

29 November 2023

04 Climate nonchalance

10 Climate action 12 Climate anxiety 17 Climate populism

Allianz Research

## Climate fatigue

Allianz Climate Literacy Survey 2023

# Executive Summary



Arne Holzhausen
Head of Insurance, Wealth and Trends Research
arne.holzhausen@allianz.com



Patricia Pelayo Romero Senior Economist Insurance and ESG patricia.pelayo-romero@allianz.com



Lorenzo Stucchi Research Assistant lorenzo.stucchi@allianz.com

Extreme weather events have almost become the new normal around the world, emphasizing the urgency of the global climate crisis. Yet, climate literacy has declined to an alarmingly low level. In the second edition of our Climate Literacy Survey, we asked a representative sample of 1,000 people in eight countries (Brazil, China, France, Germany, India, Italy, the UK and the US) about their knowledge of the risks of climate change, as well as climate policies and climate actions. We find that a staggering 48.2% of respondents could be categorized as having low climate literacy, and that this share has significantly increased by an average of 16pps in Germany, France, Italy and the UK, compared to our 2021 survey of five countries. In the 2023 edition, the share of respondents with low climate literacy ranged from 41.1% in China to as high as 58.0% in India. On the other end of the spectrum, only 7.9% of respondents show high climate literacy, ranging from 3.6% in India to 12.8% in Brazil.

Low climate literacy goes hand in hand with an increasing nonchalance about the impact of climate change. Only 50% of respondents are still aware of the threat of fatal damages if temperatures rise above 1.5C. Two years ago, this proportion was still 67% in the five countries surveyed. In a mirror image, 35% of all respondents are now convinced that nature and humans can adapt to higher temperatures without major consequences (2021: 20%). This belief is held by a larger share of respondents in India (52%) and China (49%). Moreover, only 31% of respondents realize that a drastic reduction in emissions is necessary to combat climate change.

On average, younger generations are less informed about climate issues than older ones. The share of younger respondents with low climate literacy is higher (Gen-Z: 52.2% vs Boomers: 45.9%), while those with high literacy is lower (Gen-Z: 6.1% vs Boomers: 9.3%). Only in one country does it seem to be confirmed that climate commitment and knowledge go hand in hand: In Italy, Gen-Z (8.4%) have the highest level of climate literacy.

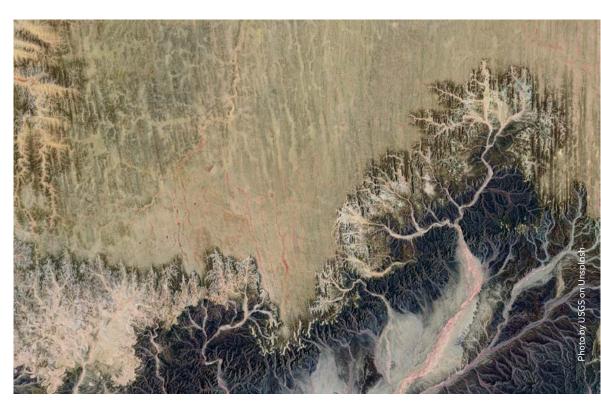
Climate literacy is a strong predictor for climate action at the individual level. Only a small minority of 6.9% of respondents say they do nothing at all in terms of climate protection. The majority of respondents take at least some action, with 10.8% being very active. Naturally, the higher the climate literacy, the higher the urge to act: 27% of respondents with high climate literacy say they are very active to reduce their carbon footprints, compared to just 6% of respondents with low climate literacy. We calculate that climate literacy (42%) is a better predictor for climate action than climate stress (33%) or feeling personally affected (15%).

In contrast to climate literacy, the level of climate anxiety is high. 76.8% of all respondents are concerned (anxious) or even alarmed (very anxious) about climate change and its consequences. Italy (86.7%) and Brazil (86.1%) report the highest shares. In the US, "only" two-thirds of respondents are (very) anxious. On the other hand, 12.6% of US respondents – the highest share in our survey – do not believe that climate change is ongoing. Contrary to the literature, our study shows no significant differences between the generations: Age is not a predictor of climate stress – nor is it statistically significant.

There is only a loose correlation between climate anxiety or stress and climate literacy. While the proportion of respondents with low climate literacy decreases almost linearly with the degree of climate anxiety, just under a third of sceptics have a basic understanding of climate change – and still deny it. Similarly, at the opposite end of the spectrum, just under half of the respondents alarmed by climate change have little to no knowledge of it. There is another, often overlooked component that creates diffuse fear: emotionality.

The emotional response towards climate change – coupled with an overall low level of climate literacy – is a double-edged sword. Emotionality can be used both for and against climate change. It makes climate policy susceptible to populism, simplifying complex issues and embedding them within the typical "us vs. them" narrative. As seen during the pandemic, key to this strategy is the disavowing of experts as climate change tends to be publicized as a technical issue and framed as an emergency. Although our survey shows a still good level of trust and goodwill towards experts, only 41% of those that had low climate literacy considered that the scientific community should provide advice, against 54% with average climate literacy and 73% with high climate literacy.

How should policymakers react? A three-pronged approach seems necessary: 1. Staying the course to provide industry and households with clear signals that the transition will be followed through. 2. Combining the consistent pursuit of targets with equally consistent social safeguards for the green transformation. The current policy of increasing costs but delaying the promised compensation, the so-called climate dividend ("Klimageld"), makes it far too easy for climate populists to sway public opinion. 3. Fighting for better climate literacy, even if – or rather because – emotionality plays a major role in climate issues.



## Climate nonchalance

Two years ago, we conducted a representative survey in five countries to measure climate literacy (see box). We were shocked by the results: Only 14% of respondents had a high level of climate literacy at the time; by contrast, more than a third were functionally climate illiterate. This October, we repeated the experiment and the result is devastating: Climate literacy has continued to decline – and significantly so. In Germany, France, Italy and the UK, the share of participants with a low level of climate literacy has risen by an average of 16pps, while the other two categories have declined accordingly. The only exception is the US, where climate literacy has hardly changed, though it remains at a low level (Figure 1).

What explains this deterioration? There is no shortage of information about climate change. There is also more than enough "educational material" – the number of extreme weather events has increased significantly in recent years, and there is widespread scientific agreement on their connection with climate change. In addition, the topic is almost constantly on the political agenda, with new targets and measures being announced and adopted in quick succession. Moreover, there have even been regular protests to demand more action to protect the climate. However, the omnipresence of the topic might be having the opposite effect, with overstimulation leading to indifference or ignorance, reducing real engagement with the issue. The constant rise of geopolitical developments and risks aggravates the issue further.

<sup>&</sup>lt;sup>1</sup> <u>Allianz Climate Literacy Survey: Time to leave climate neverland</u>

25
20
15
10
5
0
-5
-10
-15
-20

Mo Germany

France

Italy

US

UK

Figure 1: Climate fatigue Climate literacy 2021 and 2023, differences by literacy level in pp

### Measuring climate literacy

To determine their climate literacy, respondents had to answer a total of ten questions covering both scientific aspects (What is the impact of the rise in temperature? How can the rise be effectively combated?) and political ones (What is COP? What is the IPCC's task?). In addition, we included simple knowledge questions about which countries produce the highest emissions, for example. All ten questions and answers can be found in the appendix.

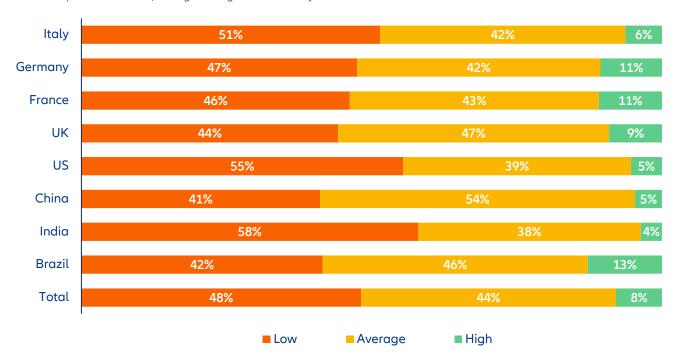
On average, the participants answered 3.6 questions correctly – compared to our previous edition when the average was 4.2. To be consistent with our previous calculation of the index, and for the year-on-year comparison, respondents with four or more correct answers were categorized as having "average climate literacy"; respondents with more than seven correct answers were considered "highly climate literate", while three or fewer correct answers was considered an indicator "low climate literacy".

The distribution of the answers largely follows a (skewed) normal distribution. While 18.8% of the respondents gave four correct answers and 14.8% gave five correct answers, the percentage decreased significantly towards the edges. However, the percentage of participants with not a single correct answer (7.1%) was significantly higher than that of participants who were able to answer all ten questions correctly (0.1%). In China, India and Italy, no participant managed to answer all questions correctly.

This dialectic finding is corroborated by the three countries that we have included in the survey for the first time this year. Brazil, China and India fit seamlessly into the picture of climate fatigue: In these countries, too, climate literacy is shockingly low. The only small ray of hope is Brazil, where the proportion of respondents with a high level of climate literacy is the highest of all the

countries surveyed – although at just under 13% it is still at a modest level. Suffering from record-high temperatures, flooding and droughts, as well as being on the frontlines of deforestation in the Amazon, might have made the issue hit closer to home (Figure 2). India has also faced extreme weather events in recent years but climate literacy remains worryingly low.

**Figure 2:** Nobody talks about the climate anymore. Share of respondents with low, average and high climate literacy in %

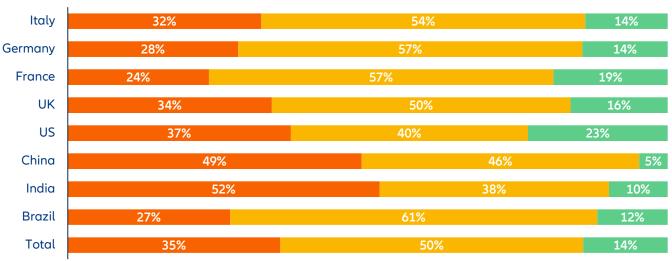


Sources: Qualtrics, Allianz Research

In no other question is climate fatigue more evident than when it comes to the effects of rising temperatures. Although 50% of respondents are still aware of the threat of fatal damages if temperatures rise above 1.5C, two years ago this proportion was still 67% in the countries surveyed. In a mirror image, 35% of respondents are now convinced that nature and humans can adapt to higher temperatures without major consequences (2021: 20%). In view of the increasing number of natural disasters, this rampant lack of concern is alarming – many simply seem to be closing their eyes to reality. Surprisingly,

this proportion is the highest in India (52%) and China (49%) – two countries that are arguably particularly affected by climate change. The level of development seems to have no influence here – at the other end of the spectrum are the Brazilian respondents (27%). At least our survey does not suggest that there is a North-South divide on climate issues, with respondents from developing countries viewing climate policy as just another tool to hinder the rise of the Global South. Climate literacy is not a question of wealth (Figure 3).

**Figure 3:** Alarming nonchalance. Rising temperatures pose no existential threat. Even if the rise exceeds 3°C, humans and nature can adapt. Do you agree with this statement? Answers in %

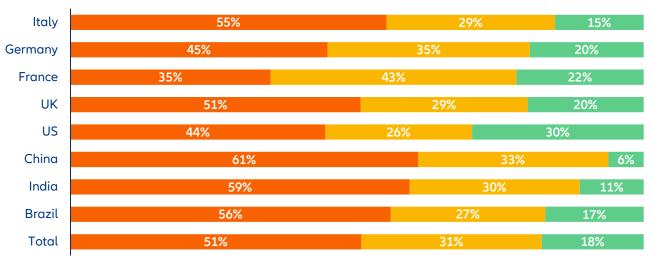


- Yes, change is the only constant this applies to climate as well
- No, even at a temperature rise of more than 1.5°C irreparable damages loom, with unforeseen economic and social consequences
- I don't know

Furthermore, the widespread lack of knowledge affects all aspects of climate literacy, from scientific understanding and climate policy institutions to the assessment of the carbon footprint. For example, 51% of respondents are convinced that stopping the rise in emissions is enough to avoid a disastrous climate crisis, ranging from 35% in France to 61% in China. On the other hand, only 31% of respondents (US: 26%, France: 43%) realize that a drastic reduction in emissions is necessary. There is also widespread ignorance about the urgency of effective measures: Only 16% of respondents correctly estimate the remaining time (six years) after which the CO2 budget compatible with a temperature rise of 1.5C would be used up at the current rate of emissions; here the diffe-

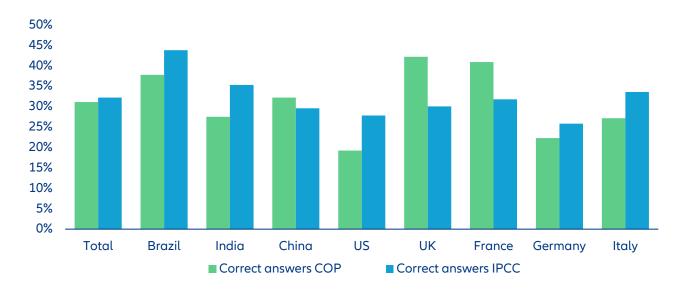
rences between the countries surveyed are relatively small. The situation is hardly any better when it comes to climate policy: Only 31% and 32% of respondents were familiar with the COP and the IPCC, respectively. Surprisingly, this lack of knowledge is particularly high among German respondents, with only 22% (COP) and 26% (IPCC) being able to tick the correct box. And with 34% of respondents, a majority think that China is the largest CO2 emitter per capita, including the Chinese respondents themselves. At least most American respondents (36%) are better able to assess their CO2 footprint and gave the correct answer (the US, Figures 4 & 5).

**Figure 4:** Grossly underestimating the challenge. If the world manages to stabilize CO2-emissions levels, damaging consequences of climate change can be avoided. Answers in %



- Yes, key is to break the past trend of continuous increases of annual emissions
- No, we must reduce annual emissions drastically below zero, thus actively extracting and storing CO2 from the atmosphere
- I don't know

Figure 5: Institutional ignorance.
What is the COP? The Intergovernmental Panel on Climate Change (IPCC) plays an important role in global climate policy. Which one?
Correct answers in %

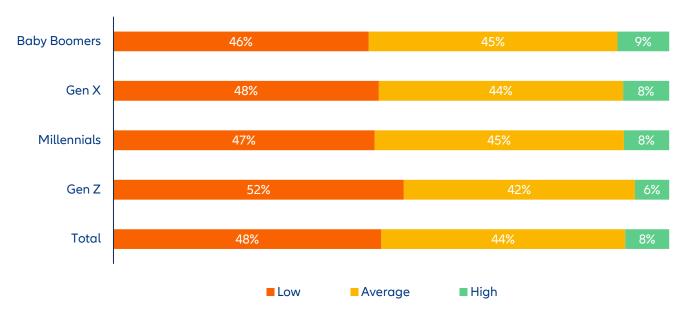


### Climate rebels (without a clue)

The climate protest movement has mainly been driven by young people, which is hardly surprising given that it is mainly the younger generations who will have to continue to endure the disastrous consequences of climate change. They have more skin in the game. The best-known example is certainly Greta Thunberg and the Fridays for Future movement. Does this greater engagement also

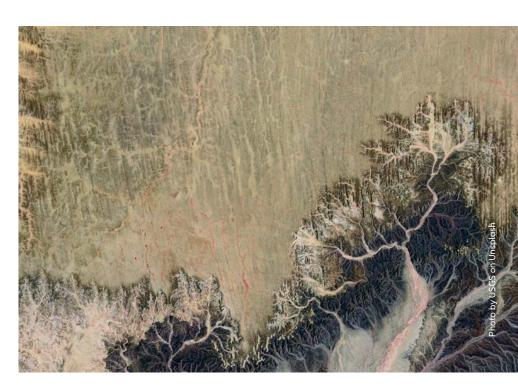
go hand in hand with greater climate literacy? Not quite. On average, our survey shows that the younger generations are less informed about climate issues than the older ones: The share of respondents with low climate literacy is higher, while those with high literacy is lower. However, the differences between the generations are not very pronounced overall (Figure 6).

Figure 6: Rebels without a clue Share of respondents with low, average and high climate literacy, by age in %



Source: Qualtrics, Allianz Research

However, we find no uniform pattern in the distribution of climate literacy by age between the countries. Baby Boomers lead the way in Germany (12.2%), France (12.4%) and the UK (13.5%) with the highest proportion of respondents with high climate literacy. In China (6.8%), India (4.3%) and the US (7.0%), on the other hand, it is Gen X. Only in Brazil and Italy does it seem to be confirmed that climate commitment and knowledge go hand in hand: In Brazil, Millennials (14.9%) have the highest level of climate literacy, while in Italy it is Gen-Z (8.4%). Nevertheless, the level of climate knowledge remains alarmingly low, even when differentiated according to the age of the respondents.



## Climate action

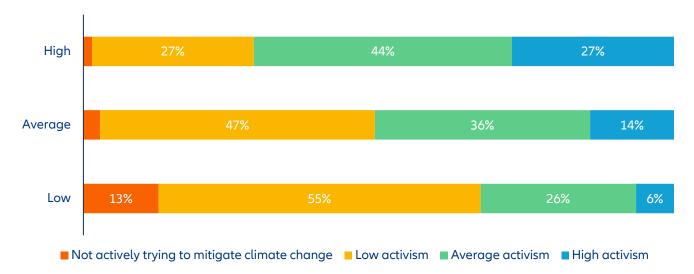
Climate literacy is in decline – but it matters now more than ever. Because climate literacy is a decisive lever for climate action at the individual level – without which the green transformation is doomed to fail.

To this end, we presented the participants with a list of climate-mitigating measures – from using renewable energy supplies and electric vehicles over recycling and diet changes to carbon offsetting and ESG investments – and created four personas of climate activism based on their responses: Not active (no action taken), low climate activism (four reported climate actions or less), average activism (four to seven actions) and high activism (more than seven actions, Figure 7). It is clear that only a small minority of 6.9% of respondents do nothing at all in terms of climate protection. The majority of respondents take at least some action, and 10.8% of respondents can be categorized as very active climate protectors. What is more interesting, however, is that the degree of activism is strongly correlated with climate literacy.

To try to shed light onto what might be an accurate predictor of climate action, we ran a logistic regression on our sample to assess the importance of climate literacy and climate anxiety, and controlled for demographic variables. We found that the relative importance of climate literacy as a predictor was 42%, compared to 33% for climate anxiety. 15% was explained by whether respondents felt personally affected by climate change and the rest by the control variables (adjusted r-squared: 20.1%). While we would need a different approach to claim causality, climate literacy is still associated with higher levels of climate action, as we found in our first iteration of the survey in 2021<sup>2</sup>. However, as levels of climate literacy have deteriorated, the rational response alone might not be sufficient; the climate emotional response has to play a role here, too: According to our estimations, people need to perceive themselves as personally affected by the climate crisis to increase their level of climate action. But by the time this occurs, it could be too late.

<sup>&</sup>lt;sup>2</sup> Allianz Climate Literacy Survey: Time to leave climate neverland

**Figure 7:** And... action please! Self-reported climate mitigation activism, by levels of climate literacy.



Governments and companies need to do the lion's share of the work to achieve a carbon-neutral future, but ordinary people also need to make changes in their lives. Education is necessary to raise this awareness among the public. But new meta research that examines environment-related behaviors such as recycling or choosing a mode of transportation found that the most effective interventions ranged from education to financial incentives and social comparisons.<sup>3</sup> Therefore, knowing what is healthy or right or environmentally friendly might be not enough. The solution is to supplement education with "social pressure": Environmentally friendly norms should become the social norm to encourage more climate action.

<sup>&</sup>lt;sup>3</sup> Magnus Bergquist et al. (2023) Field Interventions for Climate Change Mitigation Behaviors: A Second-Order Meta-Analysis. National Academy of Sciences USA, Vol. 120, No. 13, Article No. e2214851120.



# Climate anxiety

In our survey, we also asked respondents how they were affected by climate change, both in a very concrete sense – i.e. experiencing it "first-hand" – and in a more abstract sense – the extent to which they have any anxiety or worries about climate change. The vast majority of respondents had already experienced the effects of climate change first-hand, albeit generally not very strongly. Only around a quarter of respondents stated that they were not personally affected or hardly affected at all (Figure 8). However, the differences between the countries are considerable. Respondents

in Italy, Brazil and India are the most affected. At the other end of the scale – with the highest proportion of respondents who do not or hardly see themselves affected – are the US, the UK and Germany. While this seems understandable in the case of the latter two, where the overall impact of climate change – despite recent floodings and heatwaves – is still relatively low, it is surprising in the case of the US, a country that is already feeling the full force of climate change (Figure 9).

**Figure 8:** Reality bites. In your country, do you feel personally affected by the consequences of climate change? Answers by country in %

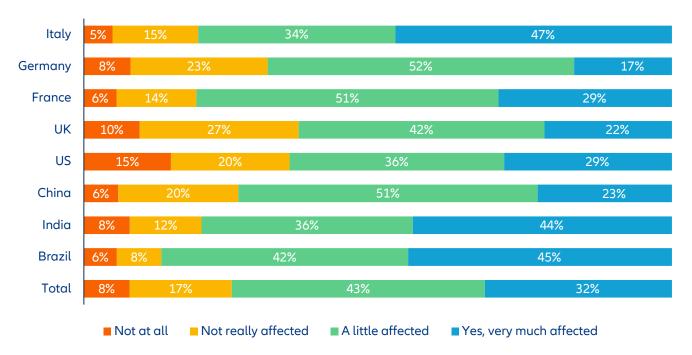
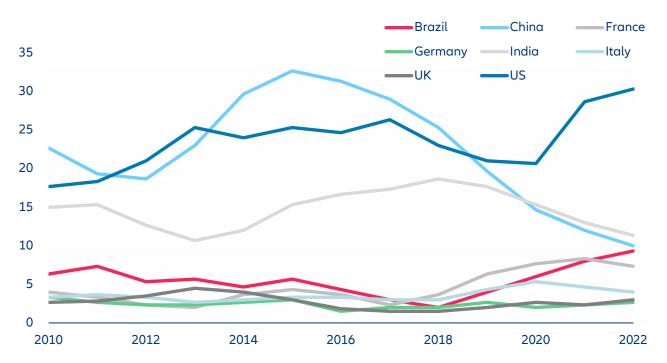


Figure 9: Californication Climate-related disaster frequency, rolling average (last three periods).



Sources: IMF Climate Change Dashboard, Allianz Research

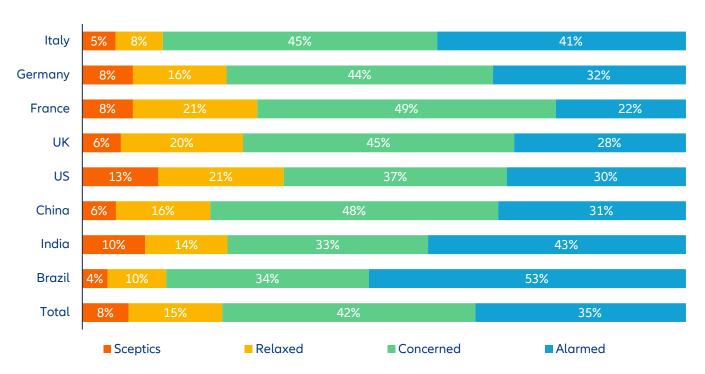
What about climate anxiety? There is a plethora of research on how climate change affects mental health and emotional wellbeing. Contending with a future in which rising temperatures will lead to massive climate disruptions can understandably evoke both fear and stress. As an extreme example, supported by literature, there is a clear relationship between increased temperatures and the number of suicides. With this in mind, we asked our respondents whether they felt personally worried about climate change and its consequences. Based on their level of climate stress, we built four "personas": the sceptics, i.e. those that outright report not believing in climate change; the relaxed, i.e.

those that believe in climate change, but feel unaffected by it; the concerned, i.e. those that report to feel anxiety because of the unpredictability of climate crisis and finally the alarmed, i.e. those that feel the urgency and the need to act fast.

The distribution of these personae among respondents is similar to that seen regarding the personal experience of climate damage. Brazil, India and Italy have the highest proportion of respondents that fall under the alarmed category. On the other hand, the proportion of the sceptics is highest in the US, albeit at a quite low level of just under 13% (Figure 10).

Figure 10: Stress levels

Are you personally worried about climate change and its consequences (heat waves, drought, rising sea levels, etc.)? Answers by countries in %

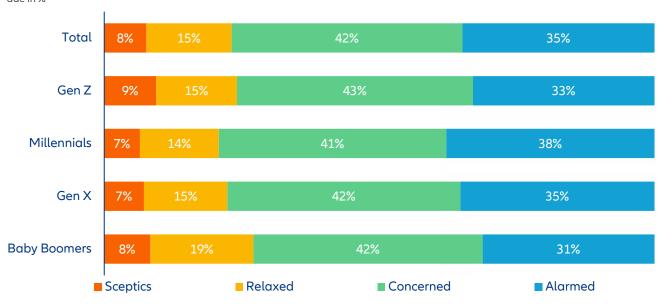


<sup>&</sup>lt;sup>4</sup> Lawrence, E. Thompson, R. Fontana, G. et al. (2021). The impact of climate change on mental health and emotional wellbeing: current evidence and implications for policy and practice. <a href="https://doi.org/10.25561/88568">https://doi.org/10.25561/88568</a>

Our study shows no significant differences between the generations, even if it is assumed in the literature that the so-called "eco-anxiety" is particularly exacerbated among younger generations as they will bear the burden of climate-change impacts. While 33% of Gen-Z respondents, for example, are among the alarmed, the figure for Gen-X is 35%. In fact, the proportion of the sceptics is highest among Gen-Z respondents (9.5%). Overall, however, the differences between the generations in this respect are relatively small: Age is not a predictor of stress – nor is it statistically significant (Figure 11).

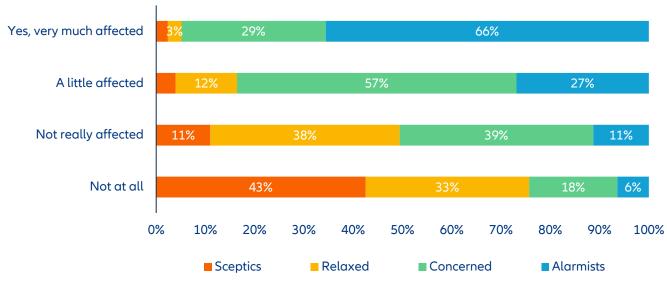
If we compare climate stress with the reported perception of being affected by climate change, we find a positive and statistically significant correlation, though the latter only explains a very small portion of climate stress. This suggests that the more affected a population feels by climate change, the more worried they are. Conversely, the more unaffected they perceive themselves to be by the climate crisis, the less they report to feel stressed about it. The correlation is clear, causality is unconfirmed (Figure 12).

**Figure 11:** No generation gap. Are you personally worried about climate change and its consequences (heat waves, drought, rising sea levels, etc.)? Answers by age in %



Sources: Qualtrics, Allianz Research

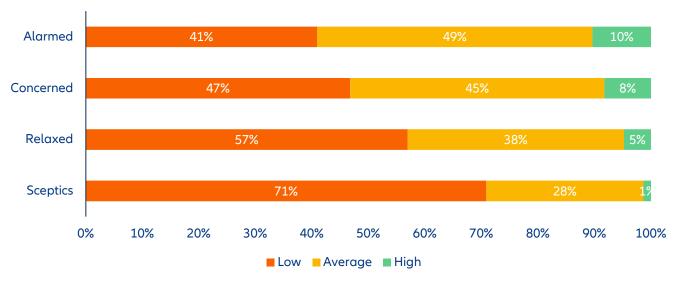
**Figure 12:** Disaster training In your country, do you feel personally affected by climate change? Stratified by level of climate stress, in %



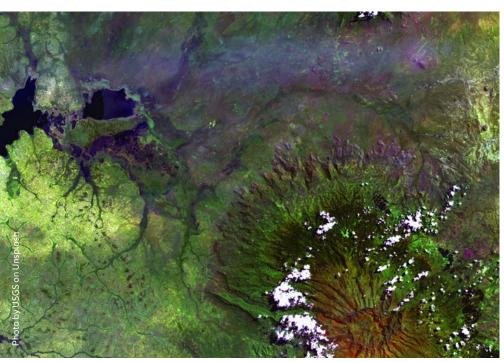
This result is not surprising. Personal experience is the best teacher. The correlation with the level of climate literacy is therefore more interesting (Figure 13). This shows that the proportion of respondents with low climate literacy decreases almost linearly with the degree of climate anxiety. This was to be expected. Understanding the workings of climate change is a good prevention against an overly reckless view of the world: the dangers of climate change are too real and too great. However, it is not an antidote. Just under a third of sceptics have a basic understanding of climate change

– and still deny it. Similarly, at the opposite end of the spectrum, just under half of the alarmed respondents have little to no knowledge of climate change. Therefore, it is by no means the case that climate knowledge alone leads to great anxiety. There also seems to be another component that creates diffuse fear: Emotionality is an underappreciated predictor of long-lasting attitudes, which is key to building – and to changing – sticky opinions.<sup>5</sup>

**Figure 13:** The more you know Are you personally worried by climate change and its consequences? Stratified by levels of climate literacy, in %



<sup>&</sup>lt;sup>5</sup> Rocklage, M. D., & Luttrell, A. (2021). Attitudes based on feelings: Fixed or fleeting? Psychological Science. Advance online publication. https://doi.org/10.1177/0956797620965532



# Climate populism

But this emotional response towards climate change

- coupled with an overall low level of climate literacy
- is a double-edged sword. Emotionality can be used both for and against climate change. Relying on the emotional response that climate change evokes might work for those that are inclined to believe in making major lifestyle changes across the globe, but it also provides massive potential for misinformation. Climate policy can thus easily become the plaything of populism and extremism, whose essence is the manipulation of feelings and opinions.

Populism in general has two fundamental pillars: support for the "ordinary" people and criticism of "the elite". The approach can be applied to climate change by simplifying complex issues and embedding them within the "us vs. them" narrative. As seen during the pandemic, key to this strategy is the disavowing of experts as climate change tends to be publicized as a technical issue and is framed as an emergency. This urgency conveys to the public a loss of agency: the "politics of necessity" deny the actors the capacity to choose freely between different options. It is quite easy for populist actors to attack this seeming loss of agency, the "policies of prohibition", and to spread a

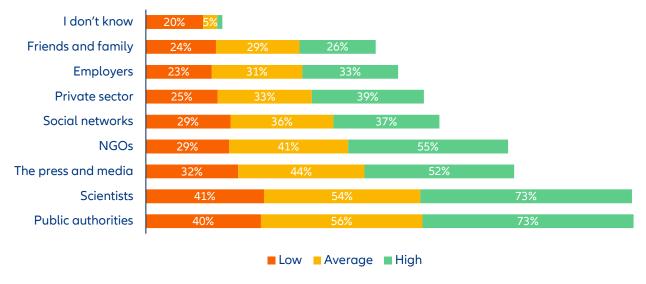
discourse of malfunction of the system, conflating policies to tackle climate emergency with "elitism"<sup>6</sup>.

This strategy finds an echo in the backlash against the ESG concept - and in our survey. We asked our respondents who they believe should advise and support citizens in the energy transition (Figure 14). The results show clear differences between the climate literacy levels. While only 41% of those that had low climate literacy considered that the scientific community should provide advice, this figure rises to 54% for the average climate literate and to 73% with the highly climate literate. Similar results can be observed for the preference of "public authorities". While there is less trust in the press, NGOs and the private sector across all levels of climate literacy, at least with social networks this relative low level of trust comes as a relief. Overall, there is still a good level of goodwill towards experts and officials. But the fact that a majority of those with the least knowledge and the most to learn seem to mistrust everyone when it comes to climate issues is worrying this is a fertile ground for populist actors. In this context, defending the expert stance should be a focus area of policymakers and those engaged in driving forward the green agenda.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> White, J. (2023). What makes climate a populist issue? Grantham Research Institute on Climate Change Economics. Policy Working Paper No. 426 ISSN 2515-5709 (Online)

<sup>&</sup>lt;sup>7</sup> Hilson, C. (2019). Climate Populism, Courts, and Science. Journal of Environmental Law. https://doi.org/10.1093/jel/eqz021

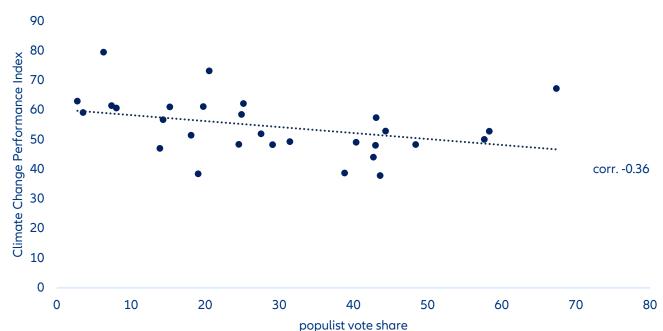
**Figure 14:** Commanding trust Who do you think should advise and support citizens in the energy transition? Select all that apply.



Sources: WTO, Allianz Research

However, the challenge to keep climate policy on course is aggravated by incumbent governments that have at best managed inadequate actions given the scale and urgency of the climate crisis. A case in point is carbon pricing. This should signal the real costs of emissions and thus incentivize abatement measures. However, there is a prevailing tendency to restrict the price mechanism to "protect" the people. But this does climate policy a disservice: The consequence are prices that are too low and lead to inadequate adaptation measures, slowing the pace of the green transition. At the same time, many of those affected are nevertheless angry because of the higher price. This is precisely the policy that promotes "climate populism": raising costs without corresponding results. This can easily lead to a vicious circle: criticism of climate measures leads to them being withdrawn or watered down; examples of this can be found recently in almost all EU countries.<sup>8</sup> However, when climate targets become political bargaining chips in this way, the character of climate measures as "politics of necessity" is undermined; the scientific claim is called into question by the actors themselves – grist to the populists' mill. This can already be measured: For EU countries and the UK, we find that a higher populist vote share in the last elections relates to a lower Climate Change Performance Index (CCPI), which ranks countries based on progress and ambition in pps compared to an ideal scenario of reaching set climate targets in 2022 (Figure 15).

<sup>8</sup> Allianz Research (2023) Economic scenarios for Israel – Hamas conflict, rolling back on climate goals, and drought at Panama Canal disrupts trade



**Figure 15:** Climate populism Correlation between populist party vote share in last election and climate change performance index

Sources: Germanwatch, European Commission, ParlGov and World Bank, Allianz Research.

In the upcoming heavy election year, climate change has the potential to become a political turning point and an area of concern as the use of populist rhetoric becomes more common when discussing mitigation policies. How can this be counteracted? Despite the challenges faced during the transition to climate neutrality, it is crucial for politicians to stay the course to provide industry and households with clear signals that the transition will be followed through. This is the best way to prevent the disengagement of the public, as clear and common targets can counter the conception of the net-zero lifestyle as unconventional and elite. Therefore, maintaining strategic and systemic legal certainty for green investments is key. Perhaps consideration should even be given to securing climate targets under constitutional law - similar to the debt brake – in order to remove them from the daily political bartering. But climate policy has two sides:

The consistent pursuit of targets must go hand in hand with equally consistent social safeguards for the green transformation. Many people are overwhelmed by the associated costs. They deserve protection in the form of compensatory social transfers according to need. As with the carbon price, the price signal should not be watered down, but social hardship should be cushioned. The current policy of increasing costs but delaying the promised compensation, the so-called climate dividend ("Klimageld"), makes it far too easy for the climate populists. There is an urgent need for action here. A social climate dividend is more convincing than a thousand Sunday speeches that climate policy is not a project of the "elites" and takes the wind out of the sails of the climate populists more effectively than any educational campaign.

### **Appendices**

### **A Survey Data**

### Overall responsibility for methods:

Allianz Research, Allianz SE

### Planning and drawing the sample:

Qualtrics

### **Target groups surveyed:**

- French resident population, age 18 and over in France
- German resident population, age 18 and over in the Federal Republic of Germany
- Italian resident population, age 18 and over in Italy
- UK resident population, age 18 and over in UK
- US resident population, age 18 and over in US
- China resident population, age 18 and over in US
- India resident population, age 18 and over in US
- Brazil resident population, age 18 and over in US

### **Number of respondents:**

• 7,843 persons (980 from Brazil, 960 from India, 991 from China, 956 from France, 992 from Germany, 983 from Italy, 988 from the UK, 993 from the US)

### Sampling method:

- Representative quota sampling
- Qualtrics was given quotas for how many people to survey and which criteria to use in selecting respondents.

The quotas were distributed in accordance with official statistics among sex, age groups and education.

### **Representativeness:**

A comparison with official statistics shows that the survey data overall corresponds to the total population age 18 and over in the eight countries.

### Type of survey:

Web-based survey

### Date of survey execution:

05.10.2023 - 20.10.2023

### **B** Climate questions

#### 1. What is the COP?

a.UN initiative for distributing funds to reduce the impact of climate change on poverty.

b.an annual formal meeting to discuss climate change and establish mitigation actions.

c. an EU initiative against organized and war crimes

d.I don't know.

#### 2. What does Net-Zero mean?

a.monetary strategy of increasing interest rate to fight inflation.

b.no greenhouse gas emission by a specific date, typically 2050

c. carbon emission neutrality, stabilization of greenhouse gas concentrations in the atmosphere by a specific date, typically 2050

d.I don't know.

### 3. The Intergovernmental Panel on Climate Change (IPCC) plays an important role in global climate policy. Which one?

### a.providing objective scientific information relevant to understanding climate change

b. deciding on global climate policies, particularly setting the global carbon prize

c. Host of the UN climate justice court which arbitrates climate disputes between states

d.I don't know.

#### 4. What is the carbon market?

- a. The supply channel of the EU backed gas-buying cartel that aims to supply affordable natural gas to EU countries struggling to get supply because of the war in Ukraine.
- b.A trading system through which emitters may buy or sell units of greenhouse-gas emission allowances to meet national restrictions on total emissions.
- c. An online marketplace where you can buy recycled carbon fiber and carbon black.

d.I don't know.

### 5. Rising temperatures pose no existential threat. Even if the rise exceeds 3°C, humans and nature can adapt. Do you agree with this statement?

a.yes, change is the only constant - this applies to climate as well.

b.no, even at a temperature rise of more than 1.5°C irreparable damages loom, with unforeseen economic and social consequences.

c. I don't know.

### 6. Climate change cannot be stopped. Average temperatures will continue to increase in the near future. The only thing we can possible do is to limit the increase to 1.5°C.

a.true, past CO2-emissions remain in the atmosphere for centuries and heat the climate with a delay of more than a decade.

b.that's not true, if we reduce CO2-emissions now, there will be no further rise in temperatures.

c. I don't know.

### 7. If the world manages to stabilize CO2-emissions levels, damaging consequences of climate change can be avoided.

a.yes, key is to break the past trend of continuous increases of annual emissions.

b.no, we must reduce annual emissions drastically below zero, thus actively extracting and storing CO2 from the atmosphere.

c. I don't know.

### 8. At current rates, after how many years we will have burnt our CO2-budget to limit the temperature rise to 1.5C? a.6 years

b.11 years

c. 16 years

d.24 years

e. I don't know.

### 9. Which country/region causes the highest absolute CO2-emissions per year?

### a.China

b.USA

c. EU

d.India

e. I don't know.

### 10. Which of the four countries causes the highest per-capita CO2-emissions per year?

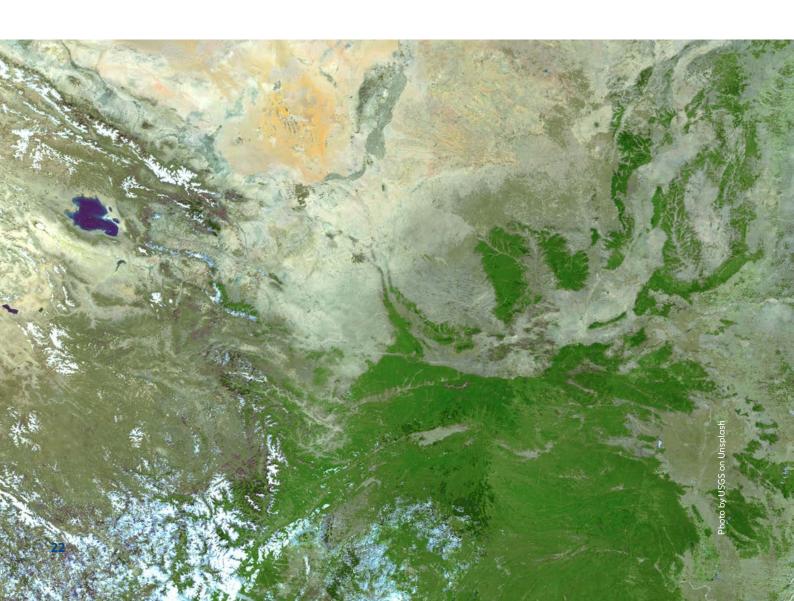
a.China

### b.USA

c. EU

d.India

e. I don't know.





### **Chief Economist Allianz SE**



ludovic.subran@allianz.com

### Head of **Economic Research Allianz Trade**



ana.boata@allianz-trade.com

### Head of Insurance, Wealth & Trend Research Allianz SE



Arne Holzhausen arne.holzhausen@allianz.com

### **Macroeconomic Research**



Maxime Darmet Cucchiarini Senior Economist for US & France maxime.darmet@allianz-trade.com



Roberta Fortes Senior Economist for Ibero-Latam roberta.fortes@allianz-trade.com



Jasmin Gröschl Senior Economist for Europe jasmin.groeschl@allianz.com



Françoise Huang Senior Economist for Asia Pacific <u>francoise.huang@allianz-trade.com</u>



Maddalena Martini Senior Economist for Italy & Greece maddalena.martini@allianz.com



Luca Moneta Senior Economist for Africa & Middle East Senior Economist for Middle East & <u>luca.moneta@allianz-trade.com</u>



Manfred Stamer **Emerging Europe** manfred.stamer@allianz-trade.com

### **Corporate Research**



Ano Kuhanathan Head of Corporate Research ano.kuhanathan@allianz-trade.com



Aurélien Duthoit Senior Sector Advisor, B2C aurelien.duthoit@allianz-trade.com



Maria Latorre Sector Advisor, B2B maria.latorre@allianz-trade.com



Maxime Lemerle Lead Advisor, Insolvency Research maxime.lemerle@allianz-trade.com

### Capital Markets Research



Jordi Basco Carrera Lead Investment Strategist jordi.basco\_carrera@allianz.com



Bjoern Griesbach Senior Investment Strategist bjoern.griesbach@allianz.com



Pablo Espinosa Uriel Investment Strategist, Emerging Markets & Alternative Assets pablo.espinosa-uriel@allianz.com

### Insurance, Wealth and Trends Research



Michaela Grimm Senior Economist. Demography & Social Protection michaela.grimm@allianz.com



Patricia Pelayo-Romero Senior Economist, Insurance & ESG patricia.pelayo-romero@allianz.com



Kathrin Stoffel Economist, Insurance & Wealth kathrin.stoffel@allianz.com



Markus Zimmer Senior Economist, ESG markus.zimmer@allianz.com

### **Recent Publications**

```
17/11/2023 | What to watch
16/11/2023 | Global construction outlook: Liquidity cracks
10/11/2023 | What to watch
09/11/2023 | India: A rising star
03/11/2023 | What to watch
31/10/2023 | Greening global trade, one container at a time
27/10/2023 | What to watch
26/10/2023 | A bolt from the blue? Amplified social risk ahead
19/10/2023 | What to watch
18/10/2023 | Global Insolvency Outlook 2023-25
13/10/2023 | What to watch
12/10/2023 | Going together and going far - Powering Africa's economic and social potential
04/10/2023 | Global Economic Outlook 2023-2025: The last hike?
26/09/2023 | Allianz Global Wealth Report 2023: The next chapter
21/09/2023 | All eyes on fiscal in the Eurozone
14/09/2023 | Germany needs more than a plan
12/09/2023 | Sector Atlas
07/09/2023 | A slow landing for china
05/09/2023 | Is diversification dead?
04/08/2023 | Global boiling: Heatwave may have cost 0.6pp of GDP
01/08/2023 | Critical raw materiels- Is Europe ready to go back to the future?
28/07/2023 | US & Eurozone growth defying gravity
27/07/2023 | Playing with a squared ball: the financal literacy gender gap
21/07/2023 | US immaculate disinflation: How much should we thank the Fed for?
20/07/2023 | Back to the beach: Tourism rebound in Southern Europe?
13/07/2023 | A new Eurozone doom loop?
12/07/2023 | European Retail: a cocktail of lower spending and tighter funding
06/07/2023 | Eurozone convergenve: two steps foward, one step back
04/07/2023 | More emission, than meet the eye: Decorbonizing the ICT sector
29/06/2023 | De-dollarization? Not so fast...
27/06/2023 | Toasted, roasted and grilled? Walking the talk on green monétary policy
20/06/2023 Climbing the wall of worries - Summer Economic Outlook
16/06/2023 | Automotive industry unpugged?
14/06/2023 | Biodiversity loss part II: portfolio impacts and A quantative case study on pollination abatement measures
09/06/2023 | Past the peak – European corporate margins down again?
07/06/2023 | The right to work versus the right to retire
02/06/2023 | Sector vulnerability to rising financing costs
01/06/2023 | Allianz Trade Global Survey 2023: Testing resilience
```

Discover all our publications on our websites: Allianz Research and Allianz Trade Economic Research

#### **Director of Publication**

Ludovic Subran, Chief Economist Allianz SE Phone +49 89 3800 7859

### **Allianz Group Economic Research**

https://www.allianz.com/en/economic\_research Königinstraße 28 | 80802 Munich | Germany allianz.research@allianz.com



@allianz



in allianz

#### **Allianz Trade Economic Research**

http://www.allianz-trade.com/economic-research 1 Place des Saisons | 92048 Paris-La-Défense Cedex | France research@allianz-trade.com



@allianz-trade



allianz-trade

#### **About Allianz Research**

Allianz Research comprises Allianz Group Economic Research and the Economic Research department of Allianz Trade.

### Forward looking statements

The statements contained herein may include prospects, statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events), (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) per-sistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) curren-cy exchange rates including the EUR/USD exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) general compet-itive factors, in each case on a local, regional, national and/or global basis. Many of these factors

### No duty to update

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law. may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences.