

# CLIMATE ACTION SURVEY 2023

Summary for policy and decision making | **SEPTEMBER  
2024**

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**Make it matter**



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# MOTIVATING CLIMATE ACTION

**The Griffith Climate Action Beacon (CAB)** develops knowledge, leadership, capacity and responses to enable effective and just action throughout society, focusing on interdisciplinary research and cross-sectoral practice collaborations as catalysts for change. CAB's interdisciplinary and partnership approach enables research disciplines and communities of practice to collaboratively define, research, implement, and evaluate solutions for climate action.

The CAB's research focuses on three themes:



## Theme 1

**Motivation for Climate Action**—building the case for and enabling the practice of climate action among individuals and collectively in communities, organisations and government.



## Theme 2

**Future Climate Transitions**—supporting progress towards climate-resilient development and net-zero carbon emissions.



## Theme 3

**Climate Justice**—ensuring that climate actions are fair, equitable, and just, and contributing to broader sustainable development goals.

A range of short- and long-term research projects are supported under each of these themes. The survey described in this report, the National Climate Action Survey, is a core part of the work conducted under Theme 1.

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Many of the ideas for the survey content and methodology, and for this report, came from work completed by Joseph Reser and colleagues in surveys conducted in 2010 and 2011. Their contribution to the current work is substantial and is gratefully acknowledged.

# THANK YOU

## TO THE 4,058 AUSTRALIAN ADULTS

who participated in this survey.





# Introduction

Griffith University's Climate Action Beacon conducted the third of five planned Climate Action Surveys from September to December 2023. The survey discovered what Australians think, feel, and do about climate change and related environmental and climatic events, conditions and issues. This report gives details of the background of the survey, as well as its methods, major findings and potential implications. Comparisons are made with findings from the corresponding 2021 and 2022 surveys.

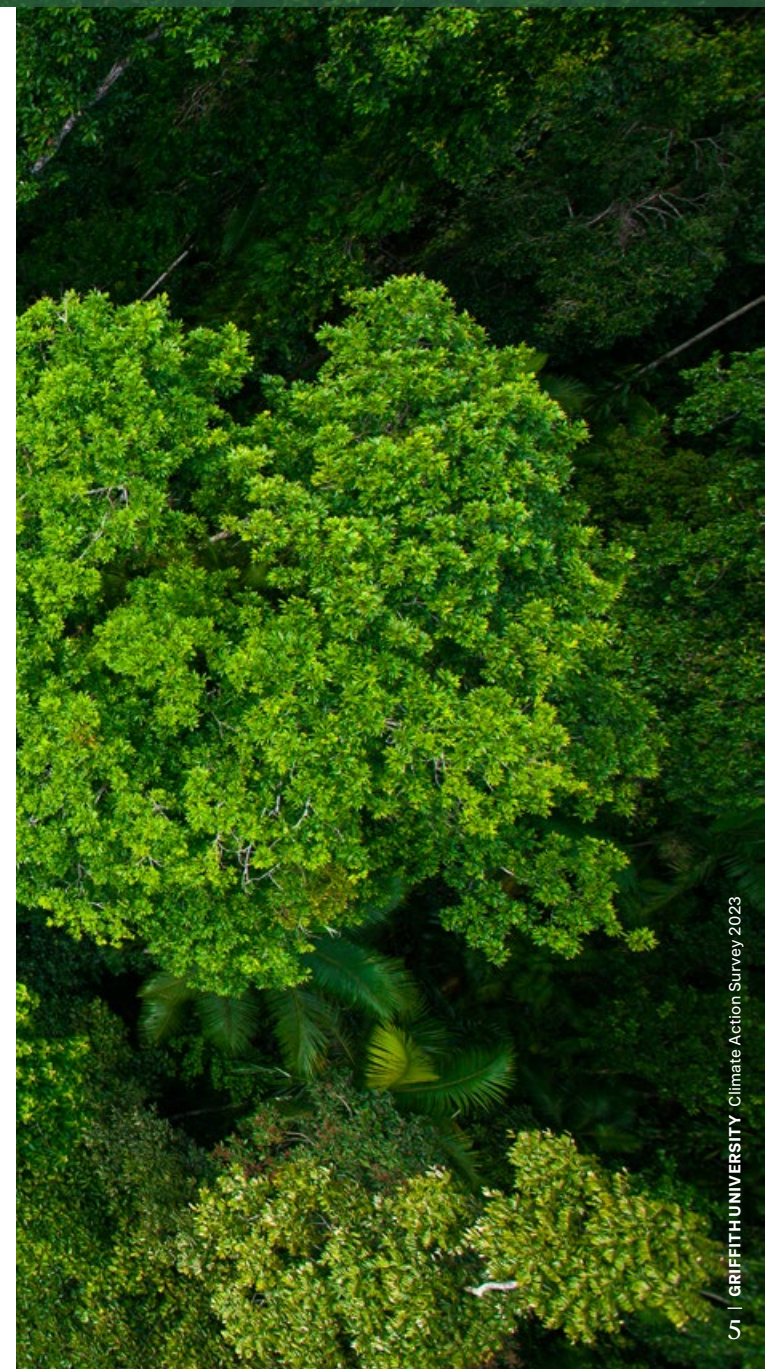
The 2023 Climate Action Survey gathered data from two populations of adult Australians: 1,184 participants in the 2021 and/or 2022 survey (repeat respondents) and 2,874 previously unsurveyed people (new respondents)—the total 2023 sample comprised 4,058 Australian adults. Although the new participants each year represented the national population, those repeat respondents who participated again from previous years were, on average, nine to 10 years older than the national population and the new survey respondents. The sample of new respondents was recruited to ensure it was demographically representative of the Australian population in terms of age, gender and geographic residence. Unless otherwise stated (i.e. identified as repeat respondents), the 2023 results reported here are drawn from the 2,874 new 2023 respondents.

As stated, two versions of the online questionnaire were used in 2023—one for the repeat respondents and one for the new respondents. The latter questionnaire was more similar to the original 2021 survey and the new respondents' survey of 2022.

For the repeat respondents, questions that did not warrant asking a second time in two or three years were replaced by questions exploring new topics, especially related to recycling, extreme weather warnings, and the Great Barrier Reef. Both questionnaires comprised almost 200 single items/questions, approximately 30 multi-item composite scales, and several open-ended questions. Each could be completed in approximately 30 minutes.

This is one of Australia's most ambitious climate change surveys in terms of sample size, methodological rigour, multidisciplinary input, and breadth of coverage.

In addition to the topics investigated for the first time in 2023, the survey explored different views about climate change; feelings/concerns about the threat and reality of climate change; knowledge of climate change and information sources used to obtain this knowledge; experiences of extreme weather events, natural disasters, and climate change impacts; pro-environmental behaviours and lifestyles; barriers to engaging in these behaviours and lifestyles; and self-views, worldviews and socio-political opinions. We also collected demographic data to reveal details about Australians and climate action.



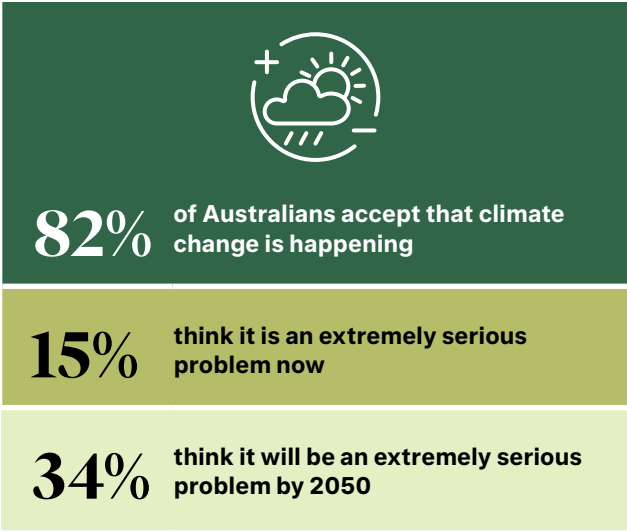
# Key findings

## Do Australians think we have a climate crisis?

Though most Australians accept that climate change is happening (82%), only a minority think it is an extremely serious problem now (15%) or will be in 2050 (34%).

Belief in or acceptance of climate change remained relatively stable across 2021-2023. In 2023, our nationally representative sample revealed that 1% of respondents were climate change deniers, 4% were sceptics, and 19% were unconvinced about climate change. However, 76% of the Australians in 2023 were firm believers in the reality of climate change.

Most Australians reported being fairly (44%) or very (30%) concerned about climate change. The total of these percentages (74%) is similar to the findings of 2021 (72%) and 2022 (71%), but they are over twice as high (35%) as found in a similar survey conducted in 2010/2011.



## Who cares about climate change?

Demographic sub-groups that showed relatively high levels of climate change understanding, concern and action included respondents aged 35 years or under, students, inner urban residents, respondents educated to university level, and those intending to vote for a progressive-leaning political party. (For economy, we refer to members of a plurality of these groups as climate change "progressive" respondents). In contrast, climate change denial, disregard and inaction were more common among the older, religious, less highly educated, and more politically conservative members of the sample. (We refer to these as "conservative" respondents). Women reported stronger beliefs and greater climate change concerns than men. These findings mirrored those obtained in the 2021 and 2022 surveys.

Australians are willing to significantly reduce their energy use (72%), have renewable energy infrastructure such as solar farms in their local area (68%), and change their lifestyle (65%) to reduce climate change.

Most Australians are willing to reduce climate change impacts by recycling (65%), reducing single-use plastic items (52%), reducing food waste (50%), consuming power more efficiently (44%), consuming water more efficiently (41%), and avoiding unnecessary purchases (40%). These top six lifestyle changes are identical to those listed in the preceding years, with similar percentages (maximum 3% difference) across the three years. Only 16% of Australians indicated that they hadn't changed any aspects of their lifestyle over the past year due to concerns about climate change (compared to 19% in 2022 and 18% in 2021).

## How have extreme climatic conditions impacted Australians?

More than one third (38%) of Australians had experienced at least one extreme weather or natural disaster event in the preceding year, and 46% had done so longer than a year ago. Taken together, 60% had experienced such an event at some point in their lives (up from 52% in 2021 and 56% in 2022).

Most Australians (68%) reported that they/their family had been harmed to some extent by climate change related circumstances or events, with only approximately one third (32%) not being impacted at all. This is similar to the findings of the previous two years.

One in five Australians would be not at all willing to move home even if their current residence was deemed uninsurable because of natural disasters, and an additional 20% are only slightly willing to move from an uninsurable home. This means that approximately 40% of the population is willing to live in uninsurable homes at risk from natural disasters.

Australians who had experienced changes, events, or circumstances in the preceding year that they attribute to climate change scored significantly higher on nearly all climate variables than those who did not experience such events.



## How do extreme weather warnings reach Australians?

Approximately half of Australians (57%) have heard or seen an extreme weather warning in the past 12 months. Almost two thirds of the sample experienced a warning about heavy rainfall/thunderstorm/severe storm (65%). Other warnings were about a heatwave (49%), floods (38%), and bushfires (35%), while small groups of people experienced a warning about cyclones (8%) or other events (2%). About 46% of Australians said the most recent warning was about heavy rainfall/thunderstorm/severe storm.

The most cited sources of these extreme weather warnings were TV (42%), radio (29%), and mobile phone app notifications (37%), while the least cited sources for these warnings were newspapers (8%) and email (4%).

## What do Australians think about climate policies?

Support for pro-environmental policies was stronger among progressive rather than conservative Australians. This support was also relatively high among those who were not born in Australia, members of a minority or marginalised group, and those who experienced a natural disaster or climate change event in their lives.

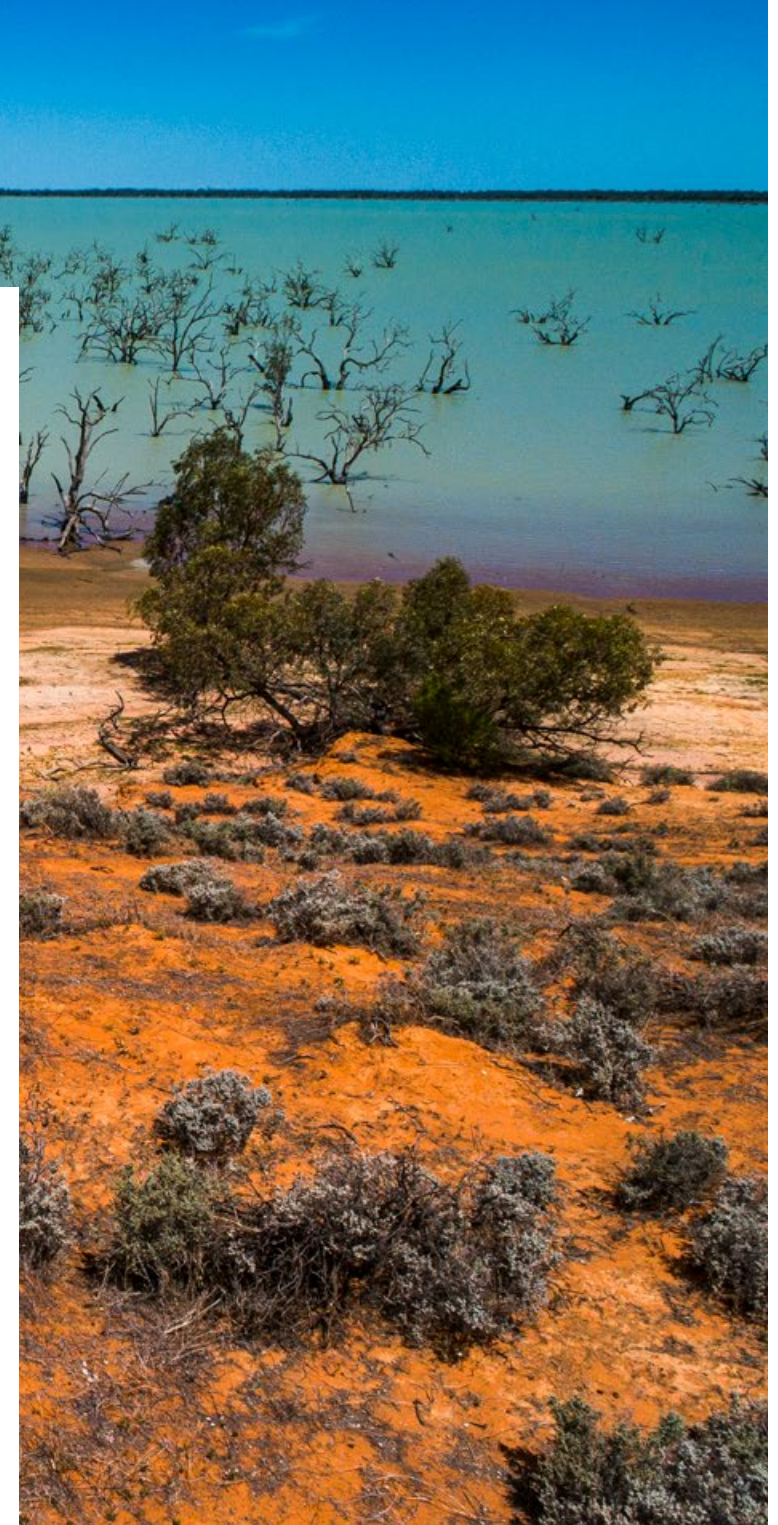
Consistent with their support for climate-friendly policies, these respondents also reported high levels of pro-environmental behaviours.

In general, support for several proposed climate-positive mitigation and adaptation policies is high (above 60% for 6 out of 8 mitigation policies, above 70% for 5 out of 6 adaptation strategies) and low for climate-negative mitigation strategies (36–59%).

When looking at the support of policies by people who intend to vote federally for Labor vs. the Liberal-National Party (LNP), proposed climate-positive mitigation strategies and climate-positive adaptation strategies were supported more strongly by (intended) Labor party voters. In contrast, (intended) LNP voters more strongly supported climate-negative mitigation strategies.

Examples include:

- **Climate Positive Mitigation Policy:** Set a target of national net zero carbon emissions by 2050 at the latest (76% of the full sample were in support, 9% undecided as they did not understand the policy, or were not in favour of/against the policy, and the remaining 15% opposed).
  - LNP (62% support, 8% undecided)
  - LABOR (82% support, 6% undecided)
- **Climate Negative Mitigation Policy:** Minimise Australia's commitments to international climate agreements regarding the reduction of greenhouse gas emissions (41% of the full sample in support, 17% undecided).
  - LNP (57% support, 14% undecided)
  - LABOR (32% support, 14% undecided)
- **Climate Positive Adaptation Policy:** Construct concrete walls to prevent coastal erosion from sea-level rise, even if such walls are costly and detract from beach usage (49% of the full sample in support, 35% undecided)
  - LNP (49% support, 36% undecided)
  - LABOR (53% support, 34% undecided)





A young man and woman are hiking through a lush forest. They are both smiling and looking upwards, admiring the tall trees. The woman is wearing a dark cap and a brown tank top, and the man is wearing a grey t-shirt. Both have backpacks on. The forest is dense with green foliage and large tree trunks.

## Who are the Australians that support climate action?

Community involvement (e.g., being part of a specific group, organisation, or club) is positively associated with pro-environmental behaviours (e.g., displaying actions that are more beneficial or less harmful for the environment), likelihood of climate change activism (e.g., donating money or volunteering time to an organisation working on climate change), and behavioural willingness (e.g., willingness to help reduce climate change by changing lifestyle, paying taxes, etc.).

Community involvement is higher among Australian males, those aged 35 years or under or 36–54, who are religious, university educated, full-time employed, with a moderate to high income, currently studying, from a home where English is not the primary language, in good health, living in an inner-urban area, and who have experienced a natural disaster or other climate-adverse event.

The 2023 respondents' most common reasons for not engaging in pro-environmental behaviours included insufficient time and/or money, entrenched routines/habits, doubts regarding the efficacy of these behaviours, and lack of knowledge of actions to take. Similar barriers to climate action were noted in 2021 and 2022.



## Do Australians recycle?

### Australians were asked about the frequency with which they recycle.

On average, items were recycled "often". Common household waste items such as cardboard, paper, and glass bottles were almost always recycled, whereas other items were reportedly recycled less.

Older Australians, women, parents, those not employed full-time, with lower income, currently studying, predominantly English-speaking, homeowners and vehicle-owners reported higher levels of recycling.

Correlations between recycling and other climate change variables were generally weak. The highest correlations were with positive views towards the Great Barrier Reef and reports of numerous behaviour changes due to climate change.

## What do Australians think about different energy sources?

We sought Australians' opinions on different sources of energy production. Three categories of sources were highlighted: those that entail high emissions of greenhouse gases (e.g., biomass, coal, gas, oil), those that are relatively "clean" (hydroelectric, solar, wind), and nuclear. Australians indicated on a 5-point scale how they felt about each of these energy sources, where 1 is "very unfavourable", 3 "neither favourable / unfavourable", and 5 "very favourable".

**On average, the clean energy sources were the most favoured (mean = 4.18 on the 5-point scale), whereas the nuclear (mean = 2.92/5) and high-emissions sources (mean = 2.80/5) were rated less favourably.**

Progressive respondents reported more favourable attitudes towards clean energy sources than conservative respondents (mean scores of 4.37 vs 4.00, respectively). In contrast, conservative respondents reported more favourable attitudes to high emission and nuclear energy sources than did

progressive respondents (conservative respondents means of 3.25 and 3.54, respectively, vs. progressive respondent means of 2.50 and 2.58).

Respondents who had prior experiences of natural disasters and/or climate change impacts tended to rate clean energy sources quite favourably (means scores of around 4.25) and nuclear and high emission energy sources less unfavourably (scoring on average just below the scale mid-point, approximately 2.7 or 2.6, respectively). Respondents who had not had these experiences rated clean energy sources (approximate mean = 4.1) less favourably than did those who have had these experiences, but they rated this energy source more favourably than either nuclear energy (approximate mean = 3.1) and high emission sources (approximate mean = 3.0). Full details can be found in our Technical Report (Paas et al., 2024).

Women reported less favourable attitudes to nuclear energy than their male counterparts (means of 2.48 vs 3.36, respectively).





## Australians and an Australian icon—the Great Barrier Reef

This year, supported by CSIRO, the survey introduced questions concerning visits to the Great Barrier Reef (GBR), beliefs regarding climate change impacts on the GBR, and sentiments and attitudes towards the Reef and its challenges.

An overwhelming 96% of Australians are familiar with the GBR, with nearly half having visited the Reef. Among those who have visited, the majority (66%) did so within the past decade.

The findings reflect varying degrees of concern regarding perceptions of climate change's impact on the GBR. Most Australians (77%) believe climate change poses a threat to the GBR, with 71% stating it requires immediate action, and the remaining 6% stating it not requiring immediate action, while 13% indicate a need for further evidence to formulate an opinion. The remaining 11% either do not consider climate change a threat to the GBR, do not have a stance, or outright reject the concept of climate change.



**Only 30%**  
of Australians were optimistic  
about the future of the Great  
Barrier Reef

When Australians hear about climate-related damage to the GBR, a large majority indicate it makes them feel at least a little bit sad (92%), disappointed (88%), helpless (80%), angry (79%), and afraid (70%).

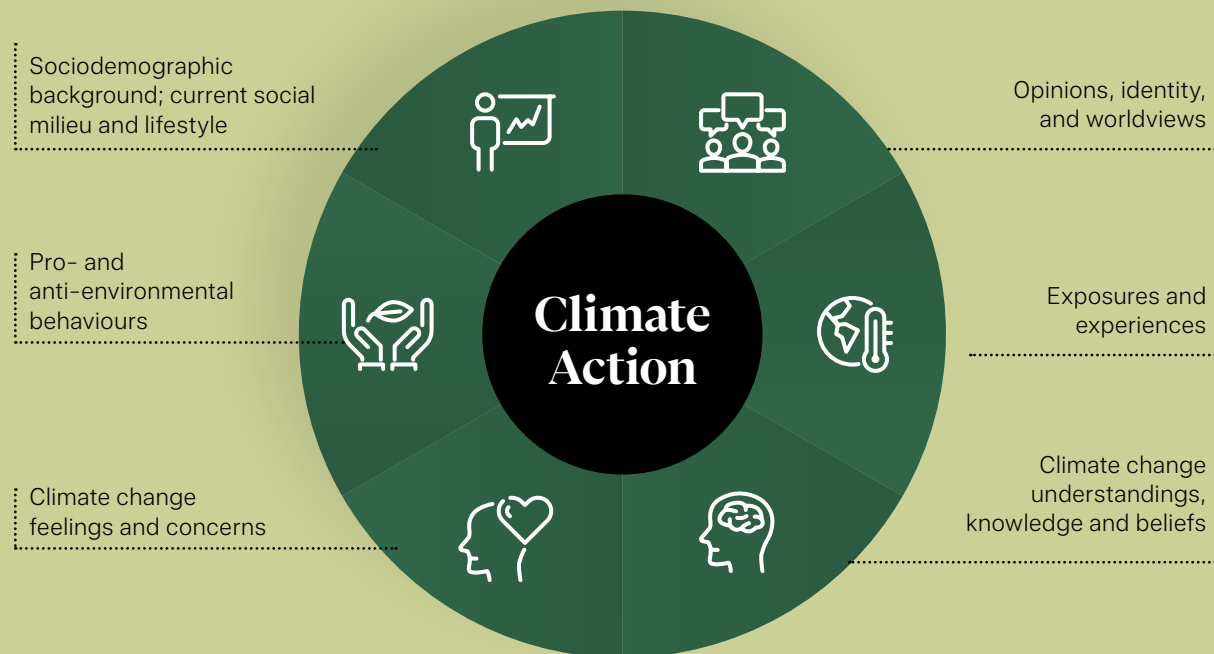
Half of Australians strongly agree that the GBR is part of their Australian identity. A large majority—almost 8 out of 10—express a strong sense of pride in the GBR being a World Heritage area, with 6 out of 10 believing that the GBR should be on the World Heritage in Danger list. Seven out of 10 Australians see protecting the GBR as a responsibility that all Australians share, fostering a sense of collective duty and unity. However, 14% state that it is not their responsibility to protect it.

When provided with a list of 19 possible threats to the GBR, Australians rated their top 3 of serious / extreme threats to the GBR as climate change (70%), land-based runoff (67%) and deep sea mining, and marine debris/beach littering (both 63%).



# Survey background and overview

## The conceptual model underlying the climate action survey



The Climate Action Survey provides detailed information regarding what adult Australians think, feel and do in response to climate change and related environmental and climatic events and conditions. The survey aims to document Australians' knowledge, beliefs, attitudes and actions in late 2023 and compare them with those reported in 2021 and 2022.

### More specifically, the survey:

- builds and tests theory, enhancing theoretical understandings of climate change-related phenomena
- contributes to knowledge derived from research; fills gaps in this research and resolves inconsistencies/controversies raised by research; and provides a basis for comparison with findings from past studies and a baseline of evidence for use in monitoring changes over time in climate change-related variables
- informs the design of interdisciplinary interventions and the formulation of policy about climate change issues, and thereby meets relevant government and industry needs for up-to-date and authoritative information
- informs individuals and communities and stimulates public debate about climate change-related matters
- meets the Climate Action Beacon's various objectives, informs and complements other Beacon projects, satisfies diverse Beacon member interests, and further establishes the Beacon as a national and international leader in climate change research, policy and practice.

This means, the current surveys are distinctive in several ways compared to most previous climate change and similar surveys. For example, they:

- assess many constructs that hold theoretical significance
- use validated (multi-item) scales to measure complex and multi-faceted variables
- examine various types of climate actions and behaviours
- investigate sources of information about climate change
- emphasise possible barriers to and drivers of climate action, including objective knowledge, normative beliefs, different types of (in)efficacy, (dis)trust in information sources, and psychological adaptation
- gather data relevant to climate justice for marginalized groups
- examine how contextual factors, such as COVID-19 in 2021 and the widespread flooding in eastern Australia in 2022, affect climate action
- collect longitudinal data.

The 2023 survey gathered data from two overlapping populations of adult Australians: 1,184 people who had participated in one of our surveys before (i.e., the 2021 and/or 2022 survey), the so-called repeat respondents, and 2,874 previously unsurveyed people, the so-called new respondents. This summary report mostly highlights the findings from the new respondent sample, as this sample was recruited in a manner that ensured it was demographically representative of the Australian population based on age, gender and state. For this reason, the findings obtained in this sample regarding gender, age and Australian state/territory can be generalised to the wider Australian population.

Both surveys required participants to complete an online questionnaire. The questionnaires were similar but not identical. Both were designed to meet the aims specified earlier.

Input was sought and obtained from academics of various disciplinary backgrounds. In this way, a broad range of interests and agendas was represented.

Survey questions were selected based on their theoretical importance, practical implications, continuity with the past and desire to break new ground.

To enable a fair comparison between responses obtained in the 2021, 2022 and 2023 Climate Action Surveys, the majority of the content of the 2021 survey—including its closed and open-ended questions and multi-item scales—was retained in 2022 and 2023.

Some 2021/2022 questionnaire items were not included in 2023 because they had not generated significant interest from CAB members or external stakeholders, and had not led to substantial or surprising findings in 2021. Although these items have some value, they were deemed less valuable than others, given the competition for space in the 2023 questionnaires. Prime examples are the scale assessing place attachment (2021), functional impairment due to climate change, and heat-related issues (2022).

Similarly, content was added to one or both of the 2023 questionnaires for three main reasons: it addressed topics of importance in current times (e.g., questions on extreme weather warnings), it had become more salient in 2023 (e.g., questions on recycling) and/or it related to the content that was receiving increased attention in recently published research.

## Progressive vs conservative respondents

Throughout this report, we distinguish between progressive and conservative respondents based on their attitudes and behaviours regarding climate change.

Progressive respondents—those who are the most concerned and active regarding climate change—typically exhibit various characteristics. They are often aged 35 years or under, university-educated, currently studying, and/or reside in inner urban areas. They support progressive political parties such as the Australian Greens or the Australian Labor Party. Additionally, they frequently report direct experiences with extreme weather, natural disasters, or perceived manifestations of climate change. These respondents also tend to be women, employed full-time, higher income earners, without children, and residing in households where English is not the primary language spoken.

In contrast, conservative respondents tend to be more sceptical, less concerned, and less active regarding climate change. They are typically older, more likely to be male, reside in rural regions, have a religious affiliation and have received only a school-level education. These respondents are less likely to report direct experiences with natural disasters or extreme weather events.



# Survey procedures and sample

In the first phase, we targeted all 6,350 unique participants from 2021 and 2022 to maximise the size of the ongoing longitudinal sample. The survey firm Dynata provided an additional financial incentive to encourage these respondents to participate again in 2023, attracting 1,184 repeat respondents (18.6%). This sample was supplemented with 2,874 new respondents who had not participated in previous years.

The new sample was stratified by gender (at least 48% females and at least 48% males), age (approximately 50% below 40 years of age and approximately 50% aged 40 years and above), and state/territory of Australia (with sample proportions roughly equal to those in the national population). These three stratification variables were required to be interlocked, ensuring nationally representative numbers of each gender, age group and state.

## Details of the questionnaire

The repeat respondent questionnaire comprised three open-ended items/questions, 203 items that formed a part of a multi-item scale, and 86 other closed-ended questions.

The new respondent questionnaire comprised four open-ended items/questions, 232 items that formed a part of a multi-item scale, and 81 other closed-ended questions.

## Survey context

Responses to all surveys may be affected by various social, political, economic, and environmental factors during data collection. Events and circumstances that might have influenced the 2023 period of data collection include:

- **Rising costs of living:** Concerns about increasing expenses for essentials such as housing, utilities, and groceries could influence respondents' priorities and attitudes.
- **Domestic economic situation:** Economic conditions, including factors like employment rates, inflation, and GDP growth, may shape perceptions of personal financial stability and overall economic outlook.
- **Extreme weather events and natural disasters:** Incidents such as tropical cyclones and other severe weather events can have immediate and lasting effects on communities, potentially influencing respondents' views on climate change and disaster preparedness.
- **State election in NSW:** Political events, such as elections, can stimulate public discourse and influence attitudes towards governance, policy priorities, and political leaders.
- **Wars:** Ongoing conflicts, such as the Ukraine war and the Gaza war, can impact public sentiment, international relations, and discussions around security and humanitarian issues.
- **UN Climate Change conferences (COP28):** Global events focused on climate change, like the UN Climate Change conferences, can raise awareness, shape public discourse, and influence attitudes towards environmental policies and actions.

These events and circumstances may have contributed to fluctuations in respondents' responses and perceptions during the 2023 data collection period, reflecting the dynamic interplay between external factors and individual attitudes and behaviours.



## Characteristics of the participants of the Climate Action Survey

**Table 1**—Comparison of the demographic composition of the 2021, 2022 and 2023 samples

Variable	2021 Survey		2022 Survey			2023 Survey	
	TOTAL SAMPLE	REPEAT RESPONDENTS (RESPONDED IN 2021)	NEW RESPONDENTS	TOTAL SAMPLE	REPEAT RESPONDENTS (RESPONDED IN 2021 AND/OR 2022)	NEW RESPONDENTS	TOTAL SAMPLE
Sample size	3,915	1,263	2,435	3,698	1,184	2,874	4,058
Male	48.6%	48.0%	49.6%	49.1%	48.2%	49.7%	49.3%
Female	51.1%	51.9%	50.0%	50.6%	51.6%	49.8%	50.3%
Age (years)	Mean = 46.56 (sd = 17.41)	Mean = 54.20 (sd = 16.95)	Mean = 46.05 (sd = 19.46)	Mean = 48.83 (sd = 19.03)	Mean = 56.03 (sd = 17.42)	Mean = 46.43 (sd = 18.56)	Mean = 49.23 (sd = 18.75)
Born in Australia?	76.7%	76.1%	78.4%	77.6%	77.4%	74.9%	75.6%
Language spoken at home is English	93.8%	95.2%	94.3%	94.6%	95.4%	93.6%	94.1%
Religious	40.5%	41.2%	38.0%	39.1%	40.5%	35.4%	36.9%
University-educated	40.5%	39.0%	38.4%	38.6%	39.6%	45.1%	43.5%
Left-leaning voter	41.7%	45.8%	50.2%	48.7%	51.8%	58.0%	56.2%
Is a parent	56.3%	63.7%	57.7%	59.7%	66.6%	60.0%	61.9%
Employed full-time	36.9%	31.7%	37.9%	35.7%	28.7%	41.4%	37.7%
Income > \$100k p.a.	32.2%	30.0%	32.8%	31.9%	31.4%	41.0%	38.2%
Currently a student	12.8%	5.9%	11.7%	9.7%	5.4%	11.7%	9.9%
Homeowner	56.3%	64.0%	54.8%	58.0%	67.1%	59.2%	61.5%
Member of a minority or marginalised group	29.9%	28.5%	27.6%	27.9%	28.0%	27.9%	27.9%
Resides in a rural/remote area	20.3%	21.1%	22.3%	21.9%	23.5%	23.0%	23.1%
Directly experienced ND	52.4%	73.2%^	56.1%		76.9%^	60.3%	
Directly experienced CC	35.5%	32.6%^	45.1%		32.7%^	46.1%	
In poor or just OK health	55.6%	48.1%	48.5%	48.4%	45.2%	47.4%	46.8%
Petrol/diesel vehicle owner	82.9%	85.0%	84.6%	84.8%	85.8%	84.9%	85.2%
<b>Australian state of residence</b>							
Australian Capital Territory	2.5%	2.1%	1.7%	1.8%	2.1%	1.8%	1.9%
New South Wales	30.9%	28.7%	33.1%	30.4%	29.4%	31.2%	30.7%
Northern Territory	1.0%	0.8%	1.0%	0.9%	0.9%	1.0%	1.0%
Queensland	19.2%	21.3%	20.8%	21.0%	21.3%	20.4%	20.6%
South Australia	7.5%	8.7%	7.6%	8.0%	8.9%	7.3%	7.8%
Tasmania	2.9%	2.3%	2.0%	2.1%	2.1%	2.3%	2.2%
Victoria	25.4%	25.3%	25.3%	25.3%	25.4%	25.3%	25.4%
Western Australia	10.8%	10.8%	10.3%	10.5%	9.9%	10.6%	10.4%

Note. sd = standard deviation. ND = natural disaster. CC = climate change. ^The survey questions used to derive this percentage differed from those used in the other questionnaires. Hence, direct comparisons involving this percentage are not recommended, and reporting a weighted average of the repeat respondent and new respondent percentages would be misleading.



# Do Australians think we have a climate crisis?

A key question addressed in the Climate Action Surveys relates to the meaning people attach to climate change. Australians were asked: "Which of the following definitions best captures your understanding of the meaning of the term climate change?"

The five options and the percentage of Australians who endorsed each option in the 2021, 2022, and 2023 samples are as follows:

Survey question:	2021 Survey		2022 Survey			2023 Survey	
	TOTAL SAMPLE	REPEAT RESPONDENTS	NEW RESPONDENTS	TOTAL SAMPLE	REPEAT RESPONDENTS	NEW RESPONDENTS	TOTAL SAMPLE
Which of the following definitions best captures your understanding of the meaning of the term climate change?							
all changes in the world’s climate, regardless of the cause	33%	38%	33%	34%	39%	34%	36%
all changes in the world’s climate that are due to human activity	29%	25%	29%	28%	26%	29%	28%
increases in the world’s temperature (i.e., global warming)	26%	22%	23%	23%	19%	24%	22%
all changes in the world’s climate that occur naturally	10%	11%	12%	12%	12%	10%	10%
something that does not really exist	3%	4%	4%	4%	4%	3%	3%
Sample size (N)	3,915	1,263	2,435	3,698	1,184	2,874	4,058

These findings underscore the intricate nature of climate change communication and highlight some confusion surrounding the term. It's evident that there is no universal consensus and a large portion of the population still has misconceptions about the human role in climate change. This serves as a cautionary note for governments, policymakers, scientists, scientific organisations, journalists, news media and advocates for action on climate change. It suggests that their audiences may interpret the term climate change differently.

Clarifying the meaning of climate change in each context may enhance communication effectiveness. Providing clear definitions and explanations can help bridge the gap in understanding and facilitate more informed discussions and decision-making. By addressing misunderstandings and promoting a shared understanding of climate change, stakeholders can better engage with diverse audiences and foster collective action towards mitigating its impacts.

Most (59%) believe Australia has already started to feel the effects of climate change, 17% believe the effects will be felt within the next 25 years, and 5% feel within 50 years. Together, these findings show that many Australians' views reflect a temporal distancing of the climate crisis.

Though most Australians accept that climate change is happening (82%), this survey shows that only 15% of Australians believe climate change is an extremely serious problem right now (compared to 22% in 2021 and 15% in 2022), whereas 34% believe it will be so in 2050 (compared to 45% in 2021 and 31% in 2022). Consistent with this, 68% believe it is at least a moderately severe problem now, and 80% believe it will be severe in 2050.

Climate change risk perceptions were generally high, especially among progressive members of the samples.

**Most Australians (77%) agreed that climate change at least moderately influences the frequency and intensity of extreme weather events such as heatwaves, cyclones and droughts, and disasters such as bushfires and floods.**

In line with these findings, few Australians (5%) believed Australia would never feel the effects of climate change.

Approximately one in five Australians agreed at least slightly that climate change mainly affects regions far from their home, despite scientific evidence to the contrary. Thus, these Australians' views reflect some spatial distancing of the climate crisis. This chasm between public understanding and scientists calls for immediate action. These results on spatial distancing also speak to the tyranny of distance in the Australian context and the challenges of climate change communication over such a vast and diverse continent.

## Belief in or acceptance of climate change

A second key question in all waves of the Climate Action Survey is: **Do Australian adults believe in the existence of climate change?** To address this question, respondents answered five items located in different sections of the survey. Participants were grouped into four categories based on their responses to these items:



### Deniers

(i.e., those who answered all five questions in a manner reflecting disbelief in climate change)



### Sceptics

(i.e., those who answered either three or four of these items in a manner reflecting disbelief in, or doubts about, the existence of climate change)



### Unconvinced

(i.e., those who answered either one or two of the items in a manner reflecting disbelief in, or doubts about, climate change)



### True believers

(i.e., those who responded to all five questions asked of them in a manner that demonstrated acceptance of the reality of climate change)



Findings are presented in the table below to compare across the three years of this survey.

	2021 Survey		2022 Survey		2023 Survey		
	TOTAL SAMPLE	REPEAT RESPONDENTS	NEW RESPONDENTS	TOTAL SAMPLE	REPEAT RESPONDENTS	NEW RESPONDENTS	TOTAL SAMPLE
Deniers	1.1%	1.7%	1.6%	1.6%	1.6%	0.9%	1.1%
Sceptics	4.3%	5.8%	4.9%	5.2%	5.2%	4.2%	4.5%
Unconvinced	17.2%	17.8%	19.1%	18.7%	18.1%	18.8%	18.6%
Believers	77.3%	74.7%	74.4%	74.5%	75.1%	76.1%	75.8%
Sample size (N)	3,915	1,263	2,435	3,698	1,184	2,874	4,058



The major findings of our survey reveal that approximately three-quarters of the members of all samples were categorised as believers, and fewer than 2% were classed as deniers. These trends are consistent across years. This suggests that work remains to be done to firmly convince about one-quarter of the Australian population that climate change is real—and, more specifically—that there is an urgent need for climate action. Deniers and sceptics are the hardest to convince; therefore, the almost 19% of unconvinced Australians are best positioned for change.

Compared to the convinced and unconvinced, the Australians who are in denial of or sceptical towards climate change tended to be the more conservative respondents: male, older, likely to support right-leaning political parties, less educated and more likely religious or identifying with a particular faith, residing in rural areas, and less likely to report personal experience with natural disasters or extreme weather events. Meanwhile, the convinced tended to be the more progressive Australians. Not surprisingly, the prevalence of strong climate change beliefs was most pronounced by those who have experienced an event or condition they attributed to climate change.

# Who cares about climate change?

Approximately half of Australians (52%) rated climate change as an important, very important, or extremely important issue for them. These percentages are similar to 2022 (53%) but lower than 2021 (60%). Furthermore, most Australians (62%) believed that climate change should at least be a high priority for the Australian Government. Again, these percentages are similar to 2022 (61%) but lower than 2021 (67%). These findings demonstrate there is a dissonance between reported importance for themselves versus the importance of government action.

## Knowledge

Respondents completed a 13-item objectively scored test of their knowledge of the causes, impacts and effective responses to climate change. After granting a point for correct answers and subtracting a point for incorrect ones, the average test score out of 13 was 5.8, shy of 50%. This score is slightly higher than in 2021 (5.6/13) and 2022 (5.3/13). As was the case in 2021 and 2022, the score was the highest among those who indicated they experienced a change, circumstance or event that they attributed to climate change, with an average score of 7.5 out of 13.

When asked to rate their knowledge of climate change, most respondents indicated they only knew a little (52%, scored as 3), and the mean score on a six-point scale was 3.4.

**Groups of Australians who tended to rate their knowledge as high included those whose primary language spoken at home was not English, those who were university-educated, those intending to vote for the Greens or Labor, inner-urban residents, students, those born overseas, and those who claimed to have directly experienced a climate change event or condition. Men rated their knowledge higher than women, but women scored higher on the objectively scored test.**

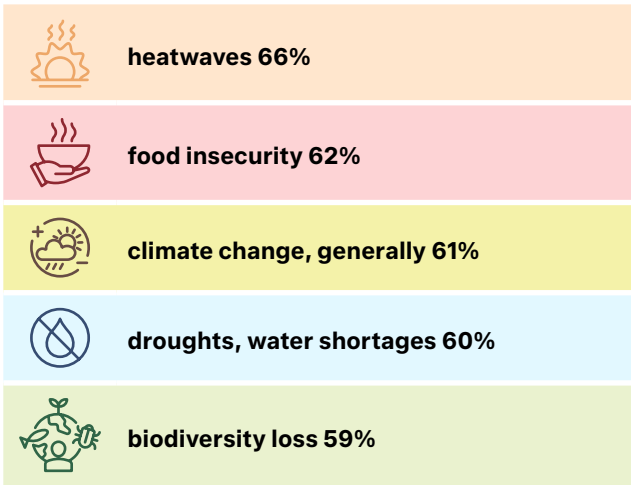
## Concern

Most Australians reported being fairly (44%) or very (30%) concerned about climate change. The total percentage concerned (74%) is similar to the findings of 2021 (72%) and 2022 (71%), but they are over twice as high (35%) compared to findings from a similar survey conducted in 2010/2011.

**Climate change concern** was higher among progressive respondents than conservative respondents, although there were some exceptions. Most notably, concern was higher among higher income earners (those with an income of 100K+), non-parents, the full-time employed, respondents who resided in a home in which English was not the primary language spoken, and those who self-identified as belonging to one or more of five minority/marginalised groups (e.g., identified as culturally and language diverse [CALD], Aboriginal and/or Torres Strait Islander [ATSI], living with a disability, LGBTQIA+, or homeless people). Concern was also higher among those who reported having experienced one or more natural disasters/extreme weather/climate change-impact experiences.

Respondents were presented with a list of threats that could directly affect them, their family, or their local environment in the near future. The issue that was most concerning was the cost of living, with 84% of respondents being concerned, greatly concerned, or extremely concerned about this. Only 1% were not concerned at all.

Other issues that concerned, greatly concerned, and extremely concerned large proportions of Australians were:



The cost of living affects almost everyone. However, this was the first time we included the cost of living in the questionnaire, so we cannot compare these findings to those of previous years. Looking at the other concerns, levels are slightly down for all concerns compared to 2021 levels. However, they are higher than 2022.

Across all Australians, the concern for the cost of living is relatively highly associated with the concern for climate change in general and other concerns.



### The climate change distress scale

From 2021 to 2022, increased proportions of people reported being distressed by climate change although these proportions were generally quite stable from 2022 to 2023. This is illustrated in the following table, which shows the percentages of people who either slightly agree, agree, or strongly agree with experiencing each of six negative emotions in response to climate change.

Item	2021	2022	2023
Worried	59%	67%	67%
Distressed	45%	52%	51%
Upset	41%	46%	48%
Overwhelmed	43%	47%	47%
Anxious	42%	46%	46%
Guilty	35%	39%	40%



ABOUT

1/4

of Australians are willing to pay significantly more for energy-efficient products

### Have Australians' behaviours and lifestyles been affected by their understanding and experiences of climate change?

The most frequently endorsed lifestyle changes reported by Australians to reduce the impact of climate change (of those listed) were: recycled more often (65%), reduced use of plastic items (52%), reduced food waste (50%), consumed power off the grid more efficiently (44%), consumed water more efficiently (41%), and avoided making unnecessary purchases (40%).

These top six lifestyle changes, are identical to those listed in the preceding years, with similar percentages (maximum 3% difference). Only 16% of Australians indicated that they hadn't changed any aspects of their lifestyle over the past year due to concerns about climate change (compared to 19% in 2022 and 18% in 2021). Each of these individual actions, when combined, can make a substantial difference in the fight against climate change.

On average, Australians expressed low-moderate levels of pro-environmental personal norms (i.e., their felt moral obligation to combat climate change), with scores similar to 2022 and slightly higher than in 2021. Progressive respondents reported stronger pro-environmental personal norms than conservative respondents.


Australians were asked about the likelihood of engaging in six types of climate change activism if a liked and respected friend asked them. These types of activism included donating money to an organisation working on climate change, volunteering time to an organisation working on climate change, or personally engaging in

non-violent civil disobedience against corporate or government activities that worsen climate change. Between 21% and 42% of Australians indicated they would engage in these actions. Again, it was the progressive rather than the conservative Australians who most often reported that they would engage in these activities, as did several other groups: those employed full-time, those whose household income exceeded \$100,000 per annum, those who do not own their own home, those who had prior direct experiences of one or more natural disaster, extreme weather, and/or climate change impact event/s, non-parents, non-homeowners, those who self-identified with a minority/marginalised group, and those not born in Australia and who mainly spoke a language at home that was not English.

The study revealed a surprising level of readiness among Australians to make lifestyle changes and financial commitments to support climate action. Most people expressed a willingness to reduce their energy use (72%), support renewable energy infrastructure such as solar farms in their local area (68%), and change their lifestyle (65%) to combat climate change. **Even more surprising, about one-quarter of Australians are willing to pay significantly more for energy-efficient products and/or accept cuts in their living standards. Approximately one in five Australians are willing to pay higher personal taxes or more for electricity and/or fuel to reduce climate change. This proactive stance towards climate action is particularly noteworthy given the reported cost-of-living crisis.**

Progressive Australians were generally more willing to take these actions than conservative Australians. Also more willing to take action were those respondents who were full-time employed, those who mainly spoke a language other than English at home, non-parents, non-vehicle owners, those who reported being in relatively good health, and those who have experienced a natural disaster or extreme weather event.



A woman with dark hair tied in a bun, wearing a light blue jacket, yellow shorts, and a backpack, stands on a forest path looking up at the trees. The forest is lush with green moss on the trees and ground.

Climate change beliefs and concerns are stronger among progressive Australians (younger, better-educated) than conservative Australians. However, willingness to participate in pro-environmental behaviours and other climate actions cuts across the entire sample.

Findings suggest the possibility of segmenting the Australian population based on their cost-of-living concerns and their ability to make financial contributions to environmental sustainability. For example, those with higher concerns about the cost of living are less willing to pay higher personal taxes and more for electricity, fuel, or energy-efficient products. It is unknown which causes which, but we can conclude that they are associated.

When confronted with climate change threats, it becomes imperative for people to adapt psychologically by making cognitive, emotional, and behavioural adjustments. The study's findings highlight that progressive Australians are more inclined to say they are dealing with these threats more adaptively than conservative Australians. This underscores the urgent need for adaptive responses to climate change, and the challenges involved in encouraging such adaptation among the more recalcitrant members of the community.



# What do Australians think about climate policies?

Support for pro-environmental policies was stronger among progressive rather than conservative Australians. This support was also relatively high among those who were born outside of Australia, members of a minority or marginalised group, and those who experienced a natural disaster or climate change event in their lives.

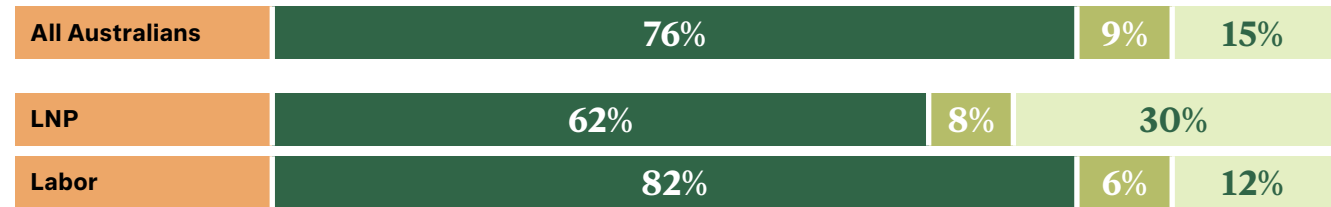
Consistent with their support for climate-friendly policies, these respondents also reported high pro-environmental behaviours.

Thirty-six per cent of Australians support the 2022 legislation to reduce Australia's greenhouse gas emissions by 43% by 2030, claiming it is "about right". A further 25% think it is too low, whereas 14% think it is too high. Twelve per cent don't think we should have a target at all, and 14% don't have an opinion on the matter. In conclusion, most Australians (61%) support this policy initiative.

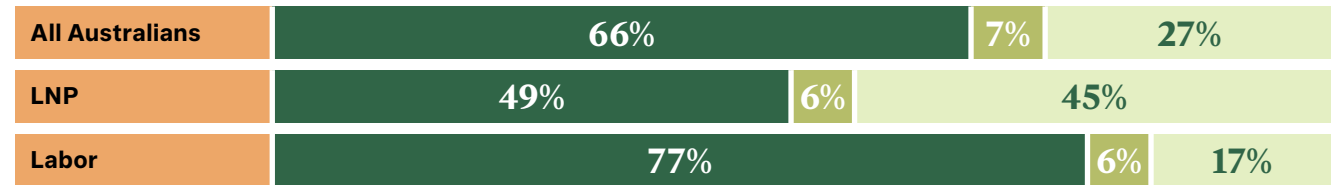
Australians were asked to what extent they would support other initiatives if the government proposed them as policies. Views about these policies differed between respondents intending to vote federally for the Liberal National Party and the Labor Party<sup>1</sup>.

## Climate-positive mitigation strategies

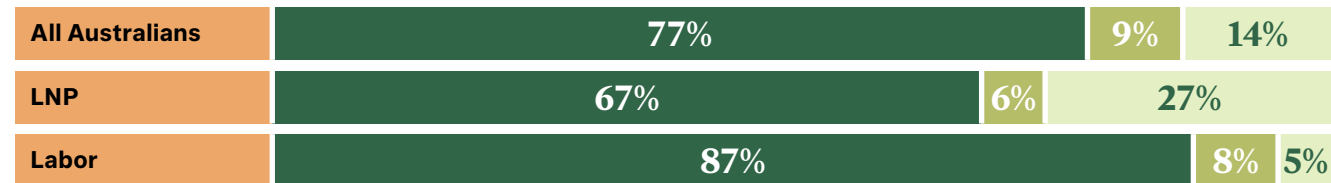
### Set a target of national net zero carbon emissions by 2050 at the latest



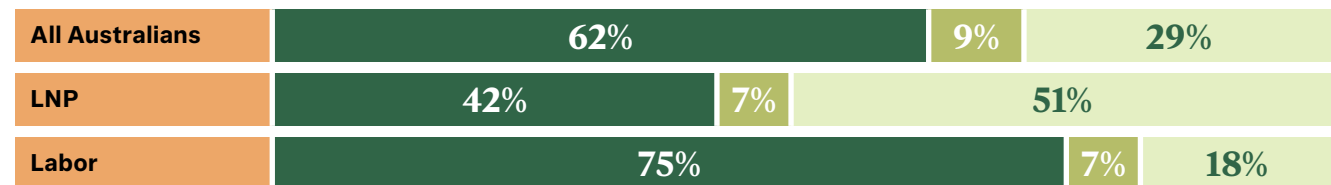
### Put a tax on carbon emissions, with the money raised being invested in clean, renewable energy



### Stimulate public/private investment in a national clean energy power system to replace all coal power



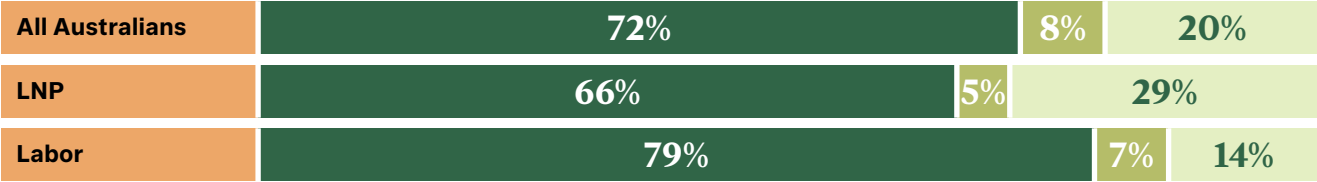
### Phase out the mining of fossil fuels (coal, oil, and gas) over 10 years



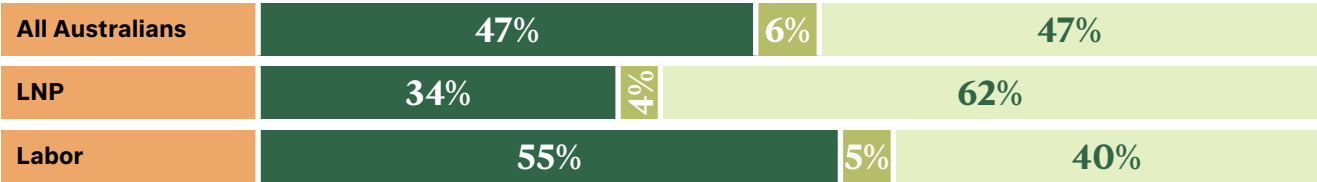
Support Undecided (They did not understand the policy or were not in favour of/against the policy) Oppose

1. Although we could display percentages for intended voters for all political parties that would support each of the listed policies, for ease of comparison, we have chosen to only display levels of support of respondents intending to vote federally for the Liberal National Party and the Labor Party

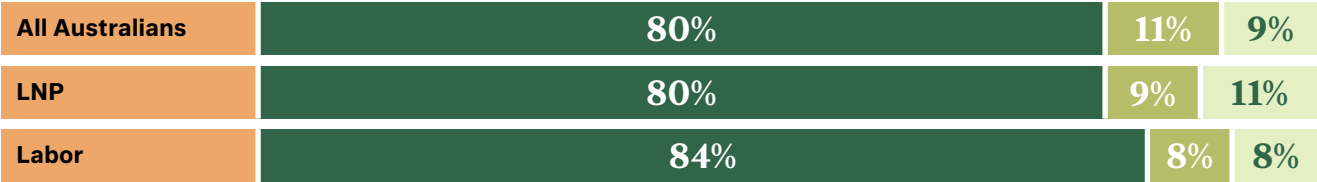
Increase taxpayer-funded financial grants/subsidies for private solar panels and batteries



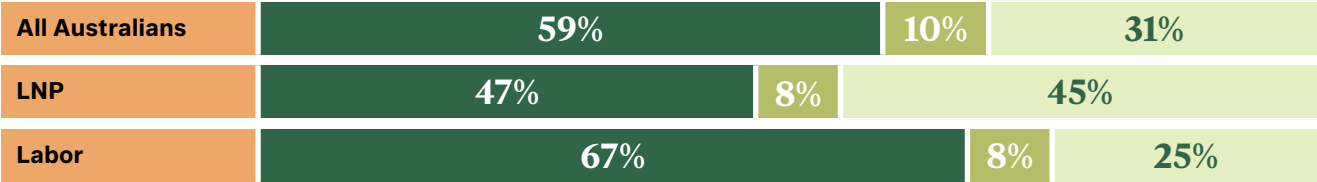
Require all new vehicles to be electric by 2040



Assist communities that are currently reliant on coal mining for their livelihood



From 2024, require all new homes, residential divisions and public buildings to be powered by electricity, thereby phasing out gas appliances and heating



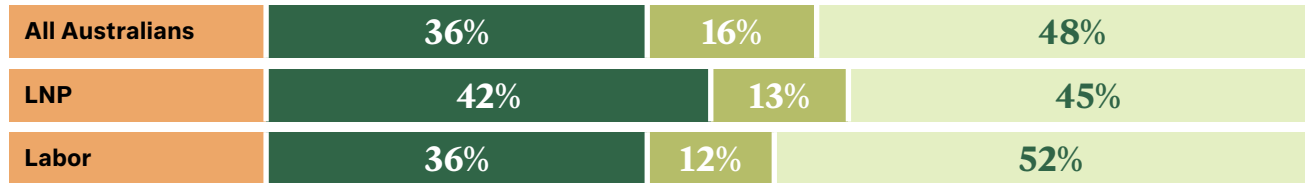
Support Undecided (They did not understand the policy or were not in favour of/against the policy) Oppose



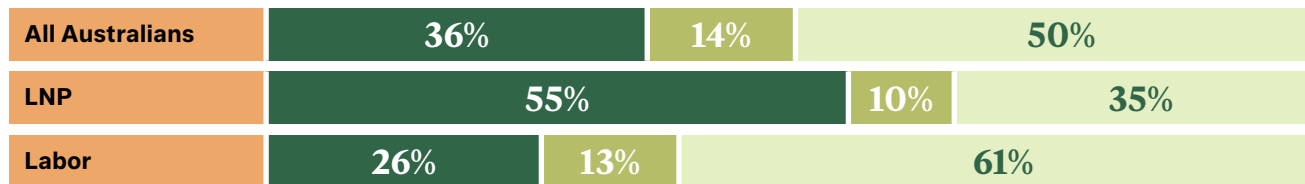


## Climate negative mitigation strategies

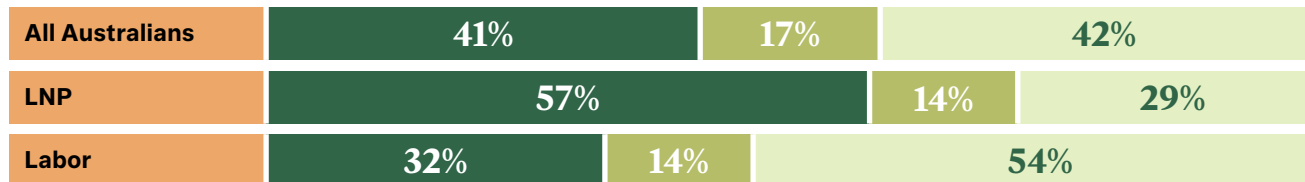
### Provide taxpayer-funded financial grants/subsidies to the fossil fuel industry



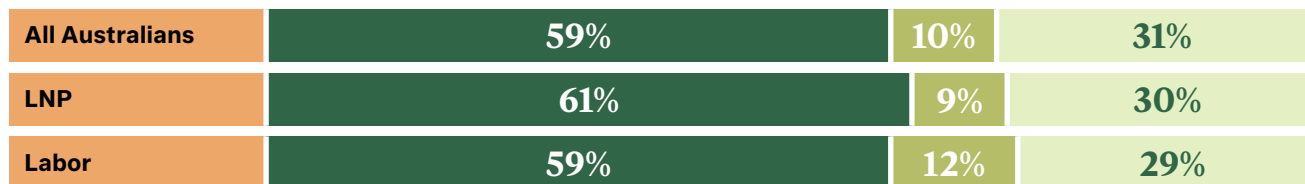
### Build new coal-fired power stations as old ones are retired



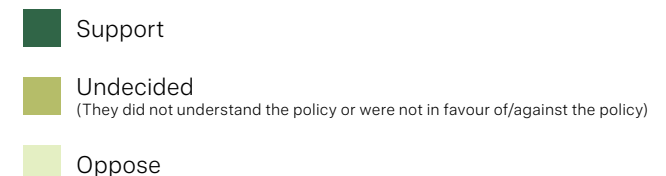
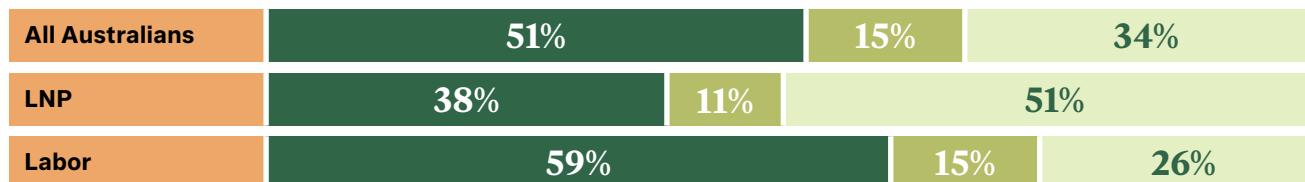
### Minimise Australia's commitments to international climate agreements regarding the reduction of greenhouse gas emissions



### Set a target for 2030 that is lower than the current target of at least 80% of Australia's power coming from renewable sources

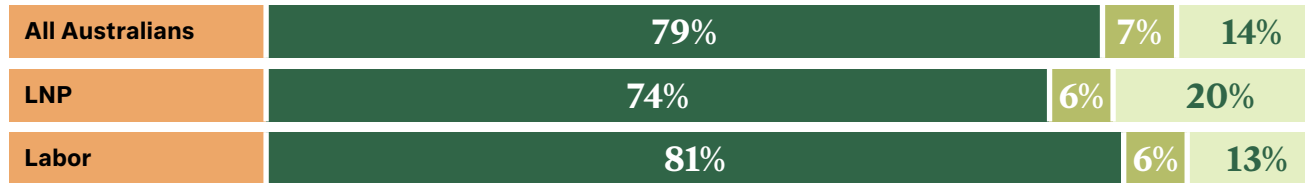


### Maintain the existing Australian ban on using nuclear power for domestic and industrial use

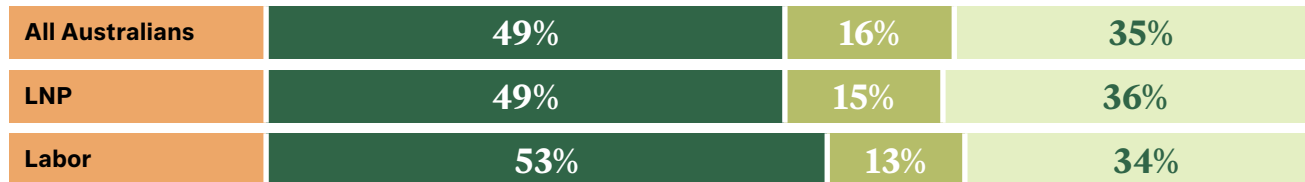


## Climate positive adaptation

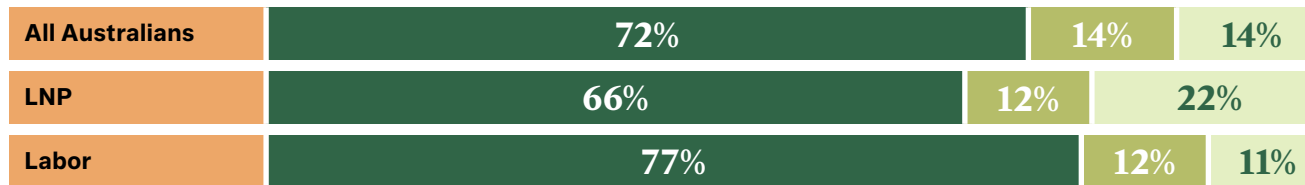
Provide government financial grants/subsidies for citizens to cyclone or bushfire-proof their homes



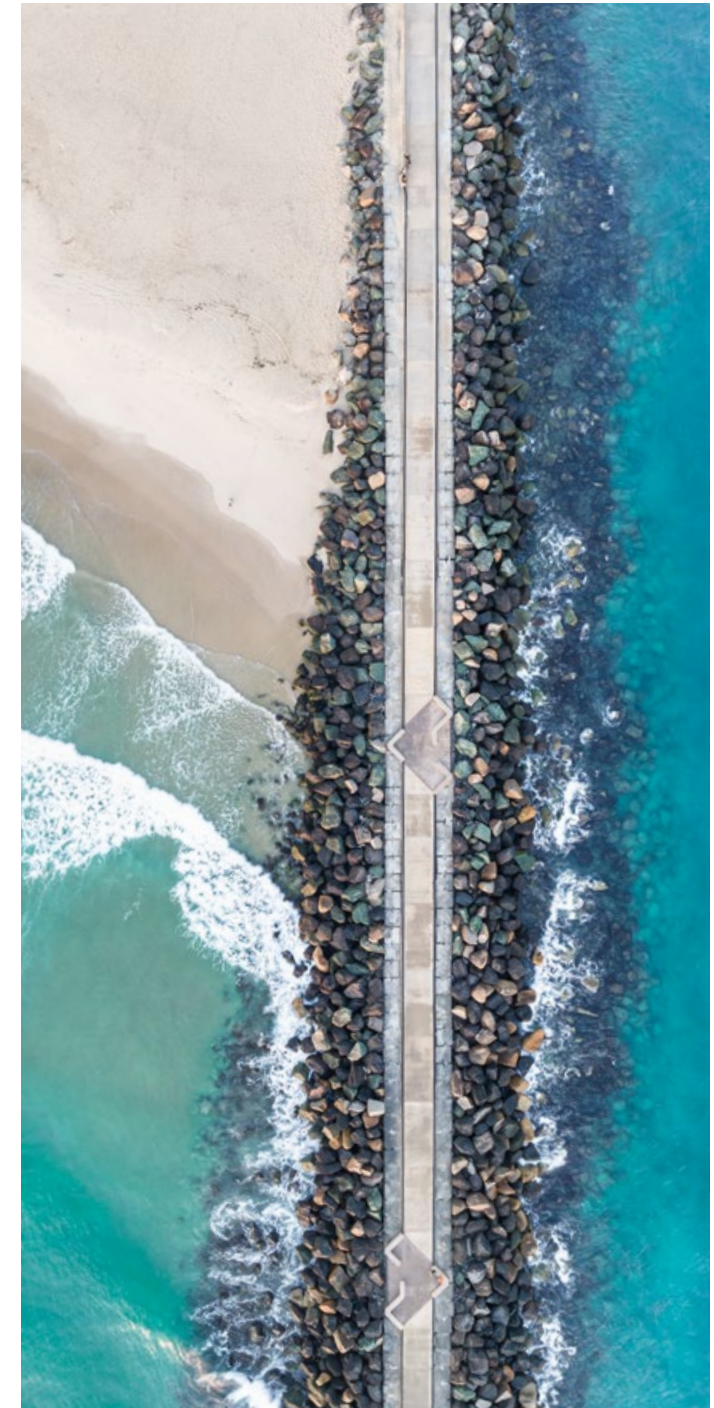
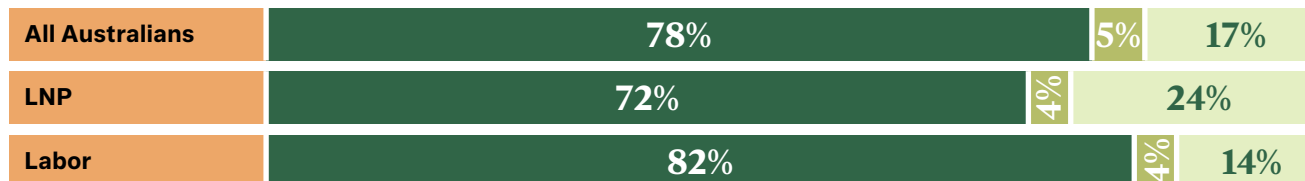
Construct concrete walls to prevent coastal erosion from sea-level rise, even if such walls are costly and detract from beach usage



Invest taxpayer money in technology solutions (such as human-made shade for coral reefs) to keep corals such as those on the Great Barrier Reef cool in warming oceans

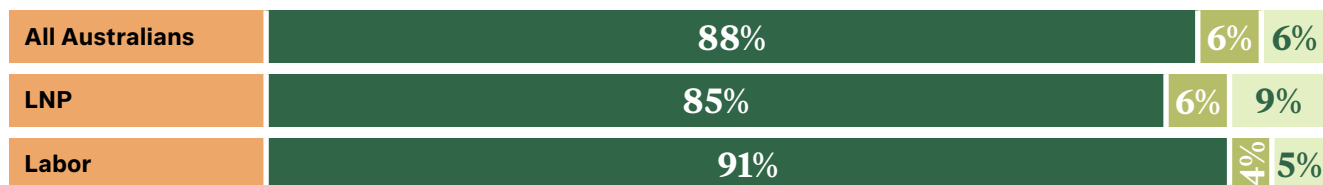


Immediately ban single-use plastics such as heavy-weight plastic shopping bags, plastic cotton bud sticks, and polystyrene cups, trays and packing beads

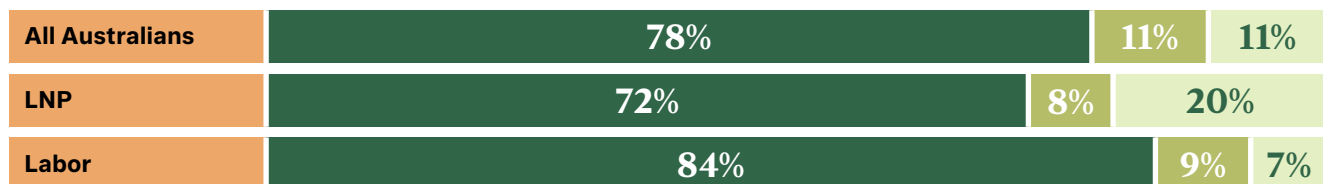




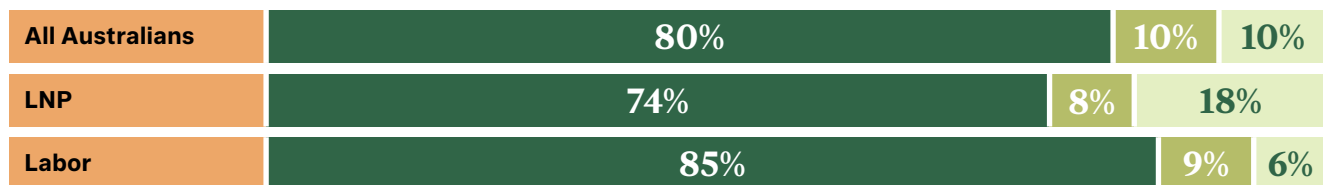
#### Reduce total waste generated in Australia by 10% per person by 2030



#### Boost public funding for the national landcare network to restore and connect wildlife habitat, even if this requires some loss of land that could be used for industry, farming or residential use



#### Permanently protect all high conservation value forests and bushlands through stronger regulations, regardless of the difficulty and costs involved in enforcing these regulations



Generally, support for the proposed climate-positive mitigation and adaptation policies is high (above 60% for 6 out of 8 climate positive mitigation policies, above 70% for 5 out of 6 climate positive adaptation policies) and low for climate-negative mitigation strategies (36–59% support across the nation).

Compared to last year, most policies received similar percentages of support. However, the support for all new vehicles to be electric by 2040 has decreased from 52% to 47% support of the Australian population.

Considering the major political parties, those intending to vote for the Labor party support most proposed climate-positive mitigation and adaptation strategies. In contrast, LNP voters showed greater support for climate-negative mitigation strategies.

## Do you, and/or the community with which you have identified yourself in the preceding questions, face any particular challenges to taking action against climate change?

This question was only asked of those respondents who identified as belonging to one or more of five disadvantaged/marginalised groups: Aboriginal and Torres Strait Islander people, culturally and linguistically diverse, living with a disability, LGBTQIA+ and homeless. Here we showcase some indicative responses.

"As a person with a disability, attending protests can be physically difficult, especially on days with more extreme weather. The disabled community at large would all face different difficulties with different aspects (e.g., some people require bendable straws to drink, so getting rid of all plastic bendy straws isn't possible for them unless a non-plastic version is made freely available)."

"Demographically I would say it is not of high priority to my area because of the cultural diversity and community beliefs."

"I have a couple of chronic illnesses that mean comfort is important. They also mean I spend about \$200-300 a month on medications and medical appointments at a minimum, which doesn't leave much for contributing to causes beyond keeping myself functioning. I don't think the price of things should go up, it's hard enough as it is. Government need to break up with the oil and gas industry, but they're too codependent."

"I have an emotionally demanding job, which hinders my ability to participate in events that promote combating climate change. For this reason, I am more inclined to partake in low-effort initiatives. Examples include donating to charities and keeping myself informed by reading articles surrounding climate change."

"Being homeless means it's difficult to focus on other things other than surviving, I can't afford to worry about things beyond me and even if it sounds selfish, that's the reality of my situation."

"I have complex mental health issues around PTSD, anxiety and complex depression. I wish I could engage more on this issue and other systemic social issues facing society, but I struggle to manage my mental health."

"Solar panels on the majority of homes, which is nice to see. People do seem to adhere to water restrictions when in place. Majority seem to recycle well e.g., the use of all bins (sorting) green waste, recycling and general waste. Seems that more homes have the smaller red bins, which shows an effort in reducing waste and more recycling and green waste being implemented."

"The desire to take action is limited by things such as rental status (and therefore accessibility of green energy is dependent on our landlords), lack of education of CALD groups in relation to the necessity of recycling, the limitations of council recycling programs (e.g., no readily available soft plastics recycling or council compost throughout most of Australia, though curby is very good!), no public soft plastic recycling (e.g., for takeaway plastic coffee cups!)"



# How have extreme climatic conditions impacted Australians?

## How many Australians have been directly exposed to potentially harmful climatic events and circumstances? What kinds of experiences have they had?

The survey asks Australians about their yearly experiences of natural disasters or extreme weather events. In 2023, 38% of the respondents had experienced at least one extreme weather or natural disaster event in the preceding year (compared to 31% in 2021 and 39% in 2022), and 46% had done so prior to the past 12 months (compared to 47% in 2021 and 48% in 2022).

Taken together, 60% of the respondents in 2023 had experienced such an event at some point (up from 52% in 2021 and 56% in 2022). Of these respondents, 2% were injured, 22% suffered financially in the most recent of these events, 56% suffered some property damage due to this event, and 12% suffered a considerable, major, or extreme amount of property damage. Only 29% of people with property damage (no matter the extent of damage) made an insurance claim, whereas 13% admitted they did not have the appropriate insurance cover. Thus, there remains 58% of people who did not claim insurance despite suffering property damage and having insurance coverage.

One in five Australians are not at all willing to move home even if their current residence was deemed uninsurable because of natural disasters; a further approximately one in five are only slightly willing to move from an uninsurable home. Approximately 40% of the population are willing to continue living in uninsurable homes damaged by natural disasters.

**Almost half of Australians (48%) indicated that a geographically distant event had impacted them, even if they had not experienced it. In a world where media can reach many people, disaster events go far beyond the original impact zone, and stories and images can reach the entire globe. Social connections across the vastness of the Australian continent also impact the experience of disaster events as family and friends reach out in times of need.**

Our findings remind those in policy and decision-making around disaster events that their decisions have potential impacts far beyond the directly impacted community/region.

The survey asks Australians about their experiences of environmental or climatic changes, circumstances, or events that they attribute to climate change. In 2023, 38% of the respondents had experienced at least one such event in the preceding year (compared to 24% in 2021 and 39% in 2022), and 41% had done so prior to the past 12 months (compared to 31% in 2021 and 37% in 2022). In total the prevalence of perceived climate change experiences was relatively stable in 2022-2023, with nearly half (46% of the 2023 respondents and 45% of the 2022 respondents having experienced such an event at some point in their life. Of note, these percentages were considerably higher than in 2021 when only 35% of respondents reported such a lifetime experience.

Australians who had experienced changes, events, or circumstances in the preceding year that they attribute to climate change scored significantly higher on nearly all climate variables than those who did not experience such events. This means they were, among other things, more likely to display higher levels of pro-environmental behaviours, higher levels of perceived vulnerability, and greater recognition of climate change as an important issue.

Almost one-third of Australians said that a particular event or experience altered their view about the seriousness of climate change. Examples of the kinds of events or experiences that triggered such changes of views about climate change are given on page 23 of this report.

Most Australians (68%) reported that they/their family had been harmed to some extent by climate change-related circumstances or events, with only approximately one-third (32%) not impacted at all. These percentages are similar to those found in the previous two years.

Related to this, the survey assessed Australians' perceptions of the vulnerability of their place of residence to the adverse effects of natural disasters, extreme weather, and/or climate change impacts, as well as their spatial distance from climate change. As expected, those who had previously experienced such events had higher perceived residential vulnerability and felt closer to climate change. Others reporting high levels of perceived residential vulnerability were rural residents, those aged 54 or younger, those who are non-religious, the more highly educated, those with left-leaning voting intentions, the full-time employed, those with higher incomes, those currently studying, non-home owners, members of a minority or marginalised group, and residents of Queensland or Northern Territory.

## The 2022 flood experience

Of the respondents, 31% affirmed that they, the people close to them or their property had been directly impacted by the 2022 Eastern Australian floods or their consequences. Respondents who reported this direct exposure to the flooding also reported greater climate change awareness, concern, distress, responsiveness, community involvement, pro-environmental behaviours, perceived residential vulnerability, and higher psychological adaptation.

Flooding exposure was related to (in descending order):

- perceived residential exposure to natural disaster and climate change risks
- frequency of engaging in pro-environmental behaviours
- climate change risk perception,
- frequency of engaging in pro-environmental behaviours, specifically because of concerns for the environment
- community involvement
- likelihood of participating in climate change activism.

Flooding exposure was not associated with psychological reactance (i.e., the tendency to feel pressure to adopt particular [unspecified] views about climate change) or subjective knowledge about climate change (i.e., the subjective rating of how much one knows about climate change). However, objectively measured climate change knowledge was higher among those that experienced the 2022 floods. This means that people exposed to one of Australia's major flooding events don't think they have different views (i.e., no difference in subjective knowledge), but in reality they do know more about climate change (i.e., the objective measure of knowledge).

## Where do Australians place responsibility for climate action?

The tendency to accept personal responsibility for climate change was generally higher among members of the progressive (compared to the conservative) sub-groups of the sample. It was also higher among those who reported having directly experienced a natural disaster, an extreme weather event, and an event or condition that they attributed to climate change. Australians without a petrol/diesel car (compared to those with such a car) accept greater personal responsibility for climate action.

**Most homeowners (66%) of the 1,700 Australians who either owned their own home or were buying it with a loan or mortgage reported that they had modified their homes in at least one way in the preceding five years to adapt to extreme weather and natural disasters, 27% had made at least three or more of the eight listed adaptations (including installing solar panels, solar hot water services, or a rainwater tank, and modifications to their home to reduce household energy usage [e.g., insulation]).**

Three types of climate change efficacy or empowerment beliefs were assessed in the survey: self-efficacy (i.e., a belief that one can organise and execute actions that are intended to contribute to the mitigation of, and/or adaptation to, climate change), response efficacy (i.e., a belief that one's actions will facilitate climate change mitigation and/or adaptation, and more generally, that one's actions will have the desired effect), and collective efficacy (i.e., a belief that one's group [or other collective's] can deal effectively with the threat and reality of climate change).

Responses suggested generally high levels of efficacy, especially among the population's progressive subgroups and those who reported having directly experienced a natural disaster/extreme weather event or an event or condition that they attributed to climate change.

**Normative beliefs (i.e., beliefs about what significant other people would want us to do) have increased compared to 2021 and have remained stable since 2022. These beliefs tended to be higher among progressive respondents (although there were no gender differences) and those with higher incomes, full-time employment, and/or prior natural disasters, extreme weather events, or climate change experiences.**

Beliefs about descriptive norms (i.e., beliefs regarding what other people in our social network are actually doing) tended to be higher among females, the more highly educated, those intending to vote for a left-leaning political party, those who lived in an inner-urban area, those who reported being in better than OK physical health, and those who reported having directly experienced a natural disaster, extreme weather event, or manifestation of climate change.

About one-third of Australians felt pressure to adopt particular (unspecified) views about climate change, with higher levels experienced by males, those who describe themselves as religious or as identifying with a particular religious faith, those intending to vote for one of the conservative political parties, and those who (partially or solely) own at least one petrol or diesel vehicle.



Please give brief details of the events or circumstances you experienced that you think might be due to climate change.

Here we showcase some indicative responses.

"A lot of rain that was not usual for the time of the year and floods where a family member lost a home in an area that did not normally have floods."

"Change in the seasons cycle, that is, seasons starting or finishing earlier than normal. For example, warm weather starting earlier than normal has resulted in fruit and vegetables maturing earlier than normal. So as a gardener, I've had to change planting and harvesting routines."

"Flood, bushfire, extreme heatwave, giant hail—it all happened in proximity and has some impact on my life. Giant hail damaged my roof."

"Growing up in Queensland the Great Barrier Reef was absolutely stunning—I used to go out every few months... How I've seen a big difference in over 20 years. It's bleaching and decreasing, quite sad. Also just watching the Antarctic melt away...leaving a lot of animals that depend on icebergs stranded."

"Recent thunderstorms, thunder and lightning like I have never experienced. The sky sounds angry! Then, we experience heat waves in the following days. I cannot remember the past having such extreme changes so quickly."

"Significant coastal erosion due to rising water levels washing away dunes."

"The consecutive extreme weather events one after the other. Suddenly it's non-stop bushfires and then once in a century floods and then extreme colds. How many more extremes can there possibly be?"

# How do extreme weather warnings reach Australians?

Since January 2022, a new national approach has been used for sending information and warnings to residents during extreme weather emergencies. Our survey asked about participants' experiences of **hearing or seeing extreme weather warnings** in the past 12 months.

Approximately half of Australians (57%) have heard or seen the warnings in this period. Almost two-thirds of the sample experienced a warning about one or more heavy rainfall/thunderstorm/severe storm (65%). Other warnings received were about a heatwave (49%), floods (38%), and bushfires (35%), while smaller groups of people experienced a warning about cyclones (8%) or another event (2%). About 46% of Australians said the most recent warning was about heavy rainfall/thunderstorm/severe storm. The most common sources of these warnings were the TV (42%), mobile phone app notifications (37%) or radio (29%). The least-cited sources were newspapers (8%) and email (4%). This difference in used resources means that it is important to communicate extreme weather warnings and other information about adverse emergencies via multiple platforms.

Several questionnaire items probed the effects of climatic and disaster events on respondents' use of insurance. As per the 2021 and 2022 new respondents survey, these questions pertained to the respondent's most recently experienced event. Of the respondents who experienced property damage (no matter the extent) for the most recent events, 29% claimed their **insurance**, and 88% of these claims were successful. Only twenty-three per cent of those affected with property damage were aware of if and how they had changed their insurance cover. Furthermore, (only) 61% indicated that they would be at least moderately willing to move their home if their current residence was deemed uninsurable due to its exposure to the risk of flooding, bushfires, or other natural disaster.





# Who are the Australians that support climate action?

The survey asked about pro-environmental behaviours (e.g., using public transport, carrying reusable drink containers, or growing fruit, vegetables or herbs). On average, Australians engaged in between five and six of the 16 behaviours listed, three of which were performed at least partly because of environmental concerns.

Community involvement (e.g., being part of a specific group, organisation or club) is positively associated with use of these pro-environmental behaviours, likelihood of climate change activism (e.g., donating money or volunteering time to an organisation working on climate change), and behavioural willingness (e.g., willingness to help reduce climate change by changing lifestyle, paying taxes).

Community involvement is higher among Australian males aged 18–54 who are religious, university educated, full-time employed, with a moderate to high income, currently studying, from a home where English is not the primary language, in good health, living in an inner-urban area, and who have experienced a natural disaster or other climate-adverse event.

It's worth noting that engaging in a higher number of pro-environmental behaviours was positively correlated with most other measures of climate change belief, concern, and action. This underscores the significant role that individual actions play in addressing climate change.

When asked to compare their pro-environmental behaviours with those of the average Australian, 42% think their behaviours are about the same as others, 39% think they display less of these behaviours than the average Australian, and only 19% believe they are doing more than the average Australian. These percentages suggest that our current sample was not overly represented by environmentalists ("greenies").

Notably, substantial proportions of Australians expressed interest in adopting five environmentally friendly actions in the future. For instance, about three-quarters of Australians who were not already doing so expressed interest in purchasing green power, generating their own energy, and installing solar energy battery storage for their homes. This suggests a potential for increased adoption of sustainable practices in the future.



The most frequently endorsed reasons for not engaging in environmentally friendly behaviours were  
(multiple answers allowed):



**32.3%**

I am too busy/I do not have enough time



**27.5%**

These actions are too expensive



**24%**

These actions are not going to stop or solve environmental problems



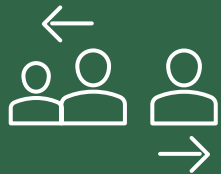
**18.6%**

These actions are too inconvenient/too much effort



**14.2%**

I do not know what to do



**26.5%**

I have my own routines, habits, and ways of doing things that are different from these



**14.2%**

I do not trust the authorities that give out information about environmental issues



**13.8%**

Environmental problems are too great for me/for one individual to have any impact



**13.4%**

These actions are not a high priority, so I never seem to get around to them



**13.4%**

I do not know whom to talk to, contact, or engage with on environmental issues

Of note, 5.9% of Australians reply to this to state that they do not believe climate change is happening, 5.7% don't think we are currently facing environmental problems worth addressing, and 2.4% believe they did not cause any environmental problems, so have no responsibility to fix them.





## Do Australians recycle?

Australians were asked about the frequency with which they recycle twelve household items (e.g., paper, cardboard, e-waste). On average, participants indicated they recycled the items “often,” but this average obscured significant differences among items. Certain items, such as cardboard, paper and glass bottles, were recycled almost always by most respondents. In contrast, others—such as building materials and tyres—were recycled infrequently, presumably partly due to limited opportunities.

Older Australians, women, parents, those not employed full-time, those with lower income, those currently studying, those predominantly speaking English at home, and individuals who own their own home and/or a motor vehicle reported higher recycling levels. Presumably, these groups have more opportunities to recycle than others. Nonetheless, it is worth noting that the demographic differences in recycling practices did not follow the same pattern evident in the majority of climate change variables.

People who have higher recycling habits tend to have more positive views towards the Great Barrier Reef (e.g., proud that GBR is a World Heritage Area; GBR is well managed) and are more likely to report pro-environmental changes in their behaviour due to climate change impacts.

Given the low strength of associations between recycling and climate change variables, exploring avenues beyond environmental benefits is crucial to encourage Australians to recycle more. For instance, emphasising the economic advantages of recycling, such as job creation in the recycling industry or cost savings for households and businesses through reduced waste disposal fees, could be effective. Highlighting the social benefits, such as community engagement through recycling programs or the positive impact on local neighbourhoods and wildlife habitats, may also resonate with people.




Moreover, framing recycling as a civic duty or a responsibility towards future generations could appeal to individuals’ sense of social responsibility and morality.

Incorporating elements of convenience and efficiency, such as providing accessible recycling facilities and streamlining recycling processes, can further incentivise participation.

By diversifying the messaging around recycling and emphasising its multifaceted benefits including but beyond environmental concerns (though noting the positive views towards the GBR), we can potentially broaden its appeal and encourage more widespread adoption among Australians.

## What do Australians think about different energy sources?


This year, questions were added about opinions on different sources of energy production. Three different energy sources were distinguished: those that entail high emissions of greenhouse gasses (i.e., biomass, coal, gas, oil), those that are relatively “clean” (i.e., hydroelectric, solar, wind), and nuclear. Participants indicated on a 5-point scale ranging from 1 (very unfavourable) to 5 (very favourable) how favourable they felt about each of the 8 energy sources. An answer of 3 indicated that their attitude was neither favourable nor unfavourable. For comparison purposes, composite scores for each of high emission sources (4 items) and clean energy sources (3 items) were formed by averaging the responses to the items in each category.

	<b>High emissions of greenhouse gasses</b> (i.e., biomass, coal, gas, oil)
	<b>Relatively “clean”</b> (i.e., hydroelectric, solar, wind)
	<b>Nuclear</b>

Most Australians expressed more favourable attitudes towards clean energy (mean = 4.18 on the 5-point scale) than nuclear power (mean = 2.92/5), which received slightly more positive ratings than high-emission sources (mean = 2.81/5).

**Specifically, progressive respondents, particularly those with a university education (mean = 4.3/5) and/or intending to vote for left-leaning political parties (mean = 4.4/5), reported more positive attitudes towards clean energy sources. Conversely, conservative respondents, especially those older, less educated, right-leaning, religious, parents, homeowners and/or vehicle owners, tended to have rather indecisive attitudes to clean energy sources (with mean scores around 3.0), and had more favourable attitudes towards nuclear and high-emission energy sources than their counterparts. Full details can be found in our Technical Report (Paas et al., 2024).**

Respondents with firsthand experiences of natural disasters or climate change impacts tended to rate clean energy sources more favourably (means scores of around 4.25) while rating nuclear and high emission sources less favourably compared to those without such experiences (scoring on average just below the scale mid-point, approximately 2.7 or 2.6, respectively). Additionally, men reported more favourable attitudes to nuclear energy than their female counterparts (means of 3.36 vs 2.48, respectively).



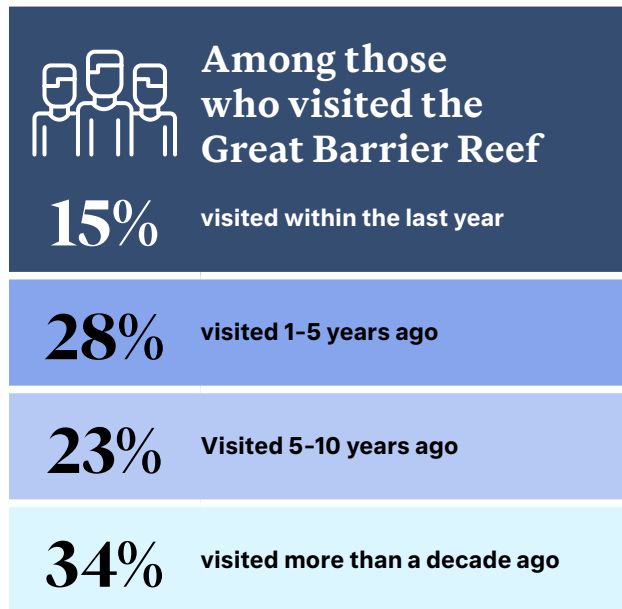
Respondents with first-hand experiences of natural disasters or climate change impacts tended to rate clean energy sources more favourably

# The Great Barrier Reef (GBR): An Australian climate change icon?

In 2023, in consultation with CSIRO scientists, the survey introduced questions concerning visits to the GBR, beliefs regarding climate change impacts on the GBR, and sentiments and attitudes towards the Reef and its challenges. Given the GBR's status as a nature superstar and lately a harbinger of climate impacts, we were interested in exploring nationwide responses to its current predicament.

Notably, 96% of Australians are familiar with the GBR. Nearly half of Australians have visited the GBR at least once in their life. This strong connection to the Reef can be a powerful motivator for taking action to protect it.

Among those who visited, only 15% did so within the past year, 28% did so 1–5 years ago, 23% visited 5–10 years ago, and the remaining 34% visited more than a decade ago.



Our findings reflect a range of perspectives on climate change's impact on the GBR. While a significant majority (71%) of Australians believe climate change poses an immediate threat to the GBR, some (6%) perceive it as a threat but do not require immediate action, while a further 13% indicate a need for further evidence to formulate an opinion. Contrastingly, 3% think climate change is not a threat to the GBR and 5% don't have an opinion on the matter at all.

## What do Australians feel when thinking of the GBR?

When Australians hear about climate-related damage to the GBR, a significant majority indicate it makes them feel at least a little bit sad (92%), disappointed (88%), helpless (80%), angry (79%), and afraid (70%).

When asked to what extent Australians agree with statements about the GBR, more than 8 out of 10 Australians feel very proud that the GBR is a World Heritage area, 7 out of 10 find protection of the GBR a responsibility for all Australians, and 6 out of 10 feel that the GBR should be on the World Heritage in Danger list. Furthermore, half of Australians strongly agree that the GBR is part of their Australian identity, and only 14% state firmly that it is not their responsibility to protect the GBR. In comparison, only 30% of Australians were optimistic about the future of the GBR.

According to our survey, almost 70% said climate change is a serious/extreme threat to the GBR. Land-based runoff

(67%), deep sea mining, and marine debris/beach littering (both 63%) are also high on this list of threats to the reef.

Forty per cent of Australians believe the governance of GBR is a serious or extreme threat to the GBR, and only 24% feel confident that the GBR is well managed.

People who intended to vote for right-leaning parties reported fewer negative feelings about the GBR (e.g., less sadness, anger, or helplessness), fewer positive views about the GBR (e.g., less proud about it being a World Heritage Area), and fewer threats to the GBR (e.g., illegal fishing, tourism, climate change) compared to those intending to vote for left-leaning parties.







# Final thoughts and policy and practice implications

In this report, we focused only on the findings from the new respondents' survey. One reason to do so was that the repeat respondents, on average, were considerably older than the national population and the new respondent sample. They were also more settled, being parents and homeowners than is probably true of the nation's population. More details on this can be found in our technical report.

In total, the 2023 Climate Action Survey—a significant undertaking—involved the collection of approximately 400 bits of information from each of the 4,058 respondents (1,184 repeat respondents and 2,874 new respondents), resulting in more than 1.5 million data points. This wealth of information allows for a multitude of analyses and findings. This report presents a modest selection of these findings, promising many more. Even with only a subset of findings now available, there is a risk that major takeaway points may not be fully appreciated.

The demographic sub-groups of the sample, representing a diverse and rich tapestry of individuals, display high and low levels of climate change concern.

The following reported relatively high levels of climate change understanding, concern and action:

- women
- respondents aged 35 years or under
- students
- inner-urban residents
- respondents educated to university level
- those intending to vote for a progressive political party.

In contrast, climate change denial, disregard and inaction were more common among:

- men
- older people
- religious people
- less highly educated people
- more politically conservative members of the sample.

These findings mirrored those obtained in the 2021 and 2022 surveys and underscore the importance of ongoing research and the continuous evolution of our understanding of climate change, instilling hope for future progress.

## Policy and practice implications of the survey findings

Like the first two Climate Action Surveys conducted in 2021 and 2022, this third survey sheds light on Australians' understandings of and responses to climate change. Examination of the findings over the three years of the survey reveals that there was no consistent, statistically significant increase or decrease in the average score of any of the 30-odd climate change variables measured. Nonetheless, non-significant three-year trends were evident for three of the variables: specifically, the mean scores for self-reported pro-environmental behaviours, climate change descriptive norms, and climate change risk perception increased slightly from 2021 to 2022, and again from 2022 to 2023. There were also some significant differences between the 2023 data and one of the preceding years. Of particular note are (a) a set of variables that displayed higher mean scores in 2023 than in 2022 (climate change belief/acceptance, perceived importance of the climate change issue, and objective knowledge of climate change are prime examples), and (b) a set of variables that displayed higher mean scores in 2022 than in 2021, and maintained that advantage over the 2021 scores in 2023 (examples include normative beliefs, personal responsibility for climate change, climate change response efficacy, and climate change distress). Future iterations of the Climate Action Survey will reveal whether these differences are genuine shifts, rather than temporary blips, in Australians' climate change attitudes and behaviours.

**As interesting (and promising) as these few trends are, they should not overshadow the over-arching finding that climate change beliefs, attitudes and behaviours have not changed greatly from year to year. Possible explanations for this relative stability are many, ranging from immediate domestic concerns with the cost of living to major international events and conditions. Regardless of the reasons, the findings suggest that current attempts to shift public opinions and behaviours are not having a sufficiently great impact. More and**

**different strategies seem needed. As discussed below, findings from the 2023 CAS provide insights into possible strategies to increase the prevalence and intensity of climate action.**

The survey consistently finds that individuals with direct experience of natural disasters or adverse climatic events demonstrate a greater understanding of climate change, heightened awareness, concern, and distress regarding its impacts. They also exhibit more pro-environmental behaviours and greater efficacy in addressing climate change. Of course, waiting for widespread climate events to occur and spur action is not a responsible nor feasible policy response. Instead, having multiple (media) channels (e.g., news media, scientists and scientific organisations such as the Bureau of Meteorology) that publicise disaster events and draw attention to the likely causal contribution of climate change to these events is important to help people understand climate impacts, especially if these events are not experienced first-hand. This survey and previous iterations provide evidence-based opportunities for likely meaningful steps that can be pursued through policy and practice to address the challenges of Australian climate action.

At a policy level, the study reveals broad support among respondents for government initiatives concerning future energy sources, such as limiting new coal-fired power plants, taxing carbon emissions with the money invested in clean, renewable energy and aiding individuals affected by the transition away from fossil fuels. The survey identifies demographic sub-groups where this support is particularly strong (e.g., Labor voters, students, non-English-speaking households) and weak (e.g., LNP voters, individuals over 55, rural residents). It also highlights policies that receive less robust backing; for instance, while many environmentally friendly measures garnered support from 70% to 80% of respondents, mandates such as requiring all new vehicles to be electric by 2040, maintaining the existing ban on the use of nuclear power, and constructing costly coastal walls to combat sea-level rise were endorsed by only about 50% of participants.

The survey findings can inform more effective climate interventions, including strategies such as presenting social norms data, highlighting environmentally friendly behaviours of community leaders, and offering feedback to individuals or communities on their progress towards sustainability goals over time.

Consistent with findings from 2021 and 2022, the current survey underscores that normative beliefs (i.e., beliefs about what significant other people would want us to do) correlate more strongly with self-reported climate actions than descriptive norms (i.e., beliefs regarding what other people in our social network are doing). This consistent pattern suggests that interventions aimed at social influence might achieve greater effectiveness by targeting normative beliefs rather than descriptive norms.

The relatively strong associations found between community involvement and use of pro-environmental behaviours, willingness to behave climate friendly, and likelihood of climate change activism has ramifications for communication strategies. Together with the findings pertaining to the importance of normative beliefs, this suggests that targeting people in community groups (whether religious and/or civil society groups) might increase the success rate of pro-environmental interventions.

The survey results also shed light on the cost-of-living crisis and the potential effectiveness of interventions utilising financial incentives and deterrents. Findings suggest that the population can be segmented based on their willingness to contribute to environmental sustainability financially. Typically, individuals with higher education and income show greater willingness to contribute financially and could be encouraged or required to make larger contributions, such as through increased levies on premium fuels. However, alternative strategies will be necessary for Australians unwilling or unable to make such financial commitments. Effective implementation of these and other interventions hinges on well-targeted communication strategies.



The surveys revealed that approximately one-third of respondents reported medium-to-high levels of psychological reactance, indicating that their freedom to express their views on climate change is restricted. Notably, average scores on this measure were higher in 2022 and 2023 compared to 2021. This also has implications for communication strategies, suggesting that, to be effective, climate messages need to be framed in ways that persuade or nudge their audiences, rather than demand or force attitudinal or behavioural change.

Effective communication strategies must address individual barriers to behaviour change to achieve success. The primary reason for not adopting climate-friendly behaviours is often being “too busy”. To enhance impact and engagement, introducing time-efficient environmental alternatives could prove beneficial. Similarly, addressing the second barrier—which addresses the costs of alternatives—would be promoting reasonably priced and convenient behavioural options that can increase adoption rates. Tailoring these solutions to meet the needs of financially constrained individuals with inexpensive alternatives while offering convenience to time-strapped individuals is likely to enhance effectiveness. The third most common barrier cited is the resistance to changing established routines and habits. Research indicates that habits are challenging to alter without changes to the physical or social context. Therefore, effective strategies may involve targeting individuals who are currently changing, or have recently changed, residence, as such transitions provide opportunities to rethink and adopt environmentally significant behaviours. Again, strategies can be conveyed in community groups for further impact.

Furthermore, environmental education and awareness are most impactful when individuals are motivated to change their behaviour. More than 13% of respondents reported a notable barrier (such as it being too expensive) and not a lack of motivation but rather a lack of knowledge about what actions to take or with whom to engage on environmental issues. Additionally, there is evidence in this survey that many Australians feel that their individual efforts won’t solve the climate change problem. Here, the prevalence of communication surrounding current and forecast disaster events needs to be considered in light of its capacity to disempower and disenchant Australians to pursue pro-environmental behaviours and climate action generally. Australians are also motivated by their responsibility to each other, and this finding can be used to guide climate change communication strategies to ultimately foster effective behaviour change. For example, communication that links individual efforts to their impacts on entire communities may increase belief in the efficacy of individual actions.

The survey also identifies segments of the population that may be less receptive to targeted interventions. Approximately 1% of respondents consistently deny anthropogenic climate change, while another 5% express high scepticism. Responses from these groups suggest strong opposition to the issue and its advocates, indicating that efforts to persuade them about the seriousness of climate change may yield limited success and could potentially be resource-intensive without substantial returns. Targeting the approximate 19% of the population who are unconvinced (ambivalent, unsure) about climate change may provide a better return on investment.

Finally, the results presented here can be interpreted in the historical, social, cultural and political context of Australia. For example, there is solid evidence throughout this survey (and previous iterations) that Australian women are leading climate action and are likely sites for meaningful climate action. This is a significant observation given ongoing efforts to elevate the status of women in Australian society. Another is recognition of the vastness and geographical diversity of Australia—the tyranny of distance—as expressed in the spatial distancing of climate change impacts that can be unpacked for its potential to underpin or alter communication strategies. Our findings surrounding the connections between urban and regional Australians for example, challenge those repeated claims in public debate that espouse division.

Other cultural myths can also be exploited via reference to this data including those related to housing (the suburban dream) and Australian’s identity steeped in love of our “big nature” with landmarks such as the Great Barrier Reef. Given the percentage of Australians born overseas or with parents born overseas, the progressive views of Australia’s ethnic communities on climate action are also worth highlighting. This is a small selection to guide how this survey can be interpreted in context. Many others are possible, and we are able to tailor to interest and invite proposals for collaboration.

As we ready ourselves for several elections in the coming year (e.g., Queenslanders have a state election in October 2024, all Australians have a federal election in 2025, as well as 2025 state elections in Western Australia and Tasmania), our survey provides peerless counsel about what climate action Australians want and will support.

We look forward to presenting our next 2024 Climate Action Survey results to guide policy and decision making as Australia and the Australian and the world community struggle to meet the challenge of a just transition to net zero emissions and a climate resilient future.

## Is there anything else you would like to say about your views on climate change or natural disasters?

Here we showcase some indicative responses.

### Examples from open answers

"Climate Change conflicts with our economy, the changes must be in increments along with government-implicated policies. It is very complex, and it is up to the government, scientists and economists to come up with a plan. I think people generally are turned off. Climate activists have been protesting and are considered radicals. It's not up to climate activists to speak on the effect of climate change and figure out suitable and economic replacements, it is up to economists and the government. It's a very complex situation but blocking traffic and will cause issues with the public to dismiss their claims out of spite."

"Climate change has been happening since the planet has existed, and it is very naive and uneducated to believe that the climate, weather, continents and all life on this planet would now or ever remain the same for any extended period of time just through the natural cycle of planetary changes. The biggest factor for climate change is how the surface of the sun behaves, which we neither have any effect on or ability to control."

"Climate change is natural, mostly. We just need to stop polluting the environment."

"Climate change is weather, and you can't control weather. Renewable energy is expensive, unreliable, and completely unnecessary."

"God gave us Earth to look after it. We should."

"I'm terrified. I'm scared to have children. We're all going to have a rough future."

"It appears to be a sufficiently important issue that requires universal attention and seems to be an issue that will affect future generations in a negative way if changes are not implemented very soon."

"It seems that the industry needs to do more than consumers."

"Natural disasters happen and are part of the Australian landscape and have always been this way. Climate change is a hoax propagated by international elites who wish to rule the world and strip the nations of all of their wealth and freedom."

"To be honest we are more concerned about cost of living than climate change and are just trying to stay afloat."

"Yes, I believe that other countries such as China and India who contribute to the majority of the world's pollution should be taken to task rather than focusing on Australia that only produces .04% of the worlds greenhouse gasses. In my lifetime I have witnessed many floods, fires, droughts and other natural weather patterns that I do not believe are caused by anything other than regular weather patterns over time."



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