of climate change, with only 16% saying the opposite. Two-thirds (68%) state we should prevent future issues rather than dealing with issues once they affect us and one in five (21%) say we should instead deal with issues once they affect us. Interestingly a slightly higher proportion of people agree when asked specifically about the effects of climate change than when asked about the concept more generally, suggesting this example really resonates with people.

Figure 6: Changing lifestyles to prevent impacts of climate change



Q. For the following pairs of statements, which would you say that you agree with most? Base: All respondents (n= 2024)

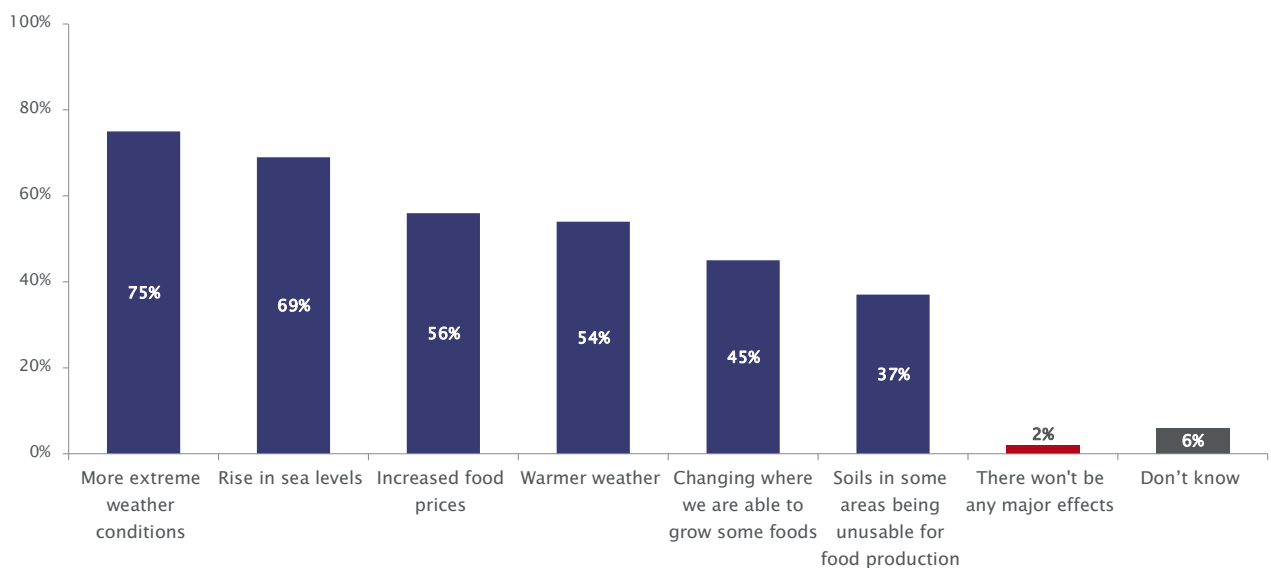
3.3 EFFECTS OF CLIMATE CHANGE

British adults are less likely to associate changes to the food system as an effect of climate change, instead focussing on changes to weather conditions

Of those that agree that the climate is changing as a result of human behaviour, only 2% say that there won't be any major effects in the UK resulting from climate change in 50 years. As Figure 7 shows, three-quarters (75%) think there will be more extreme weather conditions in the UK in 50 years and seven in ten (69%) say there will be a rise in sea levels. More than half of those who agree that climate change is happening think it will result in an increase in food prices in the UK in 50 years (56%) and warmer weather (54%). This shows that the majority of Britons do feel climate change will have serious adverse impacts on the UK in the near future.

The least commonly listed potential effects are agricultural; less than half of those who agree that climate change is happening think it will have had an effect on changing where we are able to grow some foods (45%) or that soils in some areas will be unusable for food production (37%) in the UK in 50 years. This suggests that the British public are less informed when it comes to agriculture and the potential effects of climate change in this area, or potentially that they are less *concerned* about how agriculture could potentially be affected.

Figure 7: Effects of climate change on the UK in 50 years

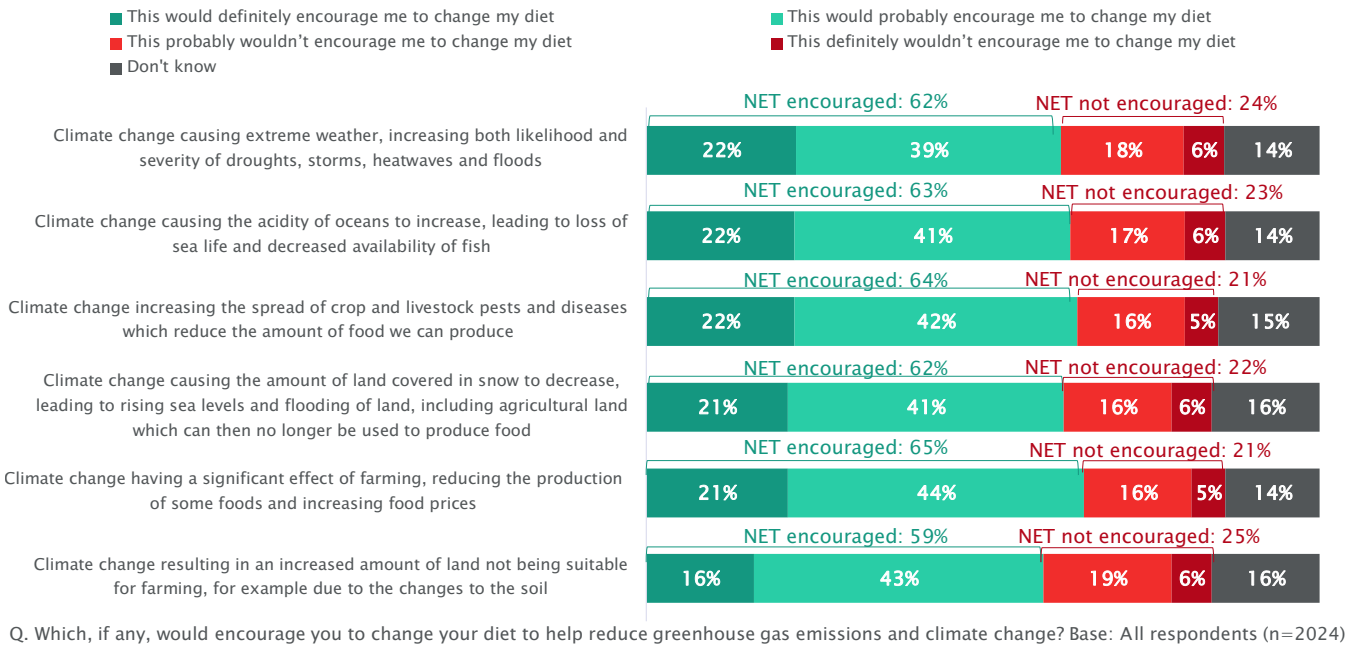


Q. Thinking ahead 50 years, which of the following effects, if any, do you think climate change will have had in the UK? Base: All respondents who agree that 'As a result of human behaviour ... the earth's climate is changing' (n=1552)

Most British adults report that the effects of climate change would encourage them to change their diet

When asked which effects of climate change would be most likely to encourage them to change their diet, no single impact emerges as significantly more influential than the others tested. For each of the statements tested, around three in five British adults would be encouraged to change their diet ranging from between 59% to 65%. Four in ten (43%) report that they would be encouraged by all six of the effects, while a quarter (24%) wouldn't be encouraged by any of the effects. This minimal amount of 'swing' between statements suggests that while using potential effects is a persuasive mechanism, the details of the effect make little difference to whether people will change their behaviour.

Figure 8: Effects of climate change that would encourage a change in your diet



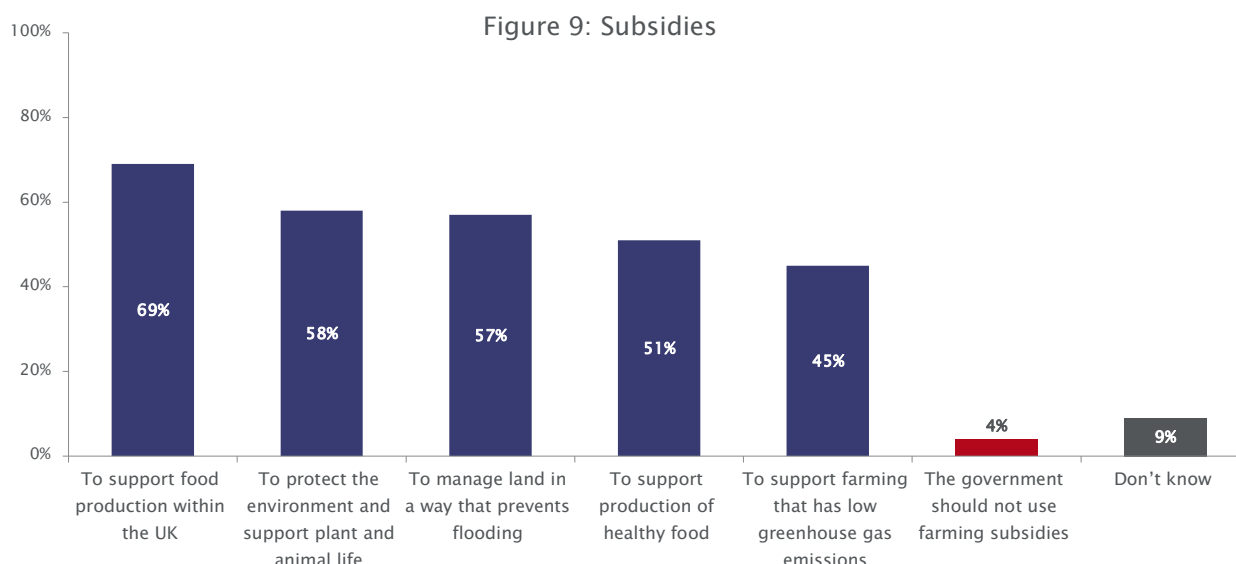
3.4 SUBSIDIES

Subsidies that support food production within the UK are most popular among British adults

Looking specifically at the government's use of subsidies, only 4% of British adults state that the government should not use farming subsidies. Seven in ten (69%) say they think the British government *should* use subsidies to support food production within the UK and three in five say they should be used to protect the environment and support plant and animal life (58%) or to manage land in a way that prevents flooding (57%). As Figure 9 shows, half (51%) of British adults think they should be used to support the production of healthy food and less than half (45%) to support farming that has low greenhouse gas emissions.

Again, there are some differences by age group when it comes to support of subsidies. Those aged 65+ are more likely than average to think the government should use subsidies to support food production within the UK (82%) and the production of healthy food (61%). In contrast, two in five 18–24 year-olds (42%) say they support subsidies that manage land in a way that prevents flooding, compared to the average across age groups of 57%.

The high support of subsidies across older generations suggests this method of mitigating climate change is more likely to be popular among this age group as opposed to dietary changes.



Q. Which, if any, do you think the government should use subsidies for? Base: All respondents (n=2024)

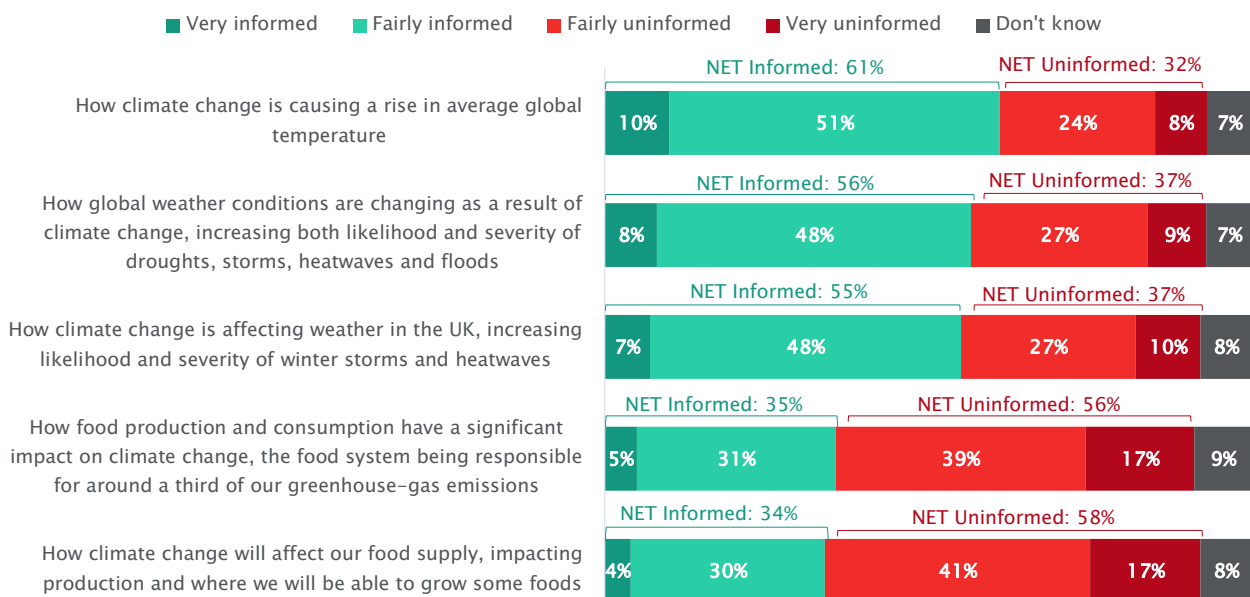
3.5 INFORMATION AND CHANNELS

British adults say they are uninformed on the relationship between climate change and the food system

When asked how informed they are on the effects of climate change, British adults feel most informed regarding how climate change is causing a rise in average global temperature (61% report that they are fairly or very informed). As Figure 10 shows, more than half of British adults state that they are informed when it comes to how global weather conditions are changing as a result of climate change (56%) and how climate change is affecting weather in the UK (55%). Just over a third report likewise regarding the relationship between food and climate change; 35% on how food production and consumption have a significant impact on climate change and 34% on how climate change will affect our food supply. However, the majority of British adults state they feel uninformed on these issues (56% and 58% respectively), suggesting a particular need to raise awareness.

- British adults in the AB social grades are more likely to state they feel informed regarding how climate change is causing a rise in average global temperature (72% state this vs 51% of DE) and how global weather conditions are changing as a result of climate change (67% vs 46% of DE). Therefore, there is a particular need to raise awareness among lower social grades.
- The youngest age group, 18–24 year-olds, are more likely than average (46% vs 35%) to report that they are informed on how food production and consumption have a significant impact on climate change, the food system being responsible for around a third of our greenhouse gas emissions.

Figure 10: The proportion of British adults who feel informed on the following issues

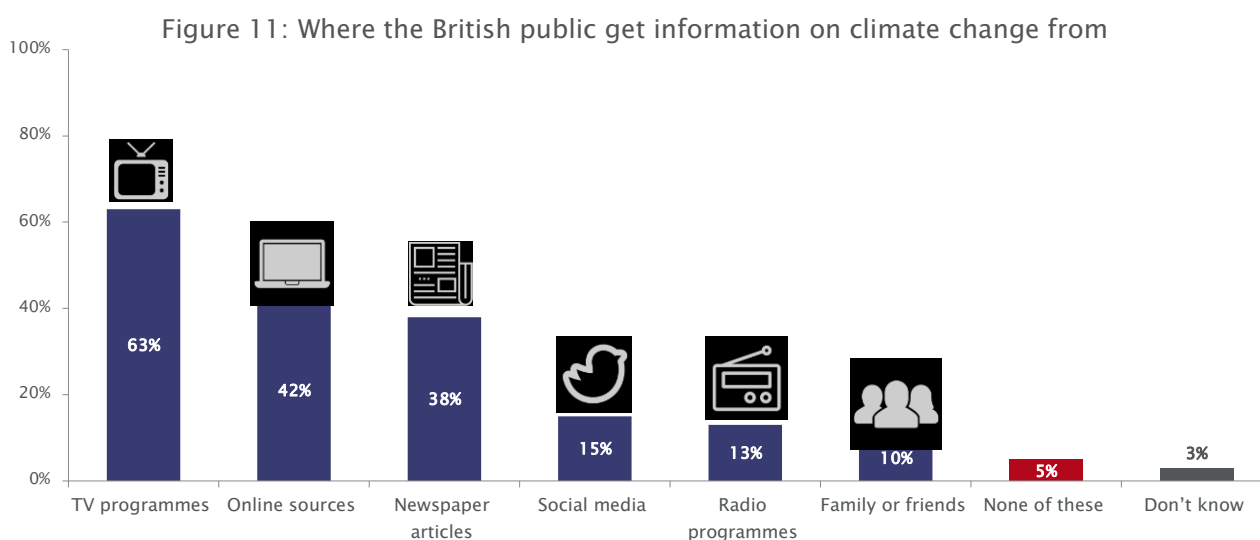


Q. When it comes to information on the effects of climate change, how informed would you say that you are on each of the following issues? Base: All respondents (n= 2024)

Most British adults get information on climate change from TV programmes

The majority (63%) of British adults get their information on climate change from TV programmes, but the channels used vary widely by age group.

- Those aged 65+ are particularly likely to get information from television, eight in ten (79%) report this, while less than half (44%) of 18–24 year-olds say they get information on climate change from TV.
- Those aged 18–24 are more likely to get information on climate change from online sources, where three in five (59%) report this, compared to two in five (42%) across all age groups. Only one in four (27%) of those aged 65+ get information from online sources.
- The picture is similar for social media; 15% of British adults get information on climate change this way but the figure doubles for 18–24 year-olds where three in ten (30%) say they get information on climate change from social media. British adults aged 55+ are the least likely to get information on climate change from social media with only 5% reporting this.
- Around two in five British adults (38%) get information on climate change from newspaper articles, the figure is higher for those aged 65+ where more than half (53%) get information from newspaper articles.

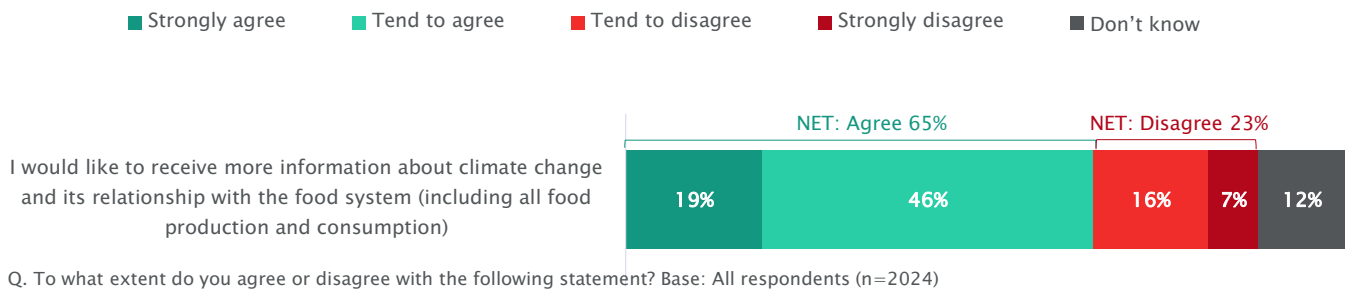


Q. When it comes to information on climate change, where would you say you get most of your information? Base: All respondents (n=2024)

Most British adults would like to receive more information on climate change and the food system

The majority of British adults (65%) would like to receive more information on climate change and its relationship with the food system (including all food production and consumption). As Figure 12 overleaf shows, a quarter (23%) state they would not like more information, with 7% *strongly* reporting this. This is an encouraging finding; in general, any further information on climate change and the food system should be well-received by a significant proportion of Britons.

Figure 12: The proportion of British adults who would like to receive more information on climate change and the food system



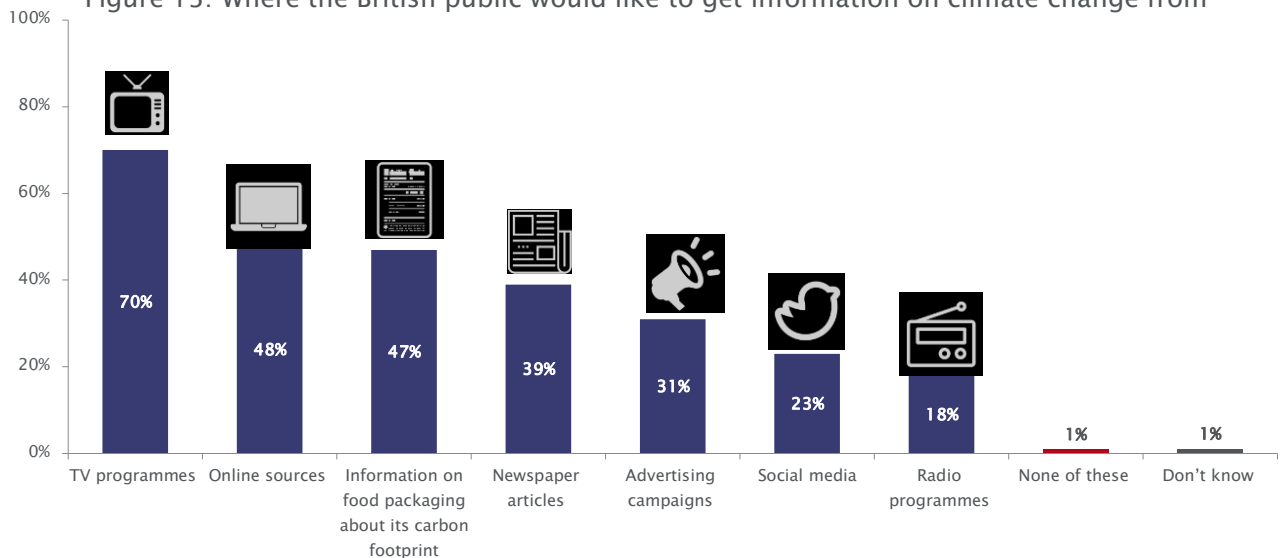
The majority of British adults would like to get information on climate change from TV programmes

Where British adults would like to receive this information largely reflects where Britons say they currently get their information on climate change. Of those that would like to receive more information, the majority would like to get this information from TV programmes (70%). Roughly half of those who would like to receive more information would like to get this from online sources (48%) or information on food packaging about its carbon footprint (47%).

Younger British adults, aged 18–24, and those aged 65+ differ largely on where they would like to get information on climate change on.

- Those aged 18–24 would prefer to get information from social media (43%) and advertising campaigns (42%), but are less likely than average to want to get information from TV programmes (56%).
- More than half of those in the 65+ age group (53%) want to get this information from newspaper articles. This older age group, however, are less likely than average to want information from online sources (38%) or social media (6%).

Figure 13: Where the British public would like to get information on climate change from



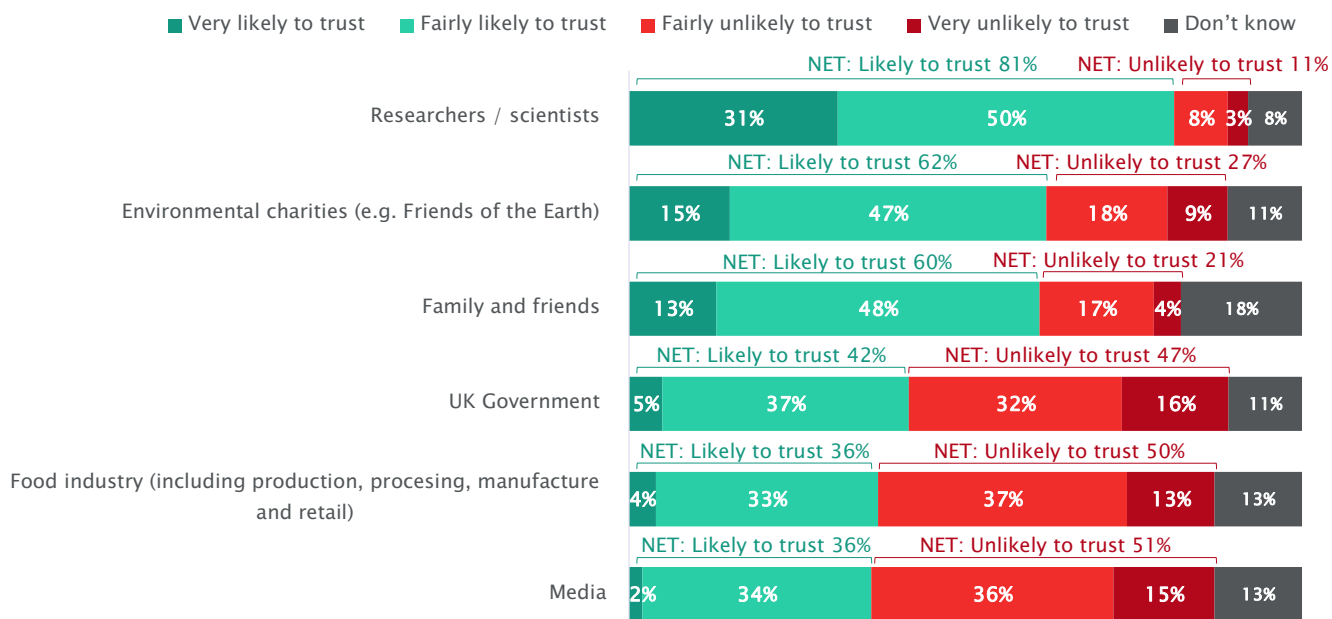
Q. In which of the following ways, if any, would you like to receive more information on climate change and its relationship with the food system (including all food production and consumption)? Base: All respondents who would like to receive more information about climate change and its relationship with the food system (n=1324)

The British public are most trusting of researchers and scientists when it comes to providing accurate information relating to climate change and the food system.

In terms of **who** should provide this information, four in five British adults (81%) would be likely to trust researchers or scientists to provide accurate information relating to climate change and the food system. As Figure 14 shows, the majority of British adults would also trust environmental charities (62%) or family and friends (60%). Around two in five British adults (42%) would be likely to trust the UK Government, a slightly higher figure than those who would be likely to trust the food industry (36%) or media (36%).

Those aged 65+ are least likely to trust the food industry (including production, processing, manufacture and retail) to provide accurate information relating to climate change and the food system. Three in five (60%) would be unlikely to trust them, compared to half of British adults (50%) generally.

Figure 14: Who the British public trust to provide accurate information relating to climate change and the food system



Q. When it comes to providing accurate information regarding issues related to climate change and its relationship with the food system (including all food production and consumption), how likely or unlikely would you be to trust each of the following people or organisations? Base: All respondents (n=2024)

This highlights that researchers and scientists are best placed to communicate this information to the public and the best way to communicate this information appears to be TV programmes, being where Britons *currently* receive information as well as where they would *most like* to receive information. Generally, the British public are less informed on the relationship between climate change and the food system than they are on other effects of climate change so concentrating information on the food system would be worthwhile. Young people are most likely to be receptive to information on climate change and also the most likely to make changes to their lifestyles to reflect this.

ABOUT GLOBAL FOOD SECURITY

Global Food Security is a multi-agency programme bringing together the research interests of the Research Councils, Executive Agencies and Government Departments.

Through Global Food Security these partners are working together to support research to meet the challenge of providing the world's growing population with a sustainable, and secure supply of safe, nutritious and affordable high quality food from less land and with lower inputs.

For further information please visit: www.foodsecurity.ac.uk

Email: info@foodsecurity.ac.uk

ABOUT COMRES

ComRes is a research consultancy specialising in public policy, communications and corporate reputation.

ComRes provides specialist research and insight using the latest developments in market and opinion research to inform strategies, change behaviours and define debates.

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