



REPORT

# Extreme Weather Events

*Survey of Canadians*

DATE 2024-08-20



# Methodology

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## Method

Online survey among respondents 18 years of age or older.

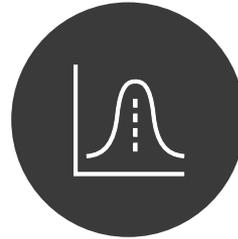
(Canadian sample: n= 1,526).

Respondents had the option of completing the survey in English or in French and were randomly recruited using LEO's online panel.



## When

August 16 to August 18, 2024



## Margin of error

For comparison purposes, a probability sample of this size yields a margin of error no greater than  $\pm 2.50\%$ , (19 times out of 20) for the Canadian sample.



## Weighting

Results were weighted according to **age, gender, mother tongue, region, education and presence of children in the household** in order to ensure a representative sample of the Canadian population.

# Methodology

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## Significant differences

Data in bold **red** characters indicate a significantly lower proportion than that of other respondents. Conversely, data in bold **green** characters indicate a significantly higher proportion than that of other respondents.



## Rounded data

The numbers presented have been rounded up. However, the numbers before rounding were used to calculate the sums presented and might therefore not correspond to the manual addition of these numbers.



## Questions

Have questions about the data presented in this report? Please contact Andrew Enns, Executive Vice-President, Central Canada at the following e-mail addresses: [aenns@leger360.com](mailto:aenns@leger360.com)

*A more detailed methodology is presented in the Appendix.*

# Methodology

Leger is the polling firm that has presented the most accurate election survey data, on average, over the last ten years in Canada. During the last federal election in 2021, Leger was once again **the most accurate firm in the country**. This accuracy is attributed to the quality of the LEO panel and rigorous application of methodological rules by Leger's 600 employees, including 200 professionals in Leger's eight offices across Canada (Montreal, Toronto, Quebec City, Winnipeg, Calgary, Edmonton and Vancouver) and in the United States (New York).

Poll aggregator 338Canada.com gave Leger the highest rating among all polling firms in Canada for the accuracy of its studies. See <https://338canada.com/pollster-ratings.htm>

## 2021 CANADIAN FEDERAL ELECTION



### LEGER SURVEY

Published in *Le Journal de Montréal*  
and *The National Post/Postmedia*  
September 18, 2021

|       |       |       |      |      |      |
|-------|-------|-------|------|------|------|
| 33%   | 32%   | 19%   | 7%   | 6%   | 2%   |
| 33.7% | 32.6% | 17.8% | 7.7% | 5.0% | 2.3% |

### OFFICIAL RESULTS

2021 Canadian Federal Election\*

# Key Highlights (1/2)

*From August 16 to 18, 2024, we surveyed Canadians about their perceptions of climate change, its causes, and desired future actions to fight it.*

## Some of the key highlights of our survey about extreme weather events in Canada include...

- More than one-third of Canadians (35%) have been personally impacted by an extreme event. This proportion is higher among Quebecers (41%). There is a significant 12-point increase in the number of Canadians who have personally been impacted by an event compared to when the question was last asked in June 2023 (35% vs. 23% in 2023).
- Six out of ten Canadians (61%) think that extreme weather events will occur more often in the future.
- Seven out of ten Canadians (70%) are concerned that they will experience increasingly hot summers and more heat waves in the future. This proportion is higher among Quebecers (76%). There is a 5-point increase in the number of Canadians concerned by increasingly hot summers compared to when the question was last asked in July 2023 (70% vs. 65% in 2023).
- Three out of five Canadians (63%) are worried about the changes in the climate in Canada, while 19% are not worried, and 10% feel that there have been no changes.

## Key Highlights (2/2)

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- Nearly half of Canadians (48%) think there is still time to reverse the consequences of climate change, while more than one-third (38%) think it is too late to reverse the consequences. More than one Canadian out of ten (13%) do not believe in climate change. This proportion is significantly higher among Canadians living in rural areas (22%).
- Half of Canadians (48%) support using the carbon tax revenue to better prepare Canada for the effects of climate change instead of rebating the tax to consumers, while one-third (34%) are opposed, and 18% don't know.

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REPORT

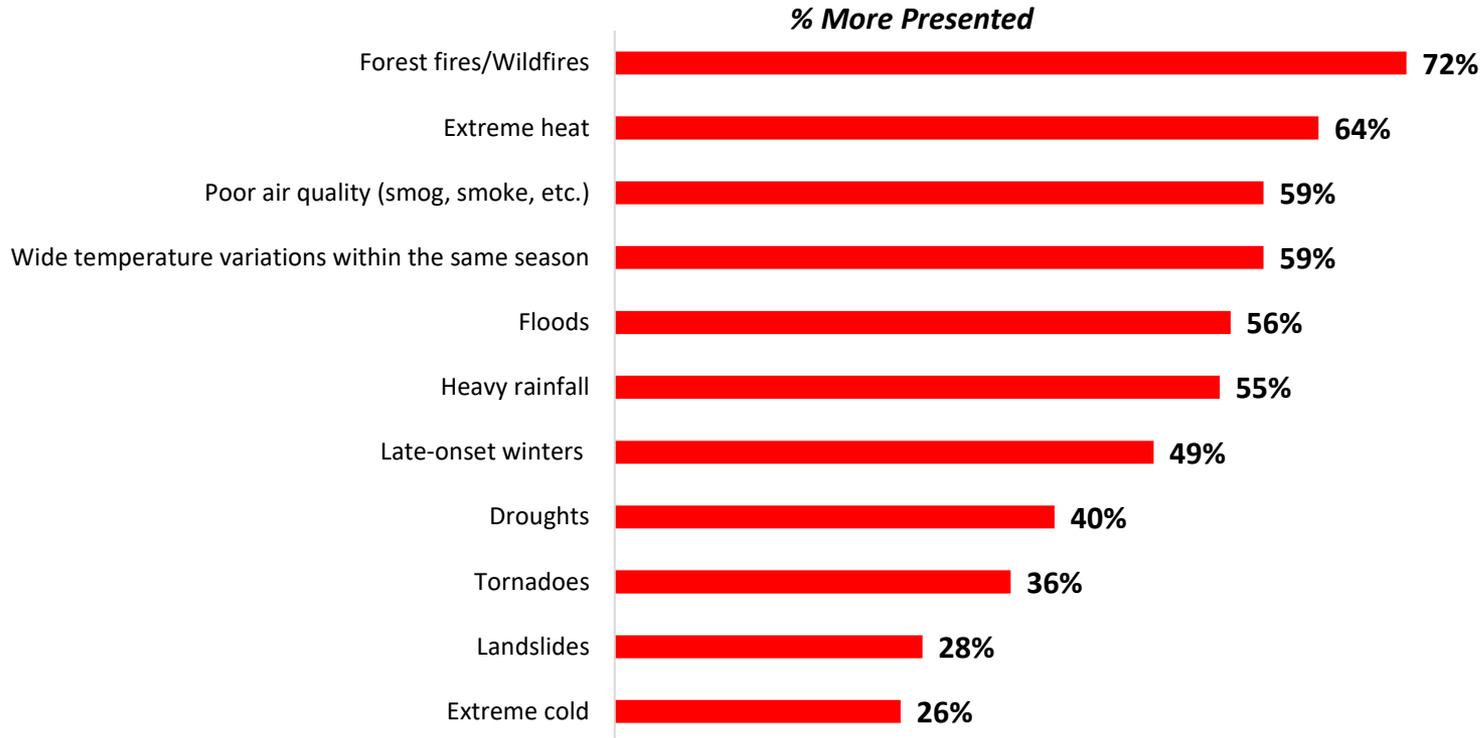
# Detailed Results



# Frequency of Environmental Events Over Five Years (1/2)

**Q1.** In your opinion, are there more, the same or fewer of the following events in Canada compared to five years ago?

Base: All respondents (n=1,526)



# Frequency of Environmental Events Over Five Years (2/2)

**Q1.** In your opinion, are there more, the same or fewer of the following events in Canada compared to five years ago?

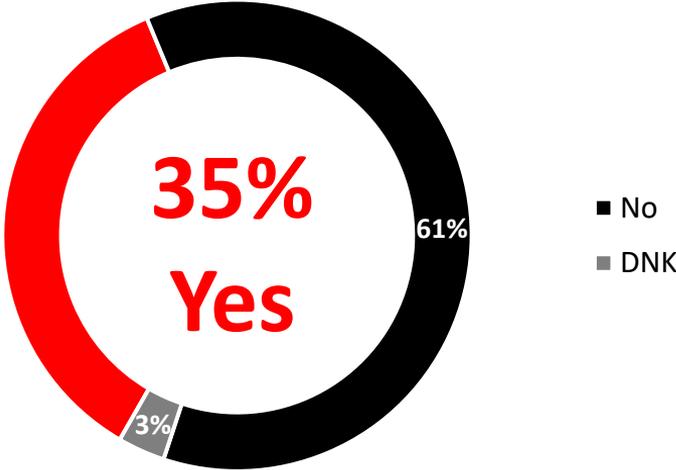
Base: All respondents

| <i>% More Presented</i>                            | Total Canada | ATL        | QC         | ON         | MB/SK      | AB         | BC         | Male       | Female     | 18-34      | 35-54      | 55+        | Urban      | Sub-Urban  | Rural |
|--|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|
| Unweighted n=                                      | 1,526        | 101        | 417        | 602        | 128        | 127        | 151        | 714        | 686        | 378        | 445        | 703        | 636        | 606        | 274   |
| Forest fires/Wildfires                             | <b>72%</b>   | 71%        | 76%        | 71%        | 64%        | <b>84%</b> | 65%        | <b>67%</b> | <b>78%</b> | 68%        | <b>67%</b> | <b>80%</b> | <b>68%</b> | <b>76%</b> | 75%   |
| Extreme heat                                       | <b>64%</b>   | 62%        | <b>74%</b> | 62%        | <b>51%</b> | 59%        | 62%        | <b>61%</b> | <b>67%</b> | 60%        | 61%        | <b>68%</b> | 63%        | <b>68%</b> | 60%   |
| Poor air quality (smog, smoke, etc.)               | <b>59%</b>   | 50%        | 62%        | <b>54%</b> | 66%        | <b>76%</b> | 53%        | <b>54%</b> | <b>63%</b> | 56%        | 60%        | 61%        | 59%        | 61%        | 56%   |
| Wide temperature variations within the same season | <b>59%</b>   | 53%        | <b>70%</b> | 61%        | 55%        | 49%        | <b>48%</b> | <b>55%</b> | <b>63%</b> | 56%        | 57%        | 62%        | 59%        | 59%        | 58%   |
| Floods   | <b>56%</b>   | 61%        | <b>78%</b> | 56%        | <b>30%</b> | <b>33%</b> | <b>46%</b> | <b>51%</b> | <b>60%</b> | <b>45%</b> | 53%        | <b>65%</b> | 54%        | <b>60%</b> | 53%   |
| Heavy rainfall                                     | <b>55%</b>   | 55%        | <b>75%</b> | <b>63%</b> | <b>27%</b> | <b>24%</b> | <b>34%</b> | <b>50%</b> | <b>59%</b> | <b>43%</b> | 51%        | <b>65%</b> | 52%        | <b>59%</b> | 54%   |
| Late-onset winters                                 | <b>49%</b>   | 45%        | <b>59%</b> | 52%        | <b>35%</b> | 42%        | <b>40%</b> | <b>46%</b> | <b>53%</b> | 51%        | 48%        | 49%        | 47%        | 52%        | 49%   |
| Droughts   | <b>40%</b>   | 49%        | <b>46%</b> | <b>30%</b> | 37%        | 50%        | <b>51%</b> | 40%        | 41%        | <b>34%</b> | 39%        | <b>46%</b> | 39%        | 40%        | 45%   |
| Tornadoes  | <b>36%</b>   | <b>24%</b> | <b>54%</b> | 39%        | <b>25%</b> | <b>22%</b> | <b>25%</b> | <b>32%</b> | <b>39%</b> | <b>30%</b> | 33%        | <b>43%</b> | 35%        | 36%        | 42%   |
| Landslides   | <b>28%</b>   | 22%        | <b>41%</b> | <b>21%</b> | <b>14%</b> | <b>16%</b> | <b>47%</b> | 27%        | 30%        | <b>20%</b> | <b>24%</b> | <b>38%</b> | 28%        | 28%        | 31%   |
| Extreme cold                                       | <b>26%</b>   | 21%        | 24%        | <b>21%</b> | 26%        | <b>37%</b> | <b>35%</b> | 23%        | 28%        | 30%        | 25%        | 24%        | 26%        | 27%        | 22%   |

# Personal Impact of Extreme Weather Events in the Past Year

**Q2.** In the past 12 months, have you been personally impacted by an extreme weather event (such as extreme heat, flooding, fires, tornadoes, etc.)?

Base: All respondents (n=1,526)



|               | Total Canada | ATL | QC         | ON         | MB/SK      | AB  | BC  | Male       | Female     | 18-34      | 35-54 | 55+        | Urban | Sub-Urban | Rural | Total June 2023 |     |
|---------------|--------------|-----|------------|------------|------------|-----|-----|------------|------------|------------|-------|------------|-------|-----------|-------|-----------------|-----|
| Unweighted n= | 1,526        | 101 | 417        | 602        | 128        | 127 | 151 | 714        | 686        | 378        | 445   | 703        | 636   | 606       | 274   | 1,514           |     |
| Yes           | <b>35%</b>   | 47% | <b>41%</b> | <b>31%</b> | <b>21%</b> | 43% | 32% | <b>32%</b> | <b>39%</b> | <b>42%</b> | 35%   | <b>31%</b> | 35%   | 37%       | 32%   | <b>23%</b>      | +12 |
| No            | <b>61%</b>   | 52% | 57%        | 63%        | <b>78%</b> | 54% | 65% | <b>65%</b> | <b>58%</b> | <b>53%</b> | 61%   | <b>67%</b> | 62%   | 60%       | 66%   | <b>74%</b>      | -13 |
| I don't know  | <b>3%</b>    | 1%  | <b>1%</b>  | <b>5%</b>  | 1%         | 3%  | 3%  | 3%         | 3%         | 5%         | 4%    | <b>2%</b>  | 4%    | 3%        | 3%    | <b>4%</b>       | -1  |

# Expectations for the Frequency of Extreme Weather Events

**Q3.** In the future, do you think extreme weather events (such as wildfires, floods, hurricanes, tornadoes, droughts, etc.) will occur more often, about as often or less often than they do currently?

Base: All respondents (n=1,526)

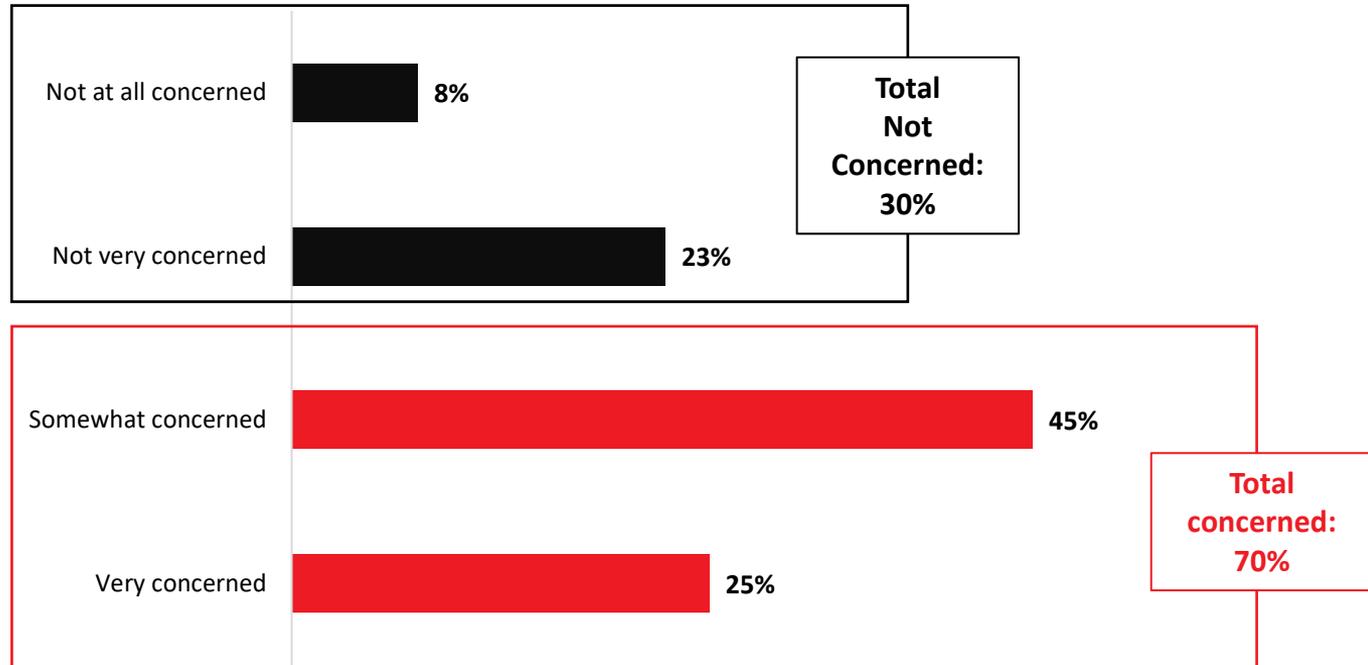


|                | Total Canada | ATL | QC         | ON        | MB/SK      | AB         | BC        | Male | Female | 18-34     | 35-54 | 55+       | Urban     | Sub-Urban | Rural | Total June 2023 |    |
|----------------|--------------|-----|------------|-----------|------------|------------|-----------|------|--------|-----------|-------|-----------|-----------|-----------|-------|-----------------|----|
| Unweighted n=  | 1,526        | 101 | 417        | 602       | 128        | 127        | 151       | 714  | 686    | 378       | 445   | 703       | 636       | 606       | 274   | 1,514           |    |
| More often     | <b>61%</b>   | 64% | <b>72%</b> | 60%       | <b>48%</b> | <b>48%</b> | 61%       | 59%  | 63%    | 59%       | 58%   | 64%       | 61%       | 64%       | 57%   | <b>65%</b>      | -4 |
| About as often | <b>30%</b>   | 26% | <b>23%</b> | 28%       | <b>42%</b> | <b>40%</b> | 36%       | 33%  | 27%    | 29%       | 31%   | 29%       | 31%       | 28%       | 34%   | <b>29%</b>      | +1 |
| Less often     | <b>3%</b>    | 6%  | 2%         | 3%        | 2%         | 5%         | <b>0%</b> | 3%   | 3%     | <b>5%</b> | 3%    | <b>1%</b> | <b>1%</b> | 3%        | 5%    | <b>2%</b>       | +1 |
| I don't know   | <b>6%</b>    | 5%  | <b>3%</b>  | <b>9%</b> | 8%         | 8%         | 3%        | 6%   | 7%     | 6%        | 8%    | 6%        | 8%        | 5%        | 4%    | <b>4%</b>       | +2 |

# Concern About Increasingly Hot Summers and Heat Waves (1/2) **Leger**

**Q4.** How concerned are you that you will experience increasingly hot summers and more heat waves where you live in the future?

Base: All respondents (n=1,526)



# Concern About Increasingly Hot Summers and Heat Waves (2/2)

**Q4.** How concerned are you that you will experience increasingly hot summers and more heat waves where you live in the future?

Base: All respondents

|                            | Total Canada | ATL | QC         | ON  | MB/SK      | AB         | BC  | Male       | Female     | 18-34 | 35-54 | 55+ | Urban | Sub-Urban  | Rural      | Total July 2023 |    |
|----------------------------|--------------|-----|------------|-----|------------|------------|-----|------------|------------|-------|-------|-----|-------|------------|------------|-----------------|----|
| Unweighted n=              | 1,526        | 101 | 417        | 602 | 128        | 127        | 151 | 714        | 686        | 378   | 445   | 703 | 636   | 606        | 274        | 1,517           |    |
| <b>Total Not Concerned</b> | <b>30%</b>   | 34% | <b>24%</b> | 29% | 34%        | <b>44%</b> | 27% | <b>37%</b> | <b>23%</b> | 28%   | 34%   | 29% | 30%   | <b>27%</b> | <b>36%</b> | <b>35%</b>      | -5 |
| Not at all concerned       | <b>8%</b>    | 4%  | <b>5%</b>  | 9%  | 8%         | 10%        | 9%  | <b>10%</b> | <b>5%</b>  | 9%    | 8%    | 7%  | 7%    | 6%         | 11%        | <b>9%</b>       | -1 |
| Not very concerned         | <b>23%</b>   | 30% | 19%        | 21% | 25%        | <b>35%</b> | 19% | <b>27%</b> | <b>18%</b> | 19%   | 26%   | 22% | 23%   | 21%        | 25%        | <b>25%</b>      | -2 |
| <b>Total Concerned</b>     | <b>70%</b>   | 66% | <b>76%</b> | 71% | 66%        | <b>56%</b> | 73% | <b>63%</b> | <b>77%</b> | 72%   | 66%   | 71% | 70%   | <b>73%</b> | <b>64%</b> | <b>65%</b>      | +5 |
| Somewhat concerned         | <b>45%</b>   | 37% | <b>52%</b> | 43% | 51%        | <b>34%</b> | 46% | 43%        | 47%        | 47%   | 44%   | 44% | 42%   | 48%        | 42%        | <b>43%</b>      | +2 |
| Very concerned             | <b>25%</b>   | 29% | 24%        | 28% | <b>16%</b> | 21%        | 27% | <b>20%</b> | <b>30%</b> | 25%   | 22%   | 28% | 27%   | 25%        | 21%        | <b>22%</b>      | +3 |

# Opinion on Climate Change in Canada

**Q5.** Which of the following statements best represents your opinion?

Base: All respondents (n=1,526)

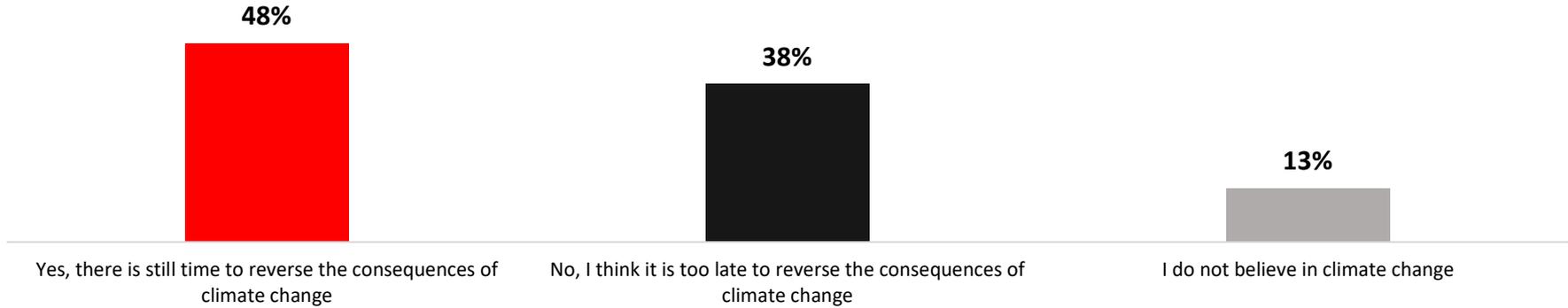


|  | Total Canada | ATL | QC  | ON  | MB/SK | AB  | BC  | Male | Female | 18-34 | 35-54 | 55+ | Urban | Sub-Urban | Rural | Total June 2023 |    |
|--|--------------|-----|-----|-----|-------|-----|-----|------|--------|-------|-------|-----|-------|-----------|-------|-----------------|----|
| Unweighted n=  | 1,526        | 101 | 417 | 602 | 128   | 127 | 151 | 714  | 686    | 378   | 445   | 703 | 636   | 606       | 274   | 1,514           |    |
| The changes in the climate in Canada worry me            | 63%          | 59% | 75% | 63% | 57%   | 47% | 62% | 56%  | 69%    | 65%   | 56%   | 67% | 63%   | 65%       | 57%   | 67%             | -4 |
| The changes in the climate in Canada do not worry me     | 19%          | 25% | 16% | 18% | 19%   | 27% | 17% | 23%  | 15%    | 19%   | 23%   | 16% | 18%   | 20%       | 20%   | 17%             | +2 |
| There aren't really any changes in the climate in Canada | 10%          | 10% | 7%  | 9%  | 12%   | 15% | 12% | 13%  | 7%     | 10%   | 11%   | 9%  | 9%    | 8%        | 15%   | 10%             | -  |
| I don't know / I prefer not to answer                    | 8%           | 6%  | 2%  | 10% | 12%   | 11% | 9%  | 8%   | 9%     | 6%    | 10%   | 8%  | 10%   | 6%        | 8%    | 7%              | +1 |

# Possibility to Reverse Climate Change Consequences

**Q6.** Do you think it's still possible to reverse the consequences of climate change?

Base: All respondents (n=1,526)

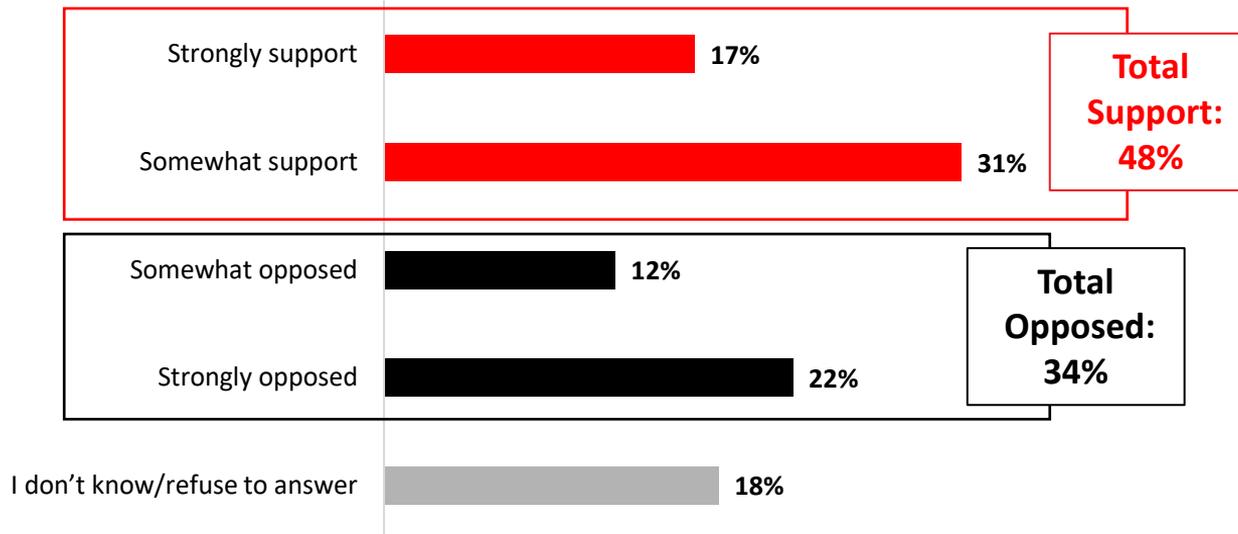


|  | Total Canada | ATL | QC  | ON  | MB/SK | AB  | BC  | Male | Female | 18-34 | 35-54 | 55+ | Urban | Sub-Urban | Rural | Total June 2023 |    |
|--|--------------|-----|-----|-----|-------|-----|-----|------|--------|-------|-------|-----|-------|-----------|-------|-----------------|----|
| Unweighted n=  | 1,526        | 101 | 417 | 602 | 128   | 127 | 151 | 714  | 686    | 378   | 445   | 703 | 636   | 606       | 274   | 1,514           |    |
| Yes, there is still time to reverse the consequences of climate change   | 48%          | 49% | 45% | 52% | 58%   | 40% | 45% | 46%  | 50%    | 54%   | 45%   | 48% | 50%   | 48%       | 45%   | 51%             | -3 |
| No, I think it is too late to reverse the consequences of climate change | 38%          | 36% | 46% | 36% | 25%   | 39% | 40% | 39%  | 38%    | 39%   | 40%   | 37% | 40%   | 39%       | 34%   | 37%             | +1 |
| I do not believe in climate change                                       | 13%          | 15% | 9%  | 12% | 17%   | 20% | 14% | 15%  | 11%    | 8%    | 15%   | 15% | 10%   | 12%       | 22%   | 12%             | +1 |

# Support for Using Carbon Tax Revenue to Climate Adaptation (1/2) <sup>Leger</sup>

**Q7.** Currently, the carbon tax, applied to fossil fuels such as gasoline and natural gas, is rebated back to consumers every 3 months in the form of the Carbon Tax Rebate. Would you support or oppose a policy which instead of rebating the carbon tax back to consumers, the tax revenue is spent exclusively on measures preparing Canada for the effects of climate change—things like better drainage for heavy rains; better forest management to help with wildfires and coastal stabilization in advance of rising sea levels?

Base: All respondents (n=1,526)



# Support for Using Carbon Tax Revenue to Climate Adaptation (2/2)

**Q7.** Currently, the carbon tax, applied to fossil fuels such as gasoline and natural gas, is rebated back to consumers every 3 months in the form of the Carbon Tax Rebate. Would you support or oppose a policy which instead of rebating the carbon tax back to consumers, the tax revenue is spent exclusively on measures preparing Canada for the effects of climate change—things like better drainage for heavy rains; better forest management to help with wildfires and coastal stabilization in advance of rising sea levels?

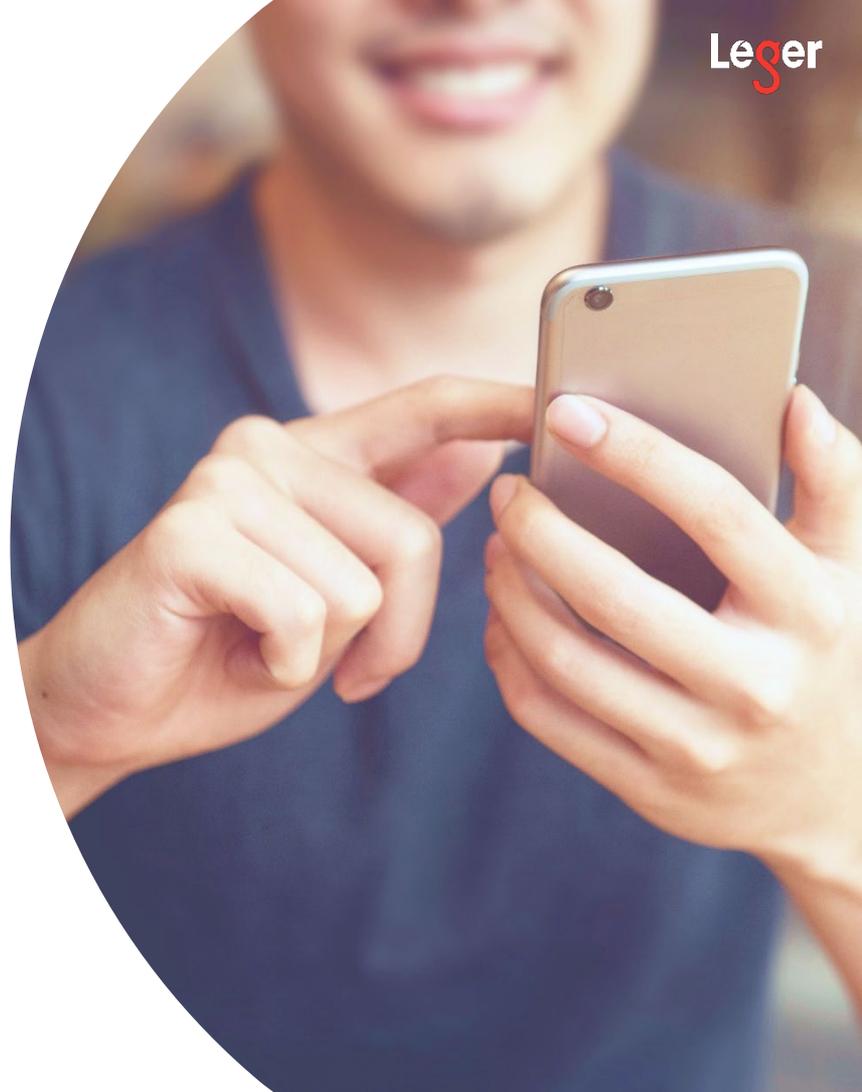
Base: All respondents

|                               | Total Canada | ATL        | QC         | ON         | MB/SK     | AB         | BC  | Male       | Female     | 18-34      | 35-54      | 55+        | Urban      | Sub-Urban  | Rural      |
|-------------------------------|--------------|------------|------------|------------|-----------|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|
| Unweighted n=                 | 1,526        | 101        | 417        | 602        | 128       | 127        | 151 | 714        | 686        | 378        | 445        | 703        | 636        | 606        | 274        |
| <b>TOTAL IN FAVOUR</b>        | <b>48%</b>   | 39%        | <b>60%</b> | <b>41%</b> | 38%       | 47%        | 55% | 49%        | 47%        | <b>53%</b> | <b>43%</b> | 48%        | 51%        | 48%        | <b>39%</b> |
| Strongly in favour            | <b>17%</b>   | 17%        | <b>23%</b> | <b>13%</b> | <b>8%</b> | 19%        | 19% | 18%        | 15%        | 18%        | <b>13%</b> | 18%        | 19%        | 15%        | 13%        |
| Somewhat in favour            | <b>31%</b>   | 23%        | <b>38%</b> | 28%        | 29%       | 28%        | 36% | 31%        | 31%        | 34%        | 30%        | 29%        | 32%        | 33%        | <b>25%</b> |
| <b>TOTAL OPPOSED</b>          | <b>34%</b>   | <b>49%</b> | <b>17%</b> | <b>39%</b> | 39%       | <b>44%</b> | 32% | <b>39%</b> | <b>30%</b> | <b>28%</b> | 37%        | 37%        | <b>31%</b> | 34%        | <b>44%</b> |
| Somewhat opposed              | <b>12%</b>   | 18%        | <b>8%</b>  | <b>16%</b> | 11%       | 10%        | 10% | 13%        | 12%        | 12%        | 15%        | 11%        | 11%        | <b>15%</b> | 11%        |
| Strongly opposed              | <b>22%</b>   | 31%        | <b>10%</b> | 23%        | 27%       | <b>34%</b> | 22% | <b>26%</b> | <b>18%</b> | <b>17%</b> | 22%        | <b>25%</b> | 20%        | 19%        | <b>33%</b> |
| I don't know/refuse to answer | <b>18%</b>   | 12%        | <b>22%</b> | 20%        | 24%       | <b>9%</b>  | 13% | <b>12%</b> | <b>23%</b> | 19%        | 20%        | 16%        | 18%        | 18%        | 18%        |

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REPORT

# Detailed Methodology



# Weighted and Unweighted Sample (1/2)

The table below presents the Canadian geographic distribution of respondents before weighting.

|                       | Unweighted   | Weighted     |
|-----------------------|--------------|--------------|
| <b>Province</b>       | <b>1,526</b> | <b>1,526</b> |
| British Columbia      | 151          | 213          |
| Alberta               | 127          | 170          |
| Manitoba/Saskatchewan | 128          | 97           |
| Ontario               | 602          | 591          |
| Quebec                | 417          | 353          |
| Atlantic              | 100          | 103          |

# Weighted and Unweighted Sample (2/2)

The following tables present the demographic distribution of respondents according to gender, age and language (mother tongue) for Canada.

The table below presents the Canadian geographic distribution of respondents before weighting.

|                                 | Unweighted   | Weighted     |
|---------------------------------|--------------|--------------|
| <b>Gender</b>                   | <b>1,526</b> | <b>1,526</b> |
| Male                            | 776          | 749          |
| Female                          | 750          | 777          |
| <b>Age</b>                      | <b>1,526</b> | <b>1,526</b> |
| 18 to 34                        | 378          | 406          |
| 35 to 54                        | 445          | 491          |
| 55+                             | 703          | 628          |
| <b>Language (Mother tongue)</b> | <b>1,526</b> | <b>1,526</b> |
| English                         | 982          | 1,081        |
| French                          | 397          | 301          |
| Other                           | 144          | 140          |

# Our Services

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- **Leger**  
Marketing research and polling
- **Customer Experience (CX)**  
Strategic and operational customer experience consulting services
- **Leger Analytics (LEA)**  
Data modelling and analysis
- **Leger Opinion (LEO)**  
Panel management
- **Leger Communities**  
Online community management
- **Leger Digital**  
Digital strategy and user experience
- **International Research**  
Worldwide Independent Network (WIN)

**600**

**EMPLOYEES**



**185**

**CONSULTANTS**



**8**

**OFFICES**

MONTREAL | QUEBEC CITY | TORONTO | WINNIPEG  
EDMONTON | CALGARY | VANCOUVER | NEW YORK

# Our Commitments to Quality

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