

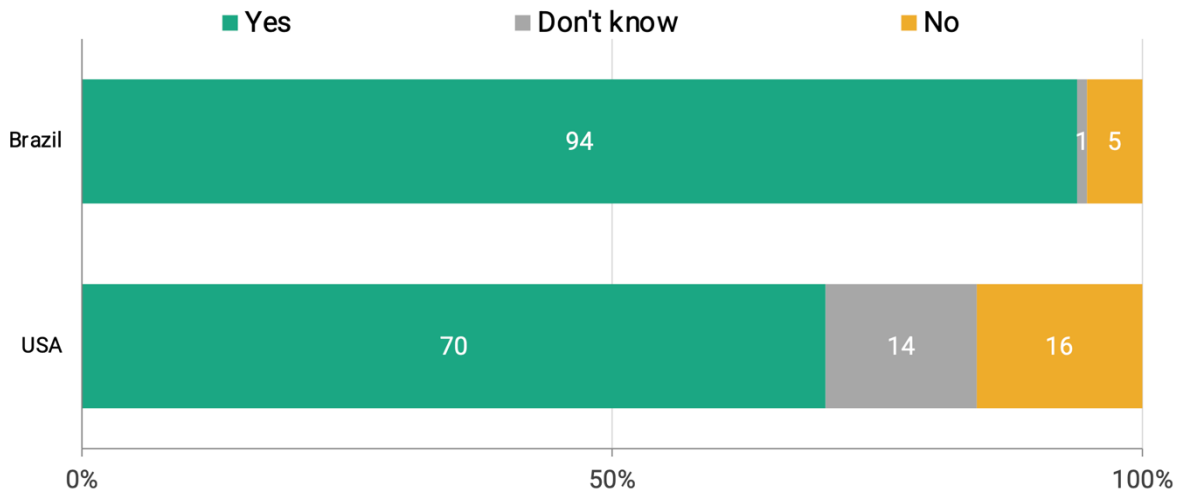
**Climate Change in the Brazilian and American Minds: A Comparative Report**  
**Yale Program on Climate Change Communication**  
**May 8, 2023**

This appendix reports comparative results from two nationally representative surveys conducted in 2022, in Brazil and the United States by the Yale Program on Climate Change Communication with ITS (Brazil) and the George Mason University Center for Climate Change Communication (USA). Several questions were asked in both countries, allowing relatively direct comparisons, with slight wording variations.

**Belief that Global Warming is Happening**

Respondents in both countries were asked if they think that global warming is happening. Nearly all respondents in Brazil said yes (94%) global warming is happening compared to 70% in the United States.

**Belief that global warming is happening**



Recently, there has been a lot of talk about global warming, that is, the increase of the world average temperature over the last 150 years, which contributes to causing climate change on the planet. In your opinion, is global warming happening?



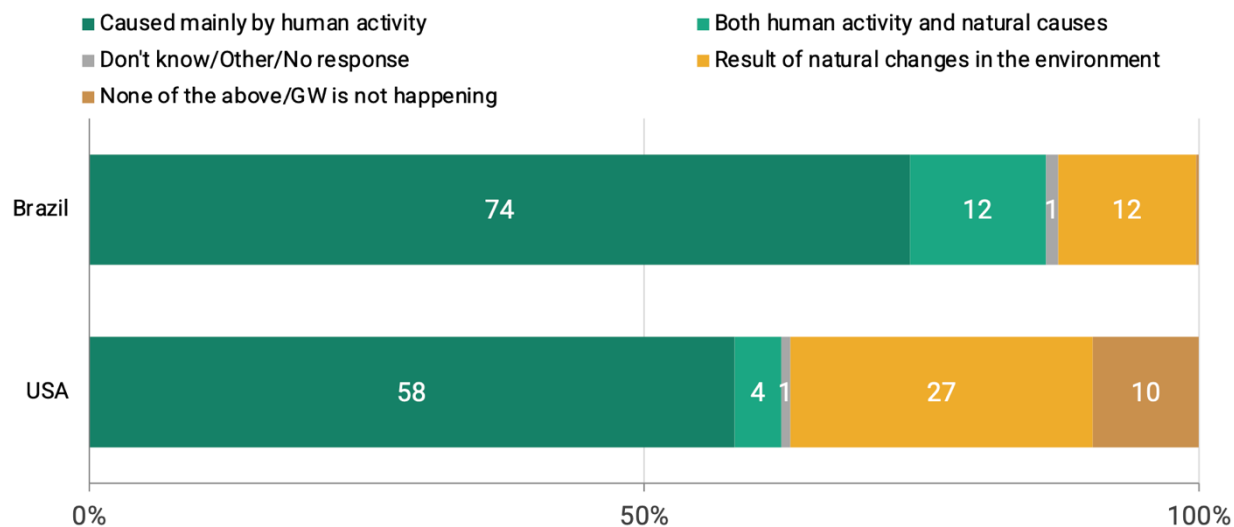
Brazil: November 2022 – January 2023. Base: 2,600 Brazilian adults.  
USA: December 2022. Base: 1,085 American adults.

## Belief that Global Warming is Mostly Caused by Human Activities

The Intergovernmental Panel on Climate Change’s Sixth Assessment [report](#) (2021), written and reviewed by thousands of climate experts worldwide, states: “It is unequivocal that human influence has warmed the atmosphere, ocean and land.”

A large majority of Brazilians say that global warming is caused mainly by human activity (74%), while relatively few say it is just due to natural changes in the environment (12%) or both human activity and natural causes (12%). By contrast, a smaller majority in the U.S. say that global warming is caused mainly by human activity (58%). A sizable minority in the U.S. say that global warming is due to natural changes (27%), while fewer say it is due to both human activity and natural causes (4%).

### Belief that global warming is mostly caused by human activities



In your opinion, is global warming mainly caused by human activity or is it a result of natural changes in the environment?

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USA: December 2022. Base: 1,085 American adults.



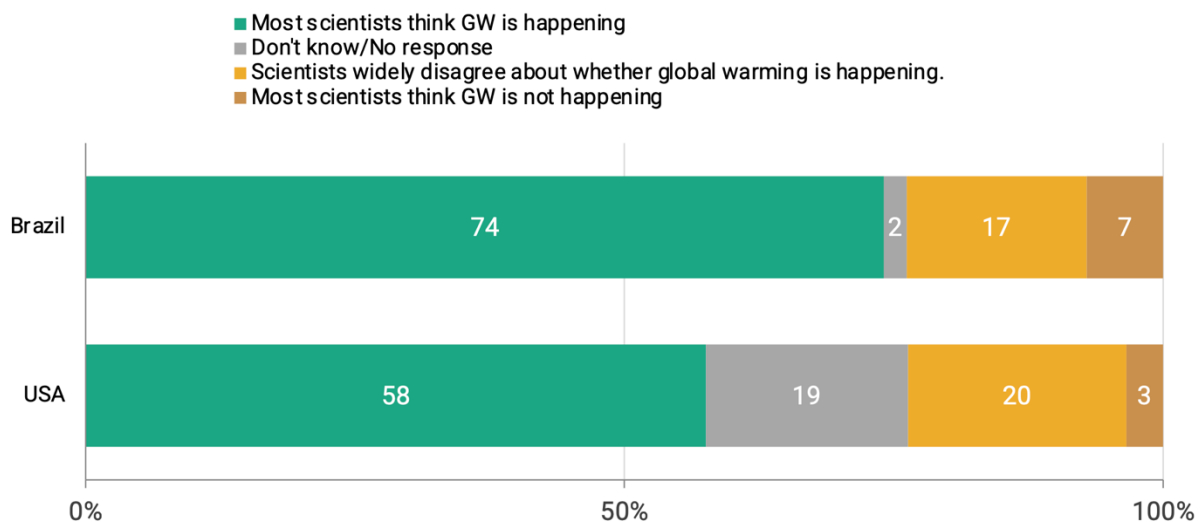
The response options that were presented to respondents varied slightly by country. For instance, in the USA, respondents were provided with “Don’t know” and “Other (Please specify)” as separate response options, but “Don’t know” was only provided to Brazil respondents.

## Perceptions of Scientific Consensus on Global Warming

A 2016 [review](#) by John Cook and colleagues found that six independent, peer-reviewed studies examining the extent of the scientific consensus about global warming have concluded that between 90% and 100% of climate scientists are convinced that human-caused global warming is happening. Two more recent studies ([study 1](#), [study 2](#)) found that more than 99% of climate scientists are convinced that global warming is happening and human-caused.

Larger majorities of people in Brazil (74%) say that most scientists think global warming is happening, while fewer people (58%) in the U.S. say so. Fewer people in both Brazil (17%) and the U.S. (20%) believe scientists widely disagree about whether global warming is happening.

### Perception of scientific consensus on global warming



Which of these three sentences read next is closer to your opinion about what scientists think about global warming?

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USA: December 2022. Base: 1,085 American adults.

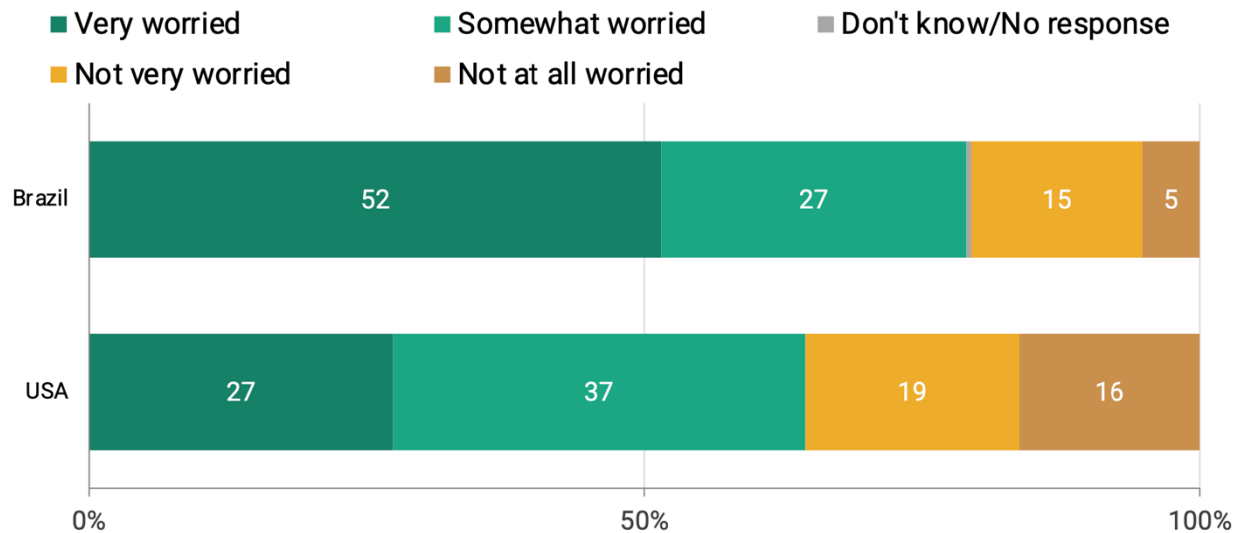


The translation of the response options offered in Brazil slightly differs from the response options offered in the USA.

## Worry About Global Warming

A large majority of people in Brazil (79%) say they are at least “somewhat worried” about global warming, compared to 64% of people in the U.S. Additionally, people in Brazil (52%) are much more likely than people in the U.S. (27%) to say they are “very worried” about global warming.

### Worry about global warming



How worried are you about Global Warming? You are:

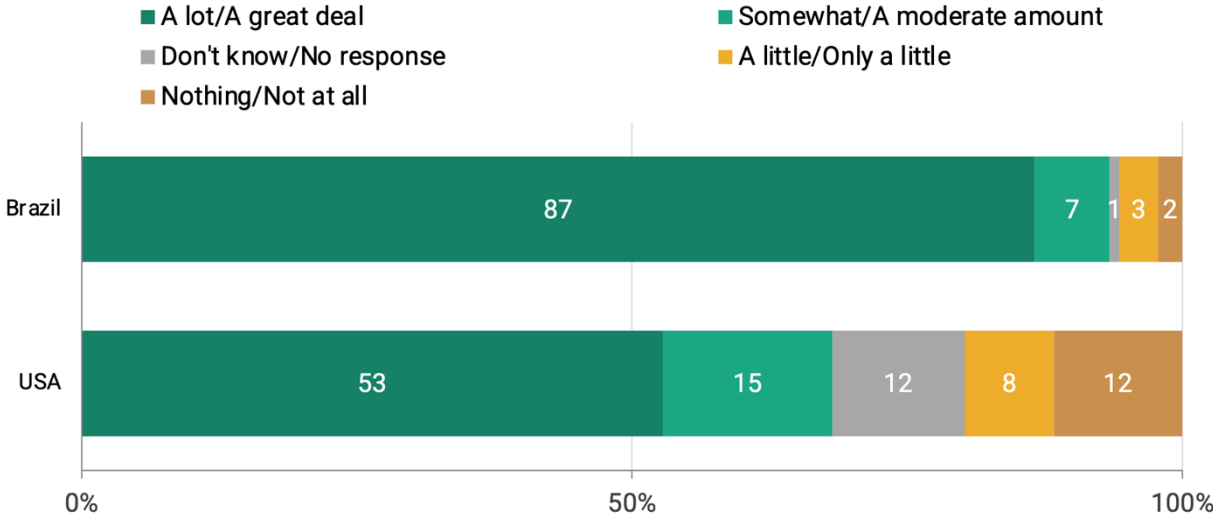
Brazil: November 2022 – January 2023. Base: 2,600 Brazilian adults.  
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### Perception that Global Warming Will Harm Future Generations

A large majority of people in Brazil (87%) say global warming will harm future generations “a lot,” while fewer Americans (53%) say global warming will harm future generations “a great deal.”

### Perception that global warming will harm future generations



How much do you think global warming will harm future generations?

Brazil: November 2022 – January 2023. Base: 2,600 Brazilian adults.  
 USA: December 2022. Base: 1,085 American adults.

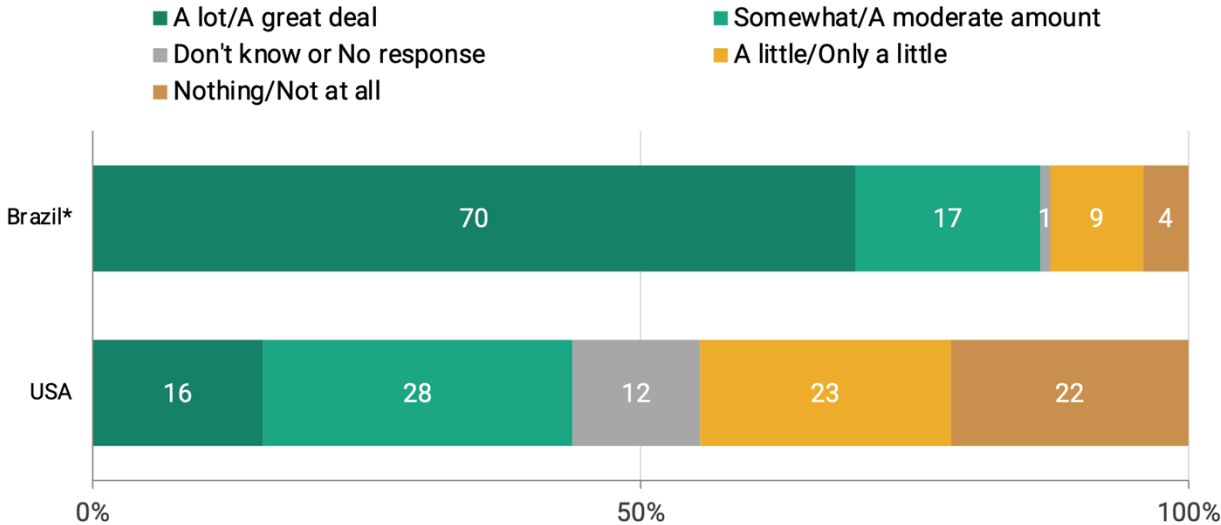


The translation of the response options offered in Brazil slightly differs from the response options offered in the USA. The Brazilian version of each response option is on the left in the legend; the USA version is on the right.

### Perception that Global Warming Will Be Personally Harmful

A large majority of people in Brazil (70%) think that global warming will harm them personally or their family “a lot.” By contrast, fewer Americans (16%) think that global warming will harm them personally “a great deal.” However, this question in the U.S. survey did not include one’s family, which likely affected their responses.

### Perception that global warming will be personally harmful



In your opinion, how much harm do you believe global warming can cause to you and your family?\*



Brazil: November 2022 – January 2023. Base: 2,600 Brazilian adults.  
 USA: December 2022. Base: 1,085 American adults.

The question wording in USA excluded the text “and your family.” The translation of the response options offered in Brazil also slightly differs from the response options offered in the USA. The Brazilian version of each response option is on the left in the legend; the USA version is on the right.

## Methodology Notes

- The Brazil version of survey questions were administered in Portuguese and are translated in English for reporting only. The question and response option text sometimes differed slightly in Brazil compared with the USA due to translations between English and Portuguese. The Brazil version of the question text is presented throughout except where noted.
- The Brazil survey was administered by phone, while the USA survey was administered online.
- For tabulation purposes, percentage points are rounded to the nearest whole number. As a result, percentages in a given chart may total slightly higher or lower than 100%. Summed response categories (e.g., “strongly agree” + “somewhat agree”) are rounded after sums are calculated. For example, in some cases, the sum of 25% + 25% might be reported as 51% (e.g.,  $25.3\% + 25.3\% = 50.6\%$ , which, after rounding, would be reported as  $25\% + 25\% = 51\%$ ).
- More details about the survey methodology used can be found in the [United States](#).