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Climate Change Skepticism and Excuses

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Executive Summary

One-fifth of Germans doubt the scientific consensus on man-made climate change

A vast majority of Germans is convinced that climate change exists and that it is anthropogenic. However, 22 percent of respondents expressed skepticism about climate change. Reasons might be low trust in science or the widespread misconception that there is no scientific consensus on climate change. Most arguments against additional climate protection do not find support among Germans.

According to a representative survey of over 2,000 German adults, a vast majority believes in climate change. Only 6 percent deny that climate change exists. There is less agreement when it comes to the causes of climate change: About three-fourths of Germans agree with the scientific consensus that climate change is mainly due to human activities. Just under 22 percent of respondents are "climate change skeptical" in the sense that they believe that climate change either does not occur at all or is primarily a natural phenomenon.

Ignorance about the state of research and a lack of trust in science contribute to the relatively low public consensus. Only 61 percent of respondents consider human-made climate change to be a scientific consensus. Those who hold climate skeptical views are also more likely to believe that there are many different scientific opinions about climate change. In addition, 12 percent of respondents said that they trust scientists "not at all" or "not much" and 34 percent have only a moderate level of trust.

Trust in science tends to be greater among male respondents, as well as among more educated people and those who score higher on altruism and patience. Only 14 percent of AfD voters and just slightly more than half of the FDP and CDU/CSU voters say they trust climate research.

Around 83 percent of respondents believe that Germany should do anything in its power to combat climate change now. Common excuses, such as waiting for an international solution or progress in climate protection technology, are rejected by a large majority of Germans. Also, 87 percent believe that each individual can do something about climate change.

Only 57 percent consider that it is feasible to combat climate change without social hardship. Strikingly, supporters of parties that are less in favor of redistribution are more pessimistic about the issue of social justice.

Results

Climate skepticism

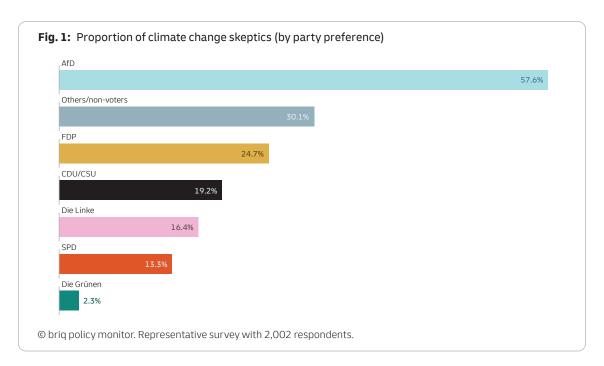
Over 99 percent¹ of scientific papers agree that human activities are the dominant driver of climate change. Is this consensus also reflected in the beliefs of the German population?

To measure the opinions and attitudes toward climate change, we administer a survey to a representative sample of 2,002 German adults. In this briq policy monitor, we study how common climate change skepticism is and the influence of narratives that downplay the urgency of climate action.

The vast majority of Germans (90 percent) believes in climate change. Only 6 percent flat out deny the existence of global warming.² However, there is less agreement when it comes to the reasons for climate change. Three-fourths of Germans (76 percent) agree with the scientific consensus that the climate is changing primarily due to human activities. Almost 19 percent disagree, arguing that climate change is mostly a natural phenomenon.³

We use the term "climate change skepticism" to describe the opinion that climate change is either not happening or it is not primarily man-made. Almost 22 percent of respondents expressed "climate change skepticism", i.e., they disagree with the scientific consensus that climate change is happening and that it is man-made.⁴

Climate change skepticism depends, among other things, on gender, political party preferences, and trust in science. While more than 24 percent of male respondents expressed climate change skepticism, only 19 percent of women did so. Across the entire political spectrum – with exception of right-wing AfD supporters – climate change skeptics are in the minority (see Figure 1). Among Green voters, they account for only two percent, whereas one-fourth of FDP supporters express climate change skepticism.



Lack of information about the state of research could be one reason why the consensus among the general public is less broad than in the scientific community. According to our survey, around 61 percent view anthro-

¹ Lynas, M., Houlton, B. & Perry, S. (2021). Greater than 99% consensus on human caused climate change in the peer-reviewed scientific literature. Environmental Research Letters, 16 (11)

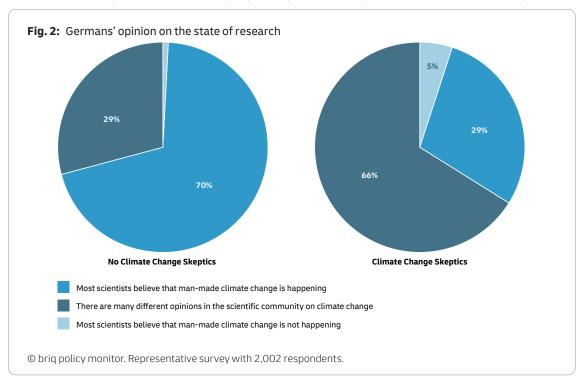
² The rest answered "Don't know" to the question of whether there is climate change.

^{3 1.8 %} say that climate change does not exist, the rest answered "Don't know".

⁴ As a reference: In 2019 YouGov asked 30.000 people from 28 countries the following question: "Thinking about the global environment... In general, which of the following statements, if any, best describes your view?". In Germany, 49 % answered "The climate is changing and human activity is mainly responsible", 36 % said "The climate is changing and human activity is partly responsible, together with other factors", 5 % "The climate is changing but human activity is not responsible at all", and 2 % answered "The climate is not changing". Source: https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/epjjOnusce/YouGov%20-%20International%20climate%20change%20survey.pdf

pogenic climate change as the scientific consensus. More than one in three respondents (37 percent), however, said there are many different opinions on this topic in the scientific community.

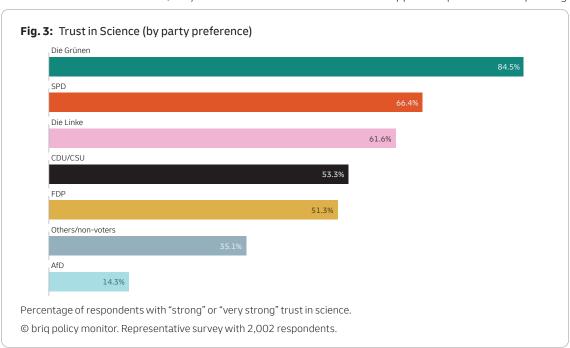
Among those surveyed who believe that climate change is human-made, 70 percent also see this as the scientific consensus. By contrast, two-thirds (66 percent) of climate skeptics said that there were many different



opinions among climate researchers (see Figure 2).

A lack of trust in science, more generally, could also play a role in climate skepticism. We asked people to what extent they trust climate research. Over 54 percent expressed "very strong" or "strong" trust, another 34 percent said they had "moderate" trust. Just under 12 percent said they trust science "not much" or "not at all".

Respondents who are male, higher educated, more altruistic, and more patient are more likely to express trust in science. Figure 3 shows large differences by party affiliation: Barely more than 13 percent of AfD voters trust scientists. But also, only about half of the FDP or CDU/CSU supports expressed a "very strong"



or "strong" trust.

Among climate change skeptics, only 13 percent said they trust science when it comes to climate change research, compared to 66 percent of other respondents. At the same time, climate skeptics also assess the state of research differently and more often assume that there are many different opinions on climate change in the scientific community.

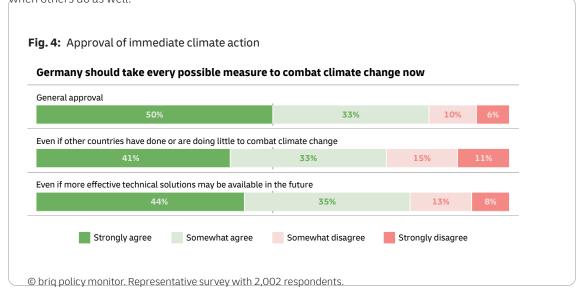
Excuses and exculpatory stories

Excuses in the form of narratives or reinterpretations (climate fluctuations always existed / technical innovation will solve our problems / one country cannot act alone) are part of many discussions about climate change and serve to rationalize one's own inactivity. How widespread are such stories in Germany, and which groups are particularly susceptible to them?

Around 83 percent of respondents believe that Germany should do anything in its power to combat climate change now. To test whether climate change narratives undermine this belief, we confronted the respondents with different "stories" (see Figure 4).

Most people do not consider technological progress to be a convincing argument for postponing climate protection measures. Around 79 percent of respondents are in favor of doing everything possible to combat climate change now, even if more effective technical solutions may be available in the future.

The majority also rejected the much-cited narrative that an "international solution" is needed first: 74 percent of respondents believe that Germany should act immediately, even if other countries have done or are doing little to combat climate change. But support is 9 percentage points lower, relative to our initial question, which supports the notion of "conditional cooperation": People are more willing to act against climate change when others do as well.



Another common excuse is that individuals on their own cannot change anything about climate change anyway. In contrast, 87 percent of respondents believed that every individual could certainly contribute to climate protection. Over 55 percent agreed "completely" with the statement that everyone can contribute, and a further 32 percent agreed "somewhat".

Those who do not agree with this are consequently less willing to act against climate change. They donate less to fight climate change (see brig policy monitor #3) and their general willingness to actively do something

⁵ Even though one individual will rarely be pivotal in the fight against climate change, i.e. effective climate protection will not stand or fall with the consumption behavior of a single individual, every individual can do a great deal of harm. Assuming that current national emissions targets are implemented, it is possible to calculate how much damage an additional ton of CO₂ emissions emitted would have. The additional emission would endanger 8 square meters of vegetation. Source: Semken, C. (2022). The Marginal Impact of Emission Reductions (work in progress).

against climate change is lower (see Figure 5).

Fig. 5: Willingness to act against climate change

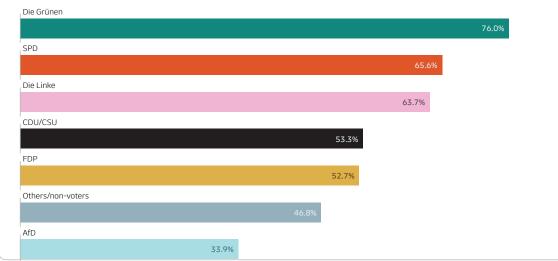
	Opinion: The individual can make a contribution	Opinion: The individual cannot make a contribution
Climate donation to combat climate change	103.21 Euro	47.51 Euro
Share of people willing to ctively try to act against climate change	79.1 %	16.1%

[©] briq policy monitor. Representative survey with 2,002 respondents.

Another excuse to reject climate protection measures is the financial burden, particularly on low-income households. We asked Germans whether they believe that tackling climate change can be done in a socially just way. A small majority of 57 percent believe so.

People with a more pronounced altruistic disposition and greater trust in science are more likely to believe that climate action can be done in a socially just way. While their share is only 28 percent among climate change skeptics, it is 65 percent among all other respondents. Strikingly, supporters of political parties that are less in favor of redistribution are more pessimistic about the question of social justice (see Figure 6). 66 percent of Social Democrats and 76 percent of Green Party voters are convinced that climate action can be done socially just. At the same time, only a third of AfD voters (34 percent) and around 53 percent of FDP and CDU/CSU voters think so.

Fig. 6: Agreement on the question of whether tackling climate change can be done in a socially just way (by party preference)



© briq policy monitor. Representative survey with 2,002 respondents.

Methods

We collected survey data from a representative sample of 2,002 study participants in Germany. To be eligible to participate in the study, respondents had to reside in Germany and be at least 18 years old. We collected the data in collaboration with the survey company Pureprofile. The experiment was computerized using the Qualtrics online survey tool. The data was collected between July 15 and 28, 2022. To ensure the highest possible quality of answers, all participants have to pass an attention check.

We used a stratified sampling approach to ensure that the samples represent the adult German population in terms of age, gender, and education. $48.25\,\%$ are male, the average age of the respondents is $51.8\,\%$ years, and the median net income per month is between 1,600 and 2,600 euros. 22.98% of respondents live in eastern Germany (including Berlin), and $32.57\,\%$ live in cities with more than $100,000\,\%$ inhabitants.

Survey items: Climate skepticism, excuses and climate donation

Climate Skepticism

	Question	Scale
Climate Change	Do you believe there is climate change?	Yes/No/Don't know
Man-made Climate Change	What do you think? Climate change is mainly a result of	Human activities/ Natural developments/ Neither nor, there is no climate change / Don't know
State of Research	What do you think: Which of the statements describe the assessments of scientists and researchers best?	Most scientists believe that man-made climate change is happening. / There are many different opinions in the scientific community on climate change. / Most scientists believe that man-made climate change is not happening.
Perceived Norms	More generally, to what extent do you trust scientists engaged in climate research?	Very strongly / strongly / moderately / Not much / Not at all

Excuses

The question "To what extent do you agree with the following statement?" was used to measure agreement with the following statements based on a four-point Likert scale (Strongly agree, Somewhat agree, Somewhat disagree, Strongly disagree). Wording of the questions, translated to English:

Aussage		
Germany should take every possible measure to combat climate change now.		
Even if other countries do little or nothing, Germany should combat climate change now.		
Even if there are more effective technical solutions in the future, Germany should combat climate change now.		
Every individual can contribute to combating climate change.		
Combating climate change can be done in a socially just way.		

Climate donation: Willingness to act against climate change

We measured the individual willingness with the help of a donation decision. Respondents were given 198 euros, which they could freely divide between themselves and a charitable organization that fights global warming. The amount donated was given to the award-winning charity atmosfair, which actively contributes to CO2 mitigation by promoting, developing, and financing renewable energies worldwide. Thereby, a donation saves CO2 that would otherwise be caused by fossil fuels. The amount of 198 euros was chosen because, by donating the full amount, respondents could offset the annual CO2 emissions of an average German citizen. It costs around 25 euros to offset one ton of CO2 emissions. According to World Bank estimates, the average inhabitant of Germany causes around 7.9 tons of CO2 emissions per year. We incentivize the decision by implementing the choices of ten randomly selected participants.

Additional measures

We collect detailed information on individual background characteristics. These include age, gender, education, employment status, net income, number of children, political party preferences, and state of residence. We further obtain an individual-level measure of altruism, patience and reciprocity following the methodology in the Global Preferences Survey.⁶

Falk, Armin, Anke Becker, Thomas Dohmen, Benjamin Enke, David Huffman, and Uwe Sunde. "Global Evidence on Economic Preferences." The Quarterly Journal of Economics 133, no. 4 (2018): 1645–1692.