MARCH 2023

New Zealanders' Perception of Climate Change – Information Audit

MINISTRY FOR THE ENVIRONMENT

TRA

Agenda

1 Project Objectives

2 The Context of New Zealanders' Lives in 2023

3 Household Perspectives

4 Business Perspectives

5 Local Government Perspectives

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Project Objectives

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The large scale weather events of early 2023 have given a different perspective to climate change for a large number of New Zealanders.

There is a need now to guide people towards a new way of thinking about climate to assist them in both mitigation and adaptation.

These recent events have heightened attention, providing an opportunity to address user needs more effectively and create a clear set of principles, language, and tone that will assist people to make sense of climate change, and what they need to do.

MfE needs to lead this work by adopting a customer-centric or user point of view. While this may require new research, the current opportunity is to synthesize existing research, mainly from New Zealand but some international research may also be relevant. This will surface existing thinking and allow MfE to identify any gaps to establish a research plan.

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Project Methodology

This project took a comprehensive approach to sourcing publicly available data on New Zealanders' perceptions of climate change.

The collation of data focused on sources that were freely available on the internet and is largely survey based. Academic articles that analysed systems responses or readiness were not in scope.

What is shown here is how the information is presented on the internet. As you'll see, some is very easily interpreted, some not so much. This reflects the reality of the information that is available to organisations trying to make sense of this space, it's messy, rather messy.

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Data Sources – Households

Source	Methodology	Timing
IPSOS	Survey of 1,003 New Zealanders aged over 18	Feb 2022
Landcare Research	Survey of 2,091 New Zealanders aged over 18	Mar-Apr 2022
Stats NZ	General Social Survey of 8,500 New Zealanders aged 15 and over	April 2018 and March 2019
MfE	Survey of 1,001 New Zealanders aged 18 and over	Sept 2018
IAG	Survey of 1,000 New Zealanders aged 18 and over	2018 - 2022
EECA	Survey of 700 New Zealanders aged 18 and over every quarter	2018 - onwards
Radar	TRA Radar Media and Social Media collation programme	2019 - onwards
Quality of Life Survey	Survey of 7,518 New Zealanders aged 18 and over	2003 - onwards
Auckland Council Climate Personas	Unpublished	2022
Auckland Council Sustainable Healthy Food Choices	Survey of 1,935 Aucklanders aged 18 and over	2021
Financial Services Council	Survey of 2,030 New Zealanders aged 18 and over	2023
Sustainable Business Council	Survey of 1,300 New Zealanders aged 18 and over	2023

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Data Sources – Businesses

Source	Methodology	Timing
Stats NZ	Business Operations Survey of businesses with 6 or more FTE	2021
EECA	Survey of 500 New Zealand business decision makers twice annually	2018 - onwards
He Waka Eke Noa Primary Sector Climate Action Partnership	Literature review and expert interviews within the farming sector	2021
MPI	Survey of People working in the rural sector. Sample size of 707 in 2019	2009-2019

In addition, there were numerous publications reviewed from legal, tax, and consulting firms informing businesses, at a high-level, of their responsibilities and potential paths to action.

The specific information provided by government bodies was viewed to get a sense of coverage.

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As a note:

The vast majority of information reviewed focused on Reduce from the Reduce/Respond/Recover/Readiness framework. This is a recurring theme across the world.

The other R's have not been mentioned much in mass media until very recently and has generally not been a topic measured in public perception surveys.

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The Context of New Zealanders' Lives in 2023

The context in which New Zealanders are living has a significant influence on how they respond to climate change:

There are aspects that have the potential to positively impact our response to climate change:

- Our strong connection to nature
- Our belief in social equivalence

However, there are other aspects that will limit our response to climate change:

- Cost of living crisis
- Lack of socially visible actions
- Disconnect between the level that motivations and barriers act on

We have lived together as a nation through significant local and global change. Within this period, TRA has been monitoring the cultural codes that make us who we are – Kiwi Codes

2017
The cultural context when we started this work

2018

2019
Our first dip into quantifying the Kiwi cultural codes

2020
Our second dip into quantifying the Kiwi cultural codes

FEBRUARY 2020 PRE-COVID-19 BASELINE

2021
Our third dip into quantifying the Kiwi cultural codes

SEPTEMBER 2021

2022
Our fourth dip into quantifying the Kiwi cultural codes

SEPTEMBER 2022

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WHAT ARE KIWI CODES?

Every nation has an enduring sense of who they are

Cultural codes are deeply rooted in out history. But they are not static. Instead, they evolve as our wider cultural landscape changes.

Cultural codes differ from individual values. Instead, they reflect the shared ways of living together as a nation.

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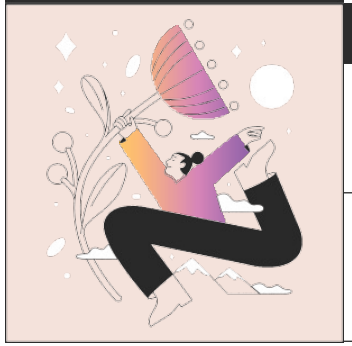
There are two Kiwi Codes that have a strong influence on perceptions and actions towards climate change:

- Connection to Nature
  We need to give back to nature

- Belief in Social Equivalence
  We need to stand up for what matters

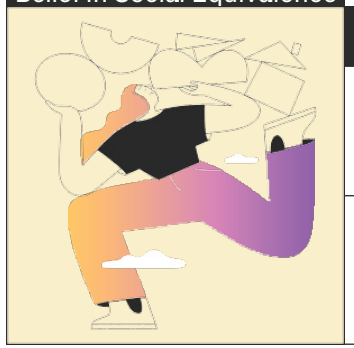
Connection to Nature



FROM	TO	2022
Conquering nature	Nature as a refuge	Kaitiakitanga

From **take from nature**
To **give back**

Belief in Social Equivalence



FROM	TO	2022
Jack's as good as his master	Poverty as a problem to solve	Social equity beyond dollars

From **levelling up**
To **widening the field of equality**

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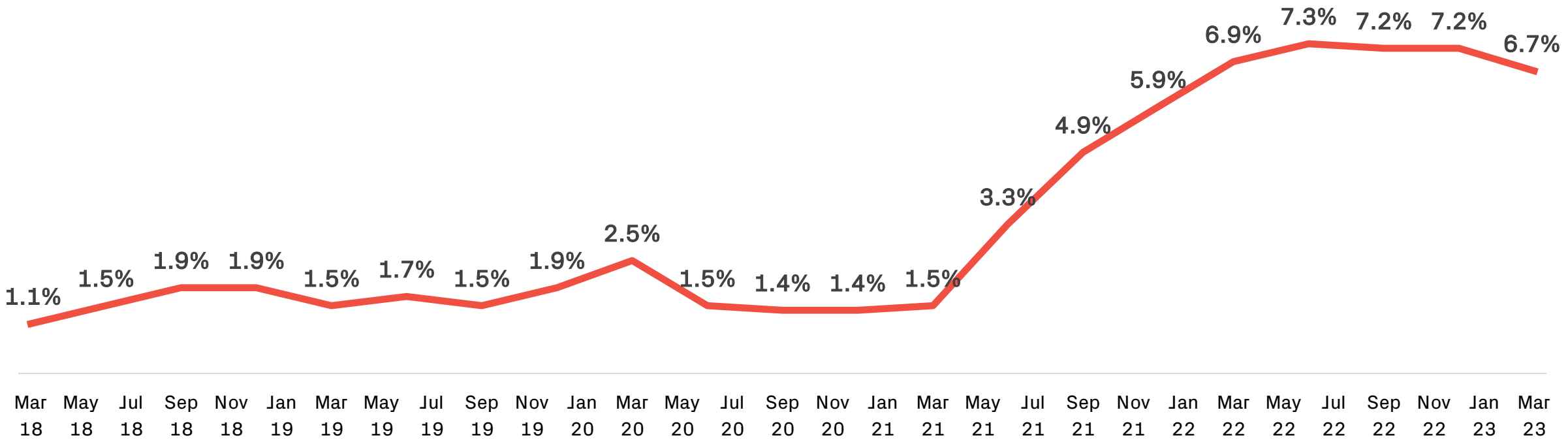
New Zealanders are facing a very significant cost of living crisis that is only now reaching its peak

To put this is to context, it's now costing households 13% more to buy the same goods and services than they did in March 2021.

CONSUMER CPI – ANNUAL INCREASE BY QUARTER



Source: Stats NZ Consumers Price Index

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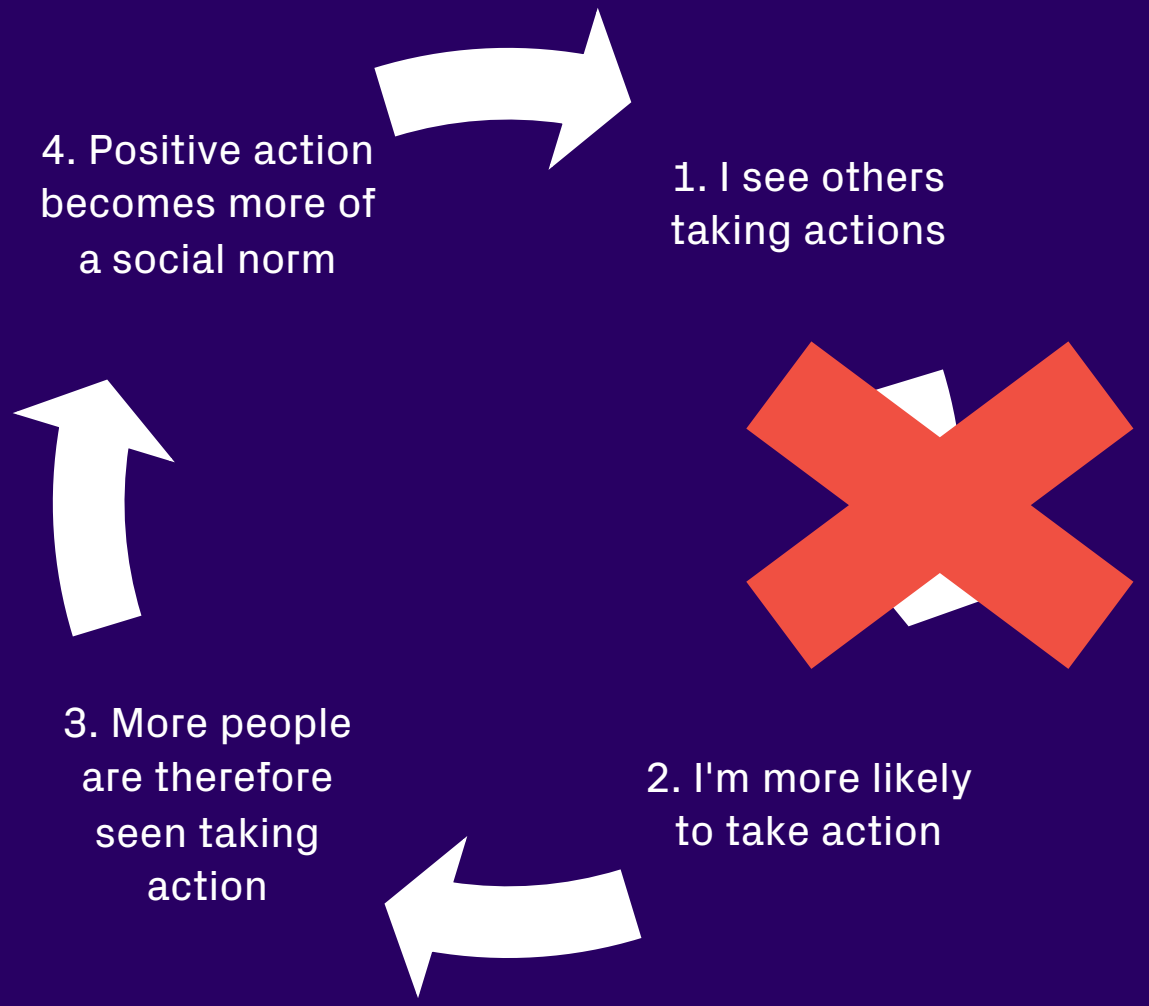
People respond to social norms. What they see others doing they're more likely to do themselves.

The most impactful climate change actions such as changing transport use and diet, are often, not publicly visible.



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There is a disconnect between motivations that people have towards climate change and the barriers they encounter

Higher order, more collective

Lower order, more individual

MOTIVATIONS

– The main motivations people have towards climate change are higher-order and long-term, e.g. I want to create a better future for the next generations

BARRIERS

– The main barriers people have to acting are personal and immediate, e.g. I can't afford it

This creates a two-fold tension.

1. It's hard to see how individual actions can ladder up to save the world.

2. People will always meet their personal needs before meeting the broader group's needs.

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Behavioural science shows us what can help and what can hinder when trying to communicate about climate change

WHAT HELPS ACTION	WHAT HINDERS ACTION
– Social norming – Quick wins – Small actions – Easy actions – Strong leadership – Both stick and carrot	– Relying on people to motivate themselves – Talking above people – Talking about the problem as a big problem – Scare tactics

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Household Perspectives

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Knowledge

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What households know about climate change is well covered in existing research

All of the data sources converge – there are few points of difference in what people know between studies. Because of this we have usually shown one source on each, even though the knowledge may be duplicated elsewhere.

The following areas are well covered:

- Perception that climate change is real
- Perception that climate change is human influenced
- Perception that climate change is important
- Where climate change falls within life priorities
- Noticing of changes in the weather
- Knowledge of what actions contribute to climate change
- Knowledge of what actions can reduce someone's impact on the environment
- Where people receive information on climate change

SOURCE: IPSOS global 2022 survey

New Zealanders are significantly more concerned about the impacts of climate change than the rest of world

Q. How concerned are you, if at all, about the impacts of climate change that are already being seen in your country / other countries around the world?

% Concerned

	Global average	New Zealand	Gender: Males	Gender: Females	Age: 16–34 years	Age: 35–49 years	Age: 50–64 years	Age: 65+ years	Education: <Level 3	Education: Level 4–7	Education: Level 8–10
Your own country	68%	76%	71%	81%	74%	80%	74%	77%	72%	72%	79%
Other countries	70%	81%	78%	84%	81%	82%	78%	81%	76%	85%	81%

Green / red indicates significantly higher / lower than global average figures

Green / red indicates significantly higher / lower than NZ total figures

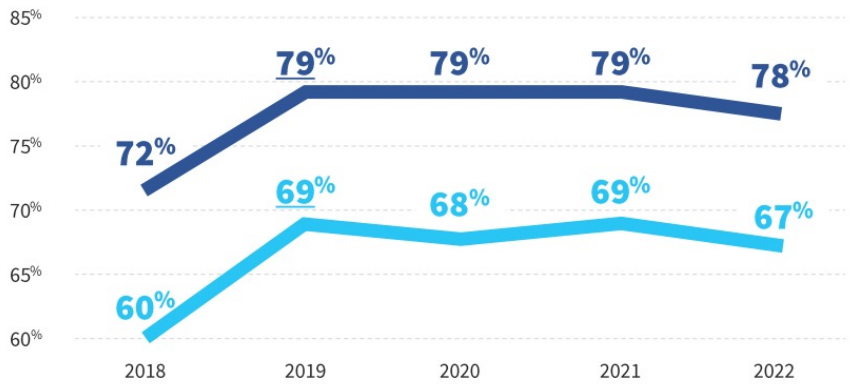
QED1: *How concerned are you, if at all, about the impacts of climate change that are already being seen.*

Base: *New Zealand (n=1,003), Global (n=23,577 online adults across 31 countries, 18 Feb–4 Mar 2022).* ***NB:*** *Surveyed adults aged 16–74 in 30 countries, adults aged 16–99 in Norway.*

SOURCE: IAG/IPSOS 2022 survery

Continued importance

Climate change is an important issue for most New Zealanders, but the number of people who tell us it is important has barely changed despite their growing concern and the mounting evidence of its impacts.



Underlined percentages indicate a statistically significant change on the previous year

Agree that climate change is an important issue to me personally

Agree that I have become more concerned about climate change over the past few years

Page 3

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In terms of environmental issues facing New Zealand, climate change has continued to rise and sits first

Table 6.1 Most important environmental issues facing New Zealand according to survey respondents, 2010–2022.

	2010	2013	2016	2019	2022
Climate change, GHG, carbon	14.2	7.9	10.5	18.6	20.5
Freshwater issues	31.8	27.7	32.6	27.6	18.4
Waste, sewage, sanitation	9.4	11.4	11.8	12.4	15.5
Pollution	21.1	13.8	13.4	11.7	10.5
Urbanisation, development, land use	7.6	7.4	8.5	3.9	8.0
Pressures from over population	13.3	9.2	9.5	8.1	7.4
Protection/conservation of the environment	13.3	13.2	10.4	8.4	7.2
Emissions, smog (from vehicles)	4.7	5.2	5.3	2.4	6.8
Marine and coastal environments	4.5	7.0	7.2	5.3	6.4
Environmental regulation and politics	8.7	7.2	5.9	3.6	6.0
Agriculture/farming	8.5	17.1	19.3	5.3	5.8
Environmental pressures from acts of war/conflict	4.4	3.6	4.0	6.7	5.4
Sustainable management of resources	10.1	8.3	6.6	4.1	4.8
Forestry, logging, deforestation	4.4	4.3	3.3	3.8	4.8
Air quality	9.2	10.2	9.7	4.8	3.7
Energy, transportation, fuel	4.4	10.1	6.1	3.9	2.9
Social issues (poverty, famine, inequality)	3.8	3.1	3.3	2.9	2.8
Pests, weeds, disease	2.6	2.8	3.2	4.6	2.4
Poison, pesticides, toxins	2.8	3.4	2.6	4.0	2.3
Mining, large industry	5.0	8.5	4.1	1.6	2.3
Tourism	1.1	0.6	0.9	1.1	0.8
Extinction, habitat loss and degradation	0.6	0.2	0.6	0.7	0.5
Other environmental topics	10.5	8.0	7.8	6.5	5.0
Other non-environmental topics	3.7	2.6	4.1	5.9	6.2
Unsure	2.1	1.3	1.8	2.6	6.5
Number of respondents	1,442	1,698	1,801	1,580	1,870

SOURCE: Landcare Research 2022 survey

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New Zealanders also think that climate change is the greatest environmental issue facing the world

Table 6.2 Most important environmental issues facing the world according to respondents, 2010–2022.

	2010	2013	2016	2019	2022
Climate change, GHG, carbon	30.7	27.7	36.9	38.7	41.9
Freshwater issues	13.1	16.6	19.9	16.0	20.0
Waste, sewage, sanitation	18.9	18.4	13.6	15.3	12.0
Pollution	4.8	6.1	6.9	10.3	9.1
Urbanisation, development, land use	15.7	16.6	15.5	12.3	8.8
Pressures from over population	4.5	5.7	5.5	1.9	5.7
Protection/conservation of the environment	6.9	10.3	7.3	5.1	5.5
Emissions, smog (from vehicles)	21.7	14.9	14.6	9.8	4.0
Marine and coastal environments	6.2	8.0	5.4	4.3	3.4
Environmental regulation and politics	11.0	9.9	7.6	5.9	3.3
Agriculture/farming	2.3	3.5	4.1	3.4	3.2
Environmental pressures from acts of war/conflict	3.8	3.8	2.7	2.6	2.8
Sustainable management of resources	4.5	7.2	4.8	3.7	2.7
Forestry, logging, deforestation	3.8	3.9	3.1	2.0	2.7
Air quality	5.1	6.0	5.0	4.4	2.4
Energy, transportation, fuel	5.7	4.5	4.8	2.2	2.1
Social issues (poverty, famine, inequality)	6.1	5.6	4.5	1.9	2.1
Pests, weeds, disease	1.6	1.9	2.2	1.1	1.1
Poison, pesticides, toxins	1.5	1.4	0.9	1.1	0.7
Mining, large industry	0.6	0.3	0.1	0.2	0.3
Tourism	0.1	0.4	0.2	0.4	0.1
Extinction, habitat loss and degradation	0.0	0.0	0.0	0.1	0.1
Other environmental topics	5.3	6.5	4.6	3.2	2.6
Other non-environmental topics	2.6	2.7	2.3	6.0	8.0
Unsure	1.7	1.7	2.2	2.8	3.6
Number of respondents	1,430	1,678	1,797	1,558	1,854

SOURCE: Landcare Research 2022 survey

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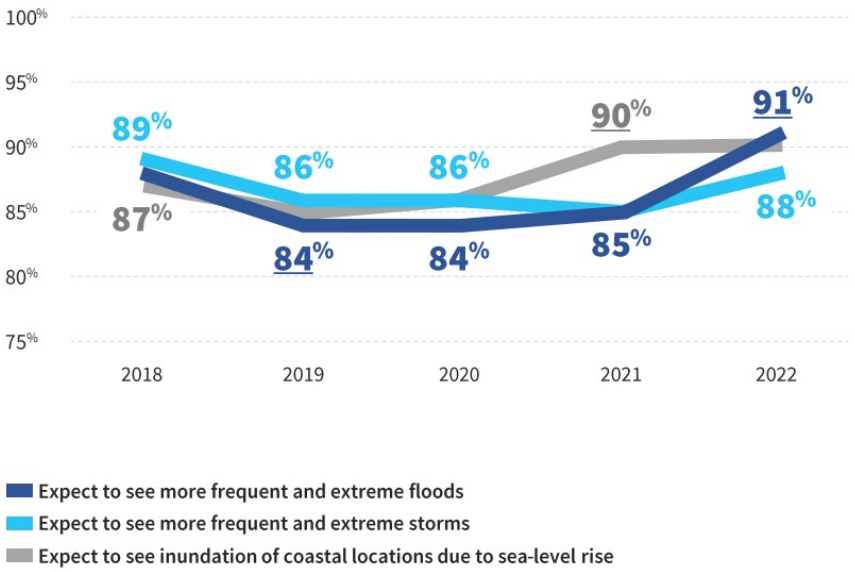
SOURCE: IAG/IPSOS 2022 survery

Expected impacts

New Zealanders understand that our changing climate will lead to sea-level rise and to more frequent and extreme events like floods and storms, and it is reinforced each time one of these disasters occurs.



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A very large proportion of New Zealanders are seeing changes in weather patterns

SOURCE: Stats NZ General Social Survey 2018-2019

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SOURCE: EECA/TRA 2022 survey

There's a disconnect between where people are currently getting their information versus who they'd like to hear from

Climate change information – currently hear from versus trust

	Hear from	Trust	Difference
The media [e.g. TV/Radio/Newspapers, Podcasts etc]	63%	40%	-22%
Social media [e.g. Facebook, Instagram, etc]	33%	14%	-19%
Online articles/blogs	28%	19%	-9%
Google	27%	19%	-8%
Government agencies	24%	30%	5%
Environmental leaders	23%	41%	17%
Political leaders	22%	13%	-9%
Family	20%	14%	-6%
Friends	18%	12%	-7%
Work colleagues	9%	6%	-2%
Businesses or brands	8%	7%	-1%
Someone/somewhere else [please specify]	3%	3%	
None of the above	8%	15%	

Hearing from these sources more than they want to.

Hearing from these sources less than they want to.

Where do you currently get information about climate change from?
And which sources would you/do you trust to get climate change information from?
Base: n=774

11

Although the majority of New Zealanders understand the importance of climate change they are often misguided as to what actions are most impactful

- Belief in New Zealand that climate change is real is high and stable
- There's a strong, and stable, understanding that climate change is important
- New Zealanders recognise that climate change will impact their lives, particularly through the weather
- There is a growing recognition that we will be impacted by more severe weather and sea-level rises
- The actions that have the least impact, e.g. recycling, are those which are seen by the public as having the greatest impact
- New Zealanders are getting information about climate change from media, and wish to hear more from environmental leaders

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Behaviours

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Behaviours are also well covered, but at a high level

Similar to Knowledge, there's a lot of duplication of information across the different sources, with all measuring approximately the same behaviours.

The information on behaviours focuses on:

- The level of commitment towards actions that reduce the impact on climate change
- What actions people are taking to reduce their impact on climate change
- Dietary patterns

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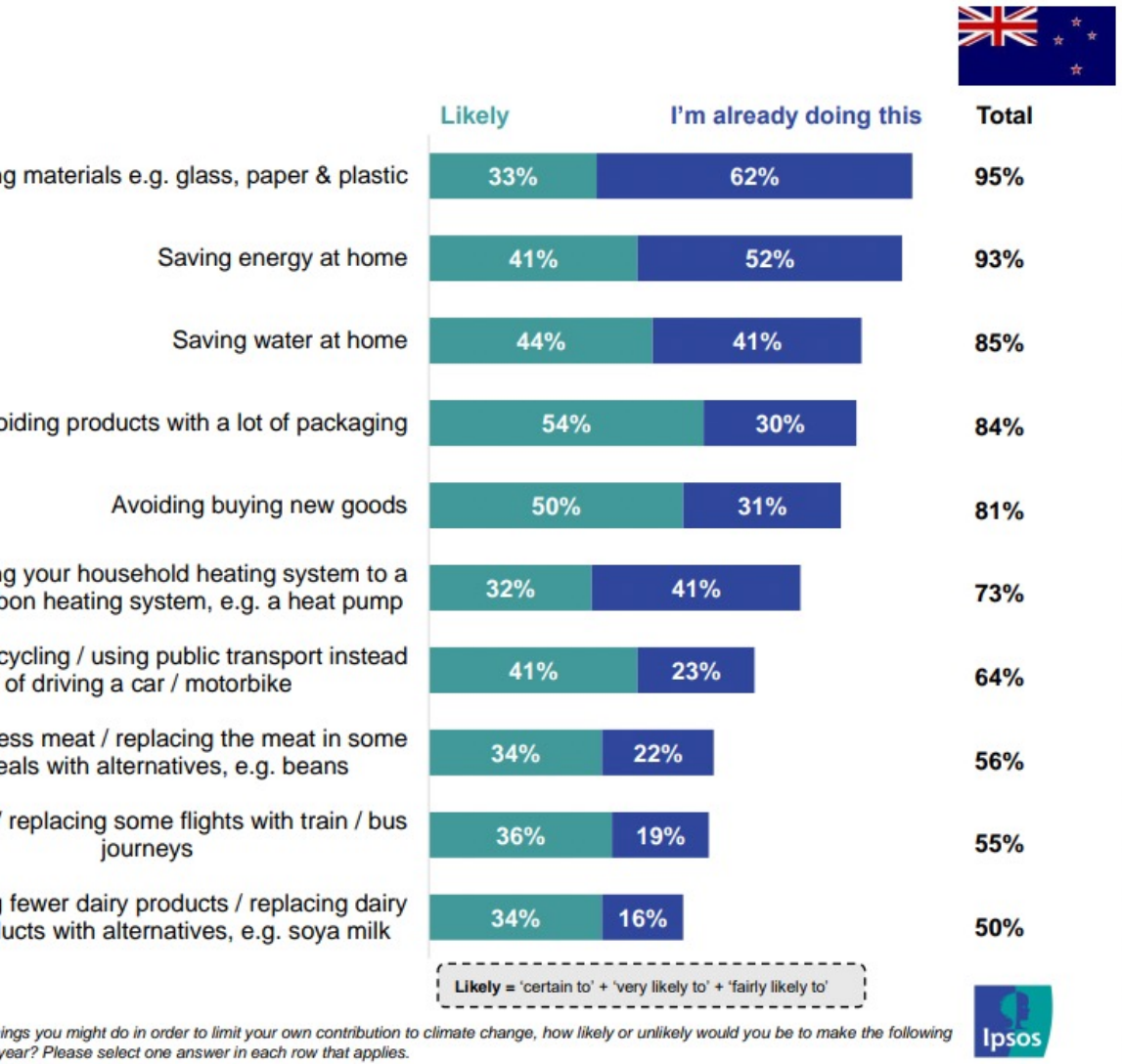
SOURCE: IPSOS global 2022 survey

Recycling & saving energy at home are top of mind for the vast majority of New Zealanders, with over 90% indicating that they are either likely to do or are already doing this

Q. Thinking about things you might do in order to limit your own contribution to climate change, how likely or unlikely would you be to make the following changes within the next year?



QTH1: *Thinking about things you might do in order to limit your own contribution to climate change, how likely or unlikely would you be to make the following changes within the next year? Please select one answer in each row that applies.*

Base: *New Zealand (n=1,003)*

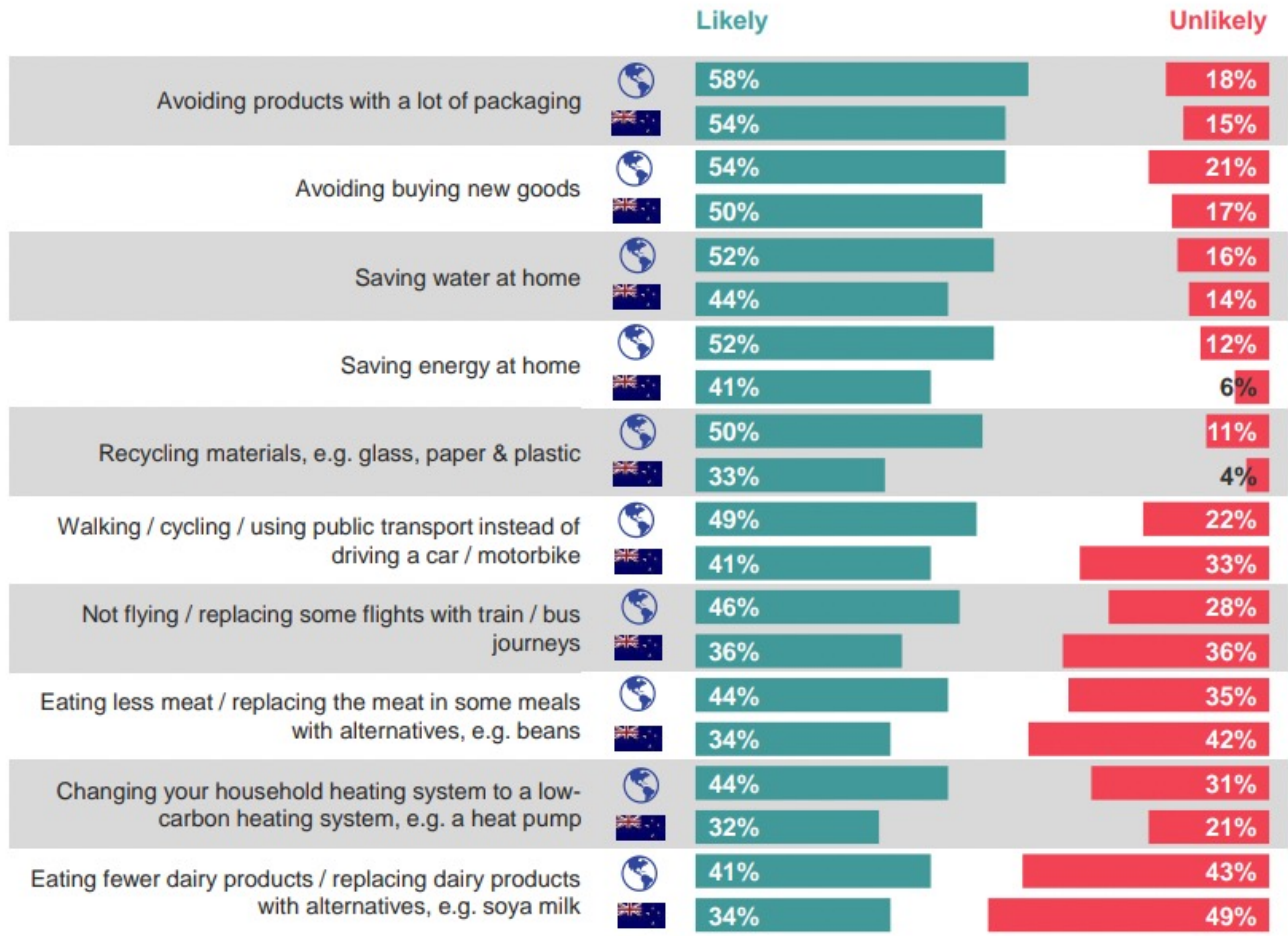
SOURCE: IPSOS global 2022 survey

Compared to those around the world, New Zealanders remain less willing to *consume less meat & dairy* or *switch to more sustainable transport options*

Q. Thinking about things you might do in order to limit your own contribution to climate change, how likely or unlikely would you be to make the following changes within the next year?

Global average

New Zealand



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Base: *New Zealand (n=1,003), Global (n=23,577 online adults across 31 countries, 18 Feb–4 Mar 2022).* ***NB:*** *Surveyed adults aged 16–74 in 30 countries, adults aged 16–99 in Norway.*

Ipsos

25

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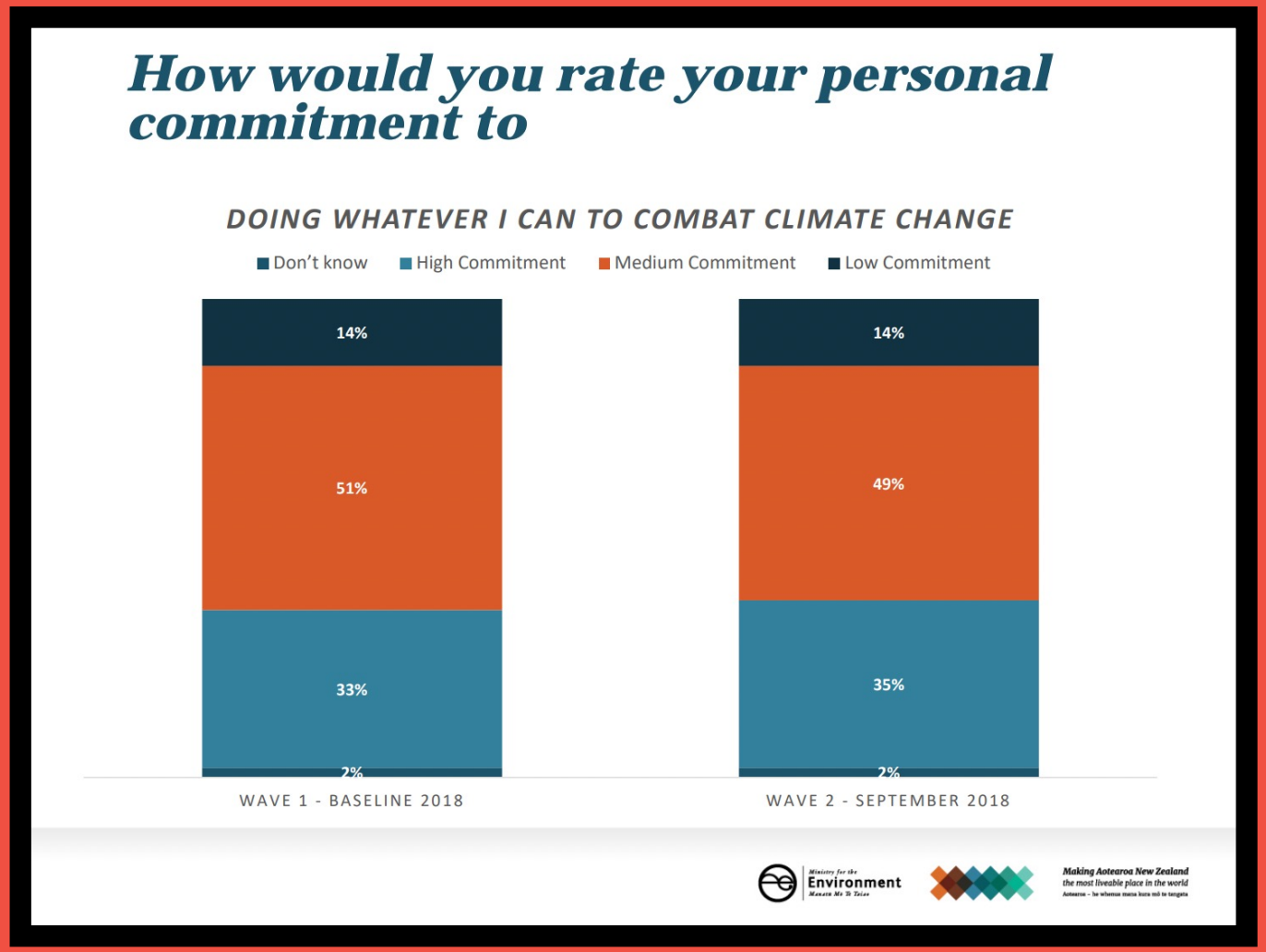
Reflecting a socially acceptable response, most people say they have some commitment to the combatting of climate change



SOURCE: MfE 2018 survey

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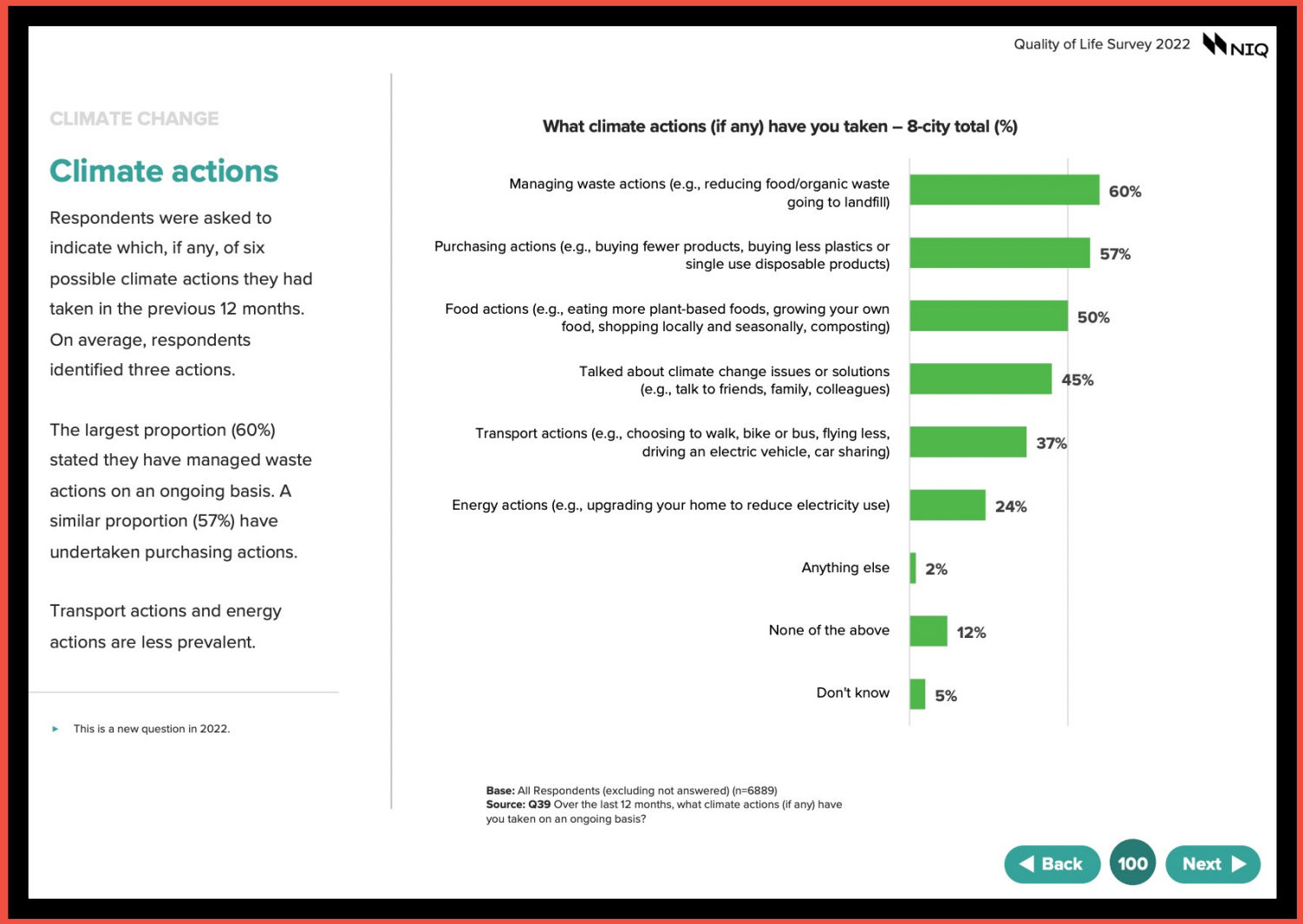
People say they are most actively managing waste, being conscious buyers and taking broad food actions



SOURCE: Quality of Life 2022 survey

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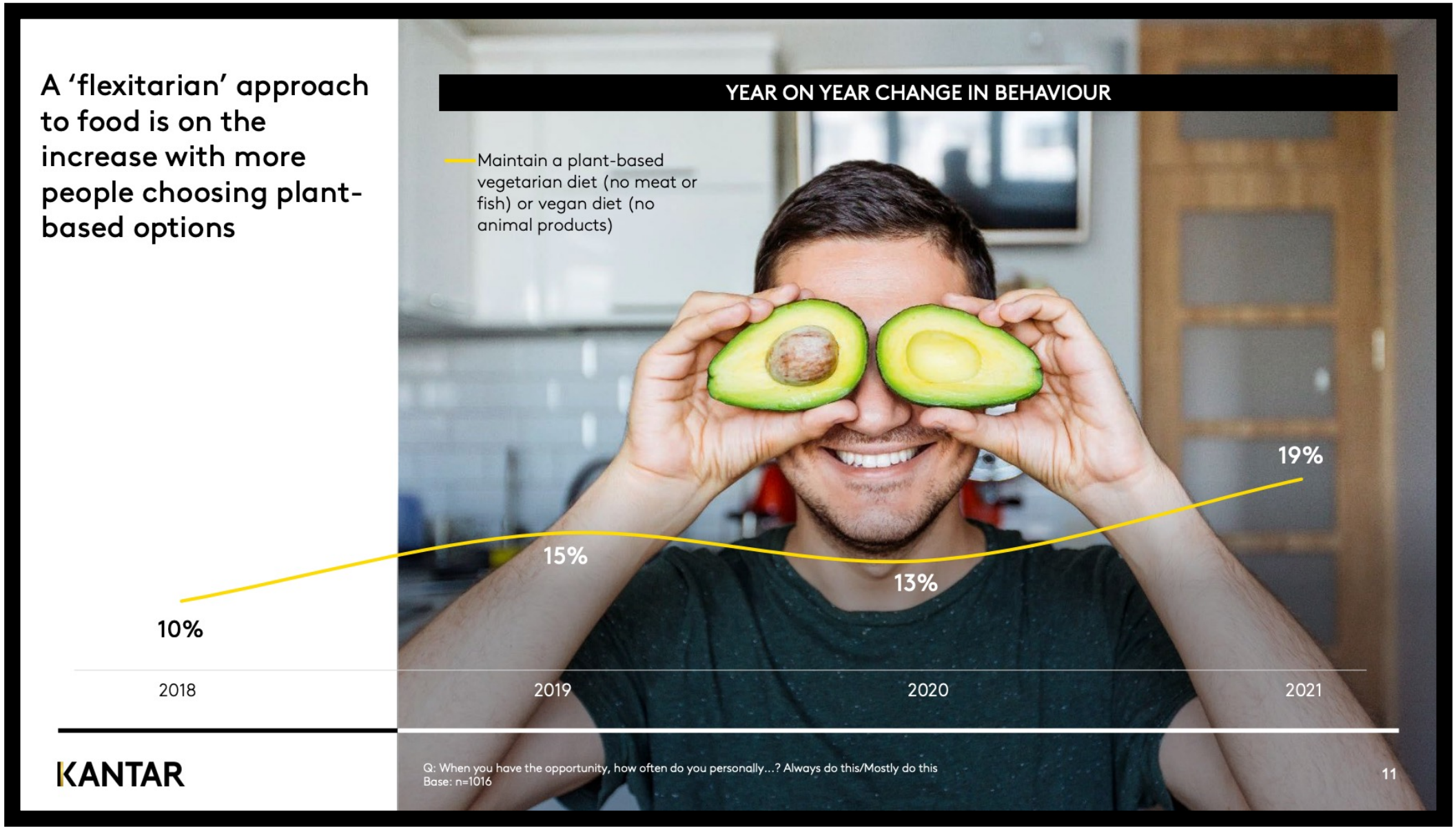
SOURCE: Kantar Better Futures 2021 survey



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New Zealanders are confused as to what will reduce their climate impact and are therefore not acting.

- There is a misalignment between what the most impactful actions are and what New Zealanders think are the most impactful actions
- Recycling and waste reduction are the actions that people most take to reduce their impact on the environment
- They do this because they think these have the greatest impact
- Changing transport habits and diets are the most impactful aspects that New Zealanders are reluctant to do

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Motivations

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There is limited information on household's motivations to acting on climate change

What Is Known Within Motivations

There is limited information within motivations:

- What personal, cultural and social factors motivate people to act on climate change
- How the positioning of plant-based diets motivates people to act

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SOURCE: EECA/TRA 2022 survey

The biggest motivations for taking climate action are at a cultural level

While these are useful motivations, they can be seen as 'everyone's responsibility and no-one's responsibility'

Climate action motivations

Potentially driving this is the idea that climate change is in its early stages of mainstream cultural psyche – it makes sense to see the cultural motivations strong, as that's where messaging and activity (including our own) to date has has played.

Think about specific actions that you personally take against climate change. Which of the following motivates you to do?

Base: n=774

14

SOURCE: Auckland Council Low Carbon 2021 survey

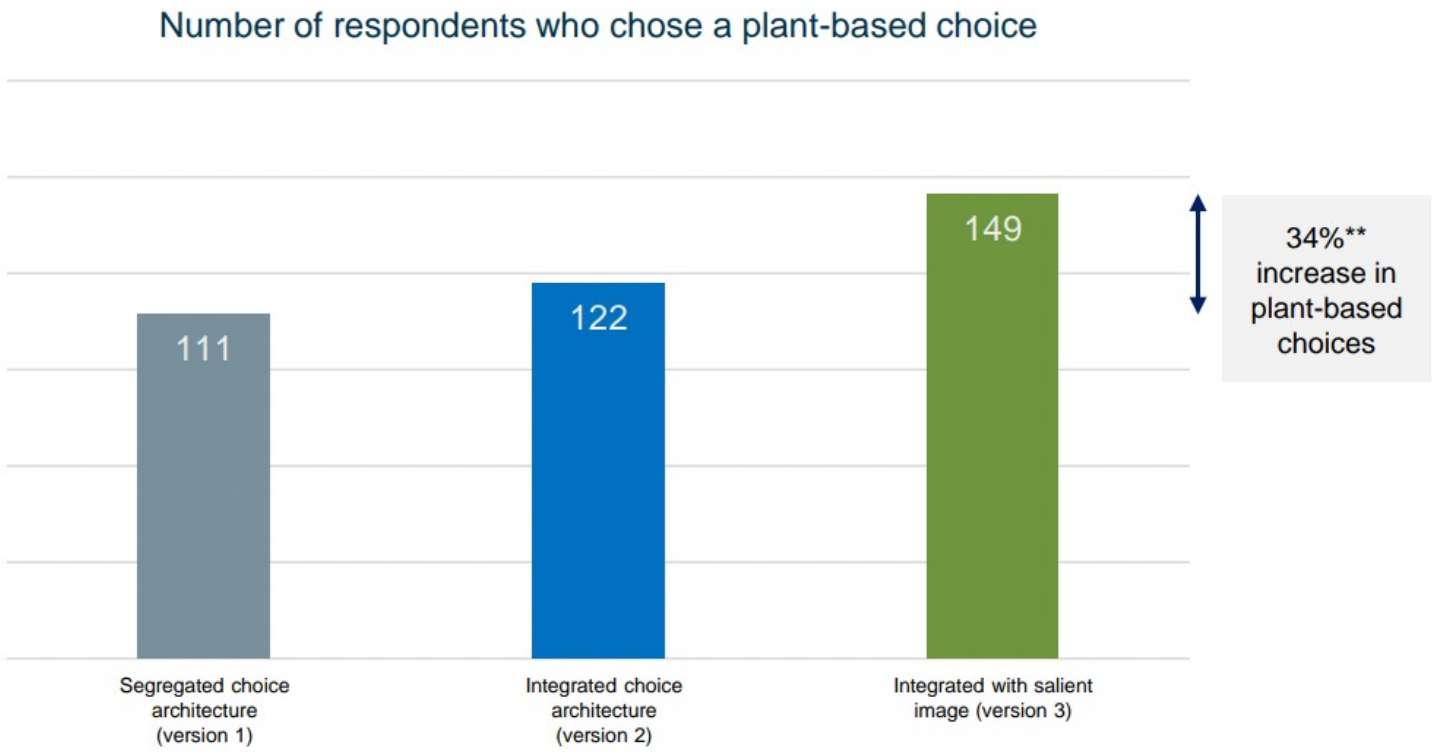
Result 1: Integrating plant-based options led to a 34% increase in plant-based choices

Behavioural Insight 1

Integrating plant-based food choices and animal-based products within a purchasing journey will lead to an increase in plant-based choices.

Result

There was a 34%** increase in respondents choosing a plant-based option when plant-based and animal-based products were integrated, and a salient image of plant-based food was used. An effect to a statistically significant level.



**statistically significant change (.95 confidence). See page 21 for more information on what statistical significance tell us.

N total respondents choosing plant-choices = 382
N total sample of respondents including meat-choices = 1,865
This excludes all survey respondents who classified themselves already as vegan, vegetarian or pescatarian.

Auckland Council

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SOURCE: Auckland Council Low Carbon 2021 survey

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Result 2: Individuals driven to consider plant-based food due to tastiness factors over environmental benefits

Behavioural Insight 2

Real or perceived tastiness will drive food choice behaviour more than reported environmental benefits.

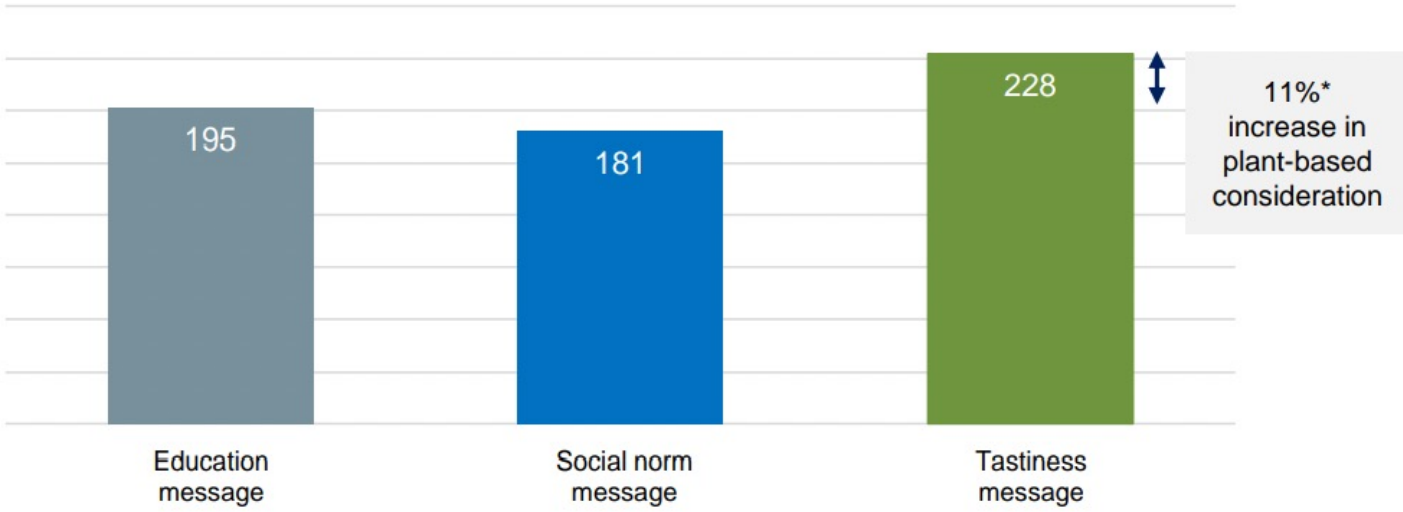
Result

Different message framing has led to different plant-based preferences. Comparing a traditional education-based message focused on the environmental benefits to a message focused on tastiness — we see a 11%* increase in plant-based consideration.

*statistically significant change (.90 confidence)

Auckland Council

Number of respondents who stated they'd consider increasing their plant-based meal choices — categorised by which marketing message they were shown



N total respondents choosing plant-choices = 604
N total sample of respondents including meat-choices = 1,930

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There isn't a single motivation that galvanises the New Zealand population

- New Zealanders' motivations to act on climate change are predominantly driven by a desire for multiple small acts from everyone to make an impact
- This can provide an excuse for people to argue that others aren't taking actions so why should they
- How climate-change friendly alternatives are positioned can have a large impact on acceptance and uptake

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Barriers

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Barriers are not well documented

What Is Known Within Barriers

There is limited information within barriers:

- What the main barriers to acting to reduce climate change are

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SOURCE: EECA/TRA 2022 survey

Nearly a third of people say nothing stops them from taking climate action, but just as many say taking action is expensive

Climate action barriers

Worth noting, is that many people believe that things such as recycling alone is 'climate action'. So some of those those who say nothing gets in their way will likely include this group.

And what would you say gets in the way of you taking more climate actions?
Base: n=774

16

Cost will aways be a barrier to taking climate-friendly options, the more that can be done to reduce this the more action there will be.

There are two factors that contribute to cost being the main barrier for acting on climate change:

- The current economic climate and cost of living increases
- Climate-friendly alternatives are often more expensive than mainstream products

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Needs

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None of the New Zealand data sources analysed had information on the needs of households

What Is Known Within Needs

Nothing

Sentiment

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Only one data source had any information on the level of sentiment towards climate change

What Is Known Within Sentiment

There is detailed longitudinal information within sentiment:

- Daily mentions of climate change through media and social media channels going back three years
- Daily sentiment of articles and comments on climate change going back three years

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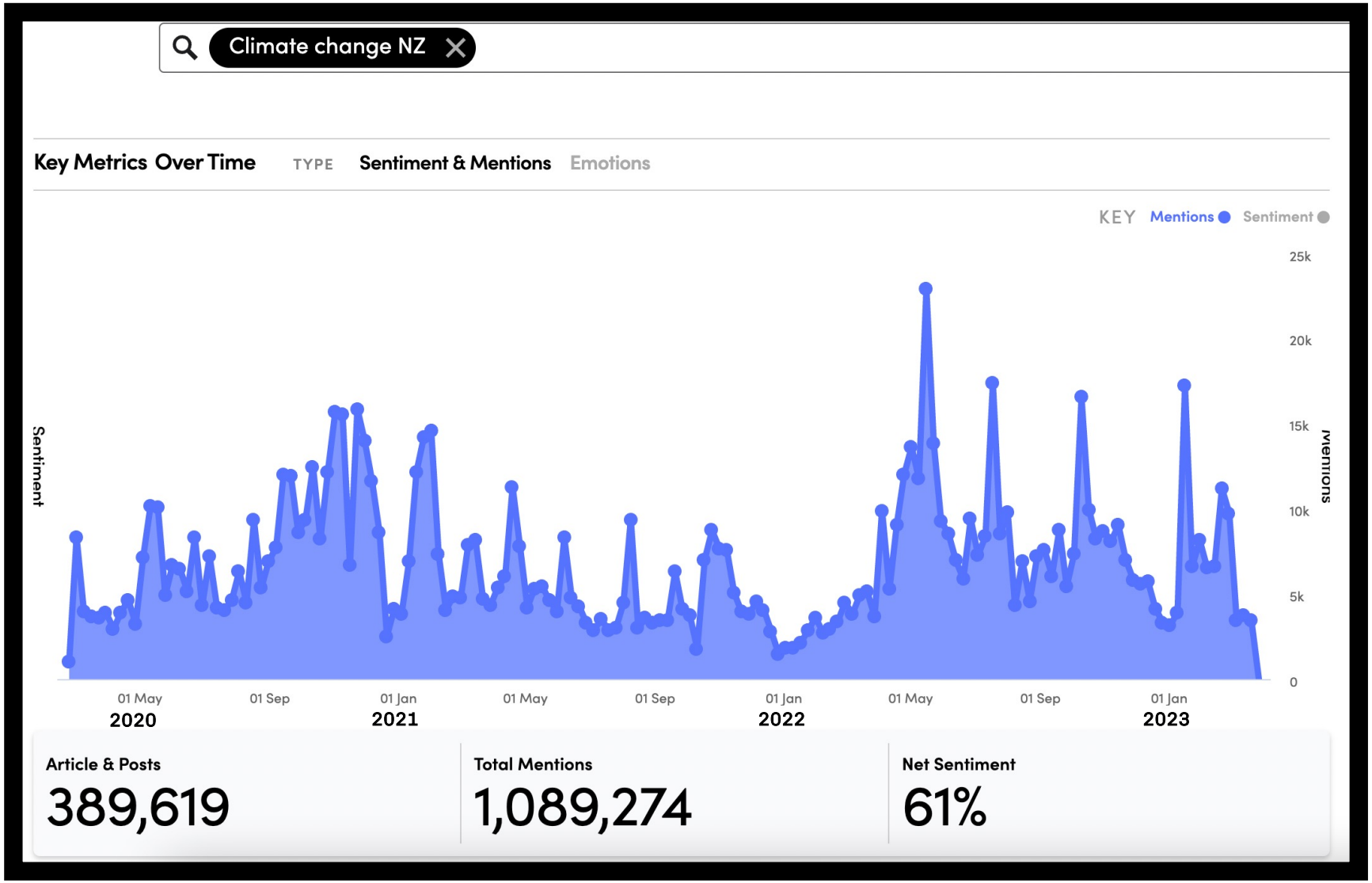
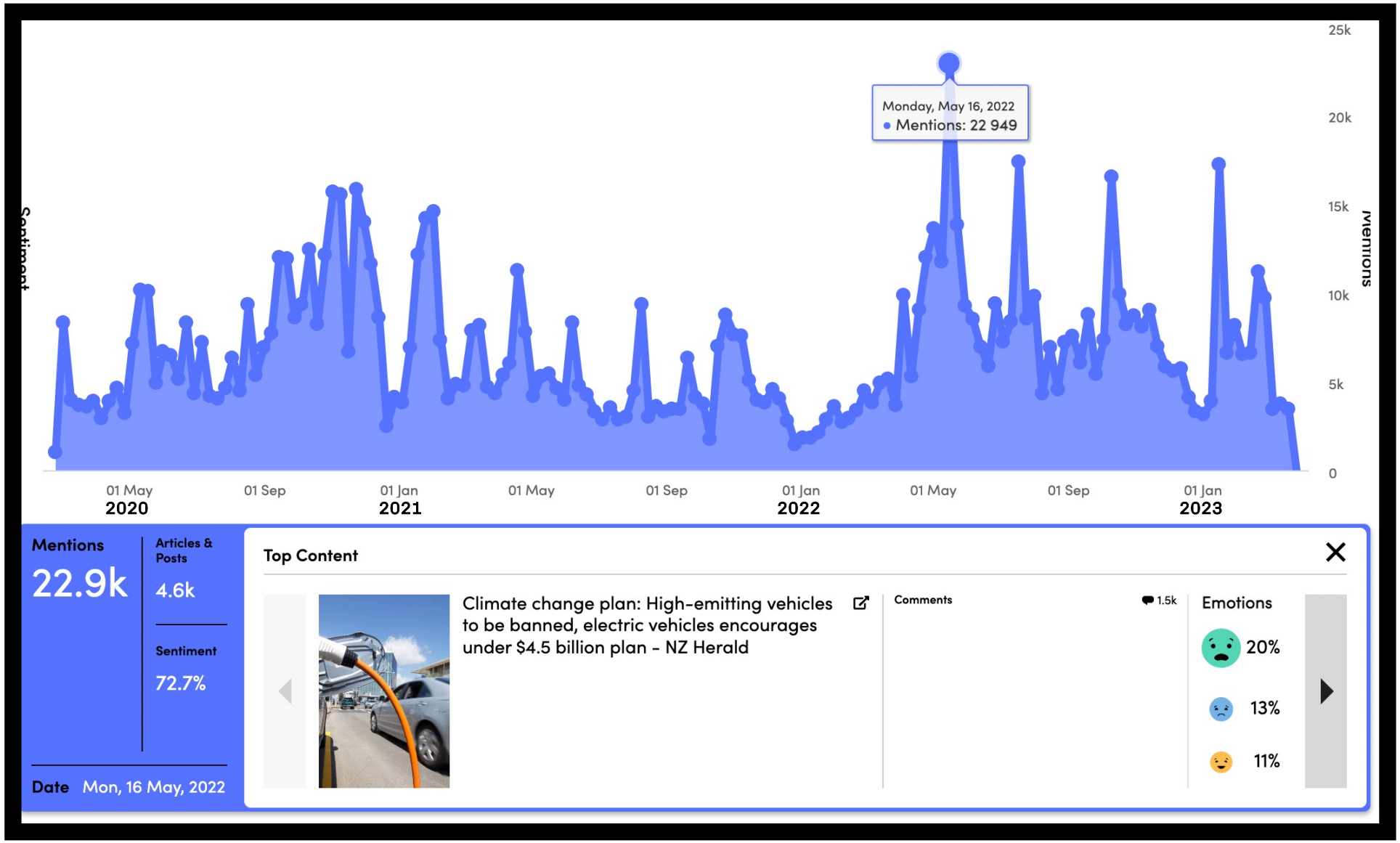
SOURCE: TRA RADAR Media and Social Media Monitoring



Mentions of climate change and related terms is sporadic, but increasing in intensity

TRA

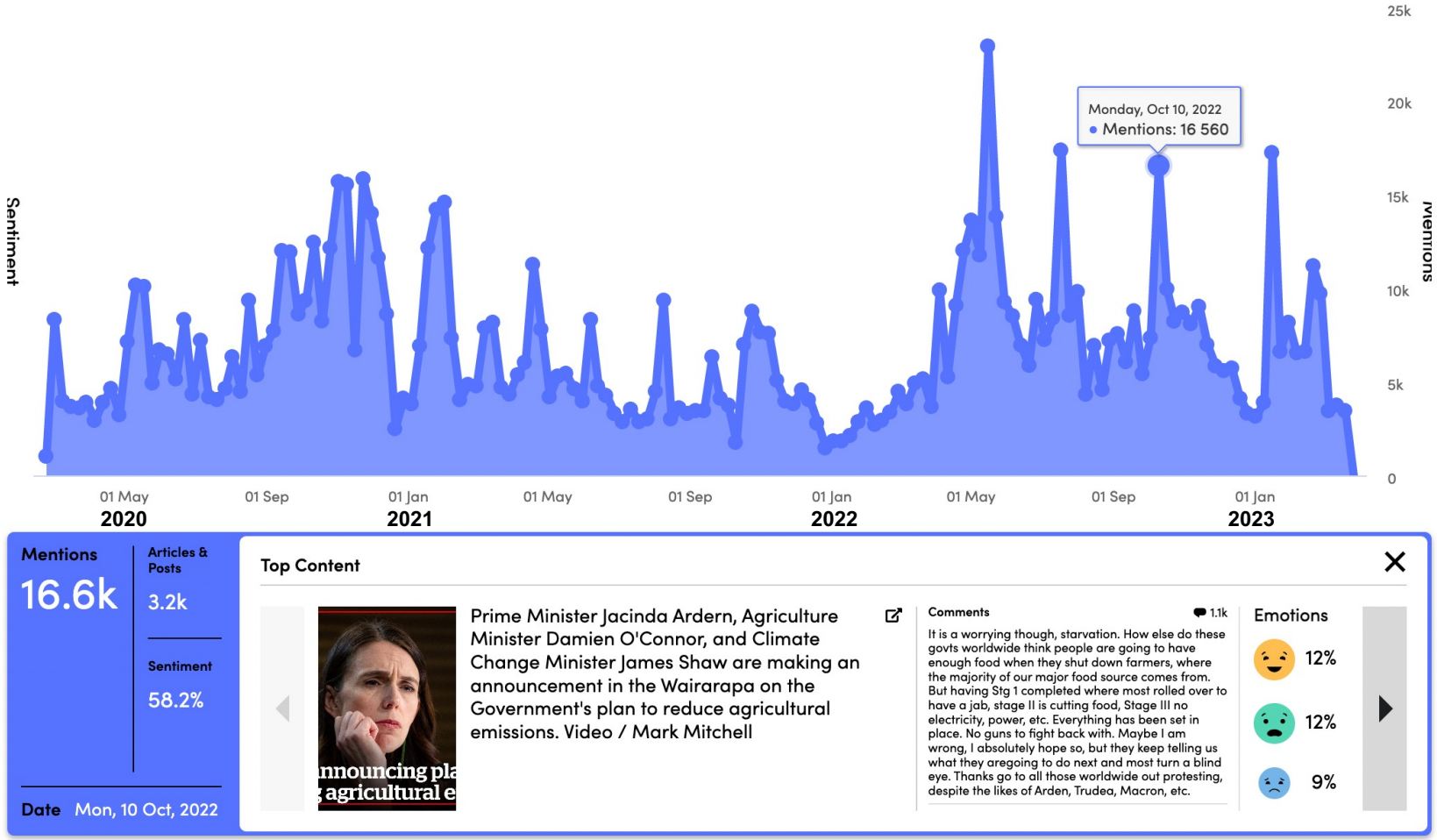
SOURCE: TRA RADAR Media and Social Media Monitoring



The period that generated the most discussion was the ban on high-emitting vehicles in May 2022

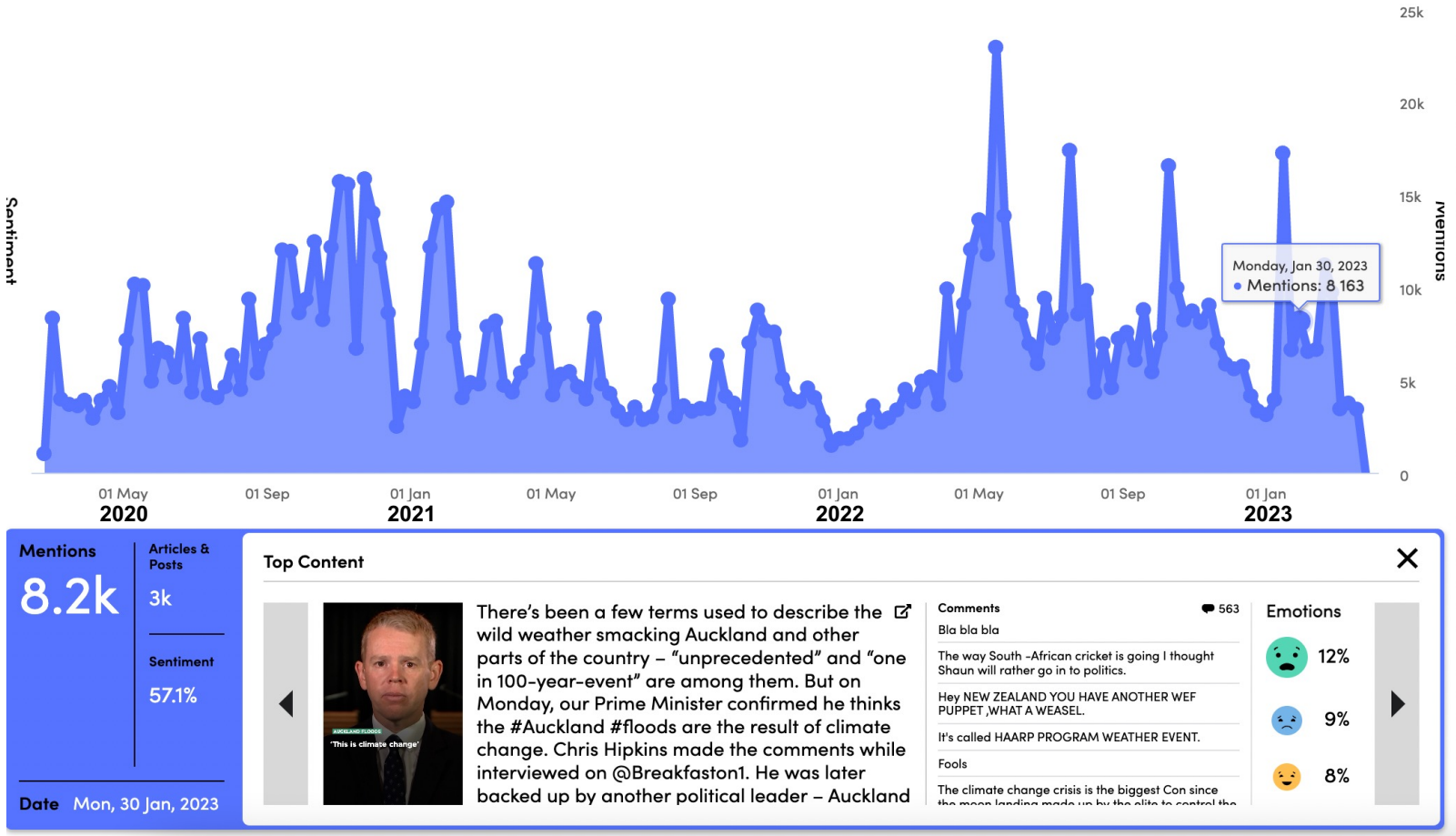
TRA

The plan to reduce agricultural emissions created a peak in October 2022



SOURCE: TRA RADAR Media and Social Media Monitoring

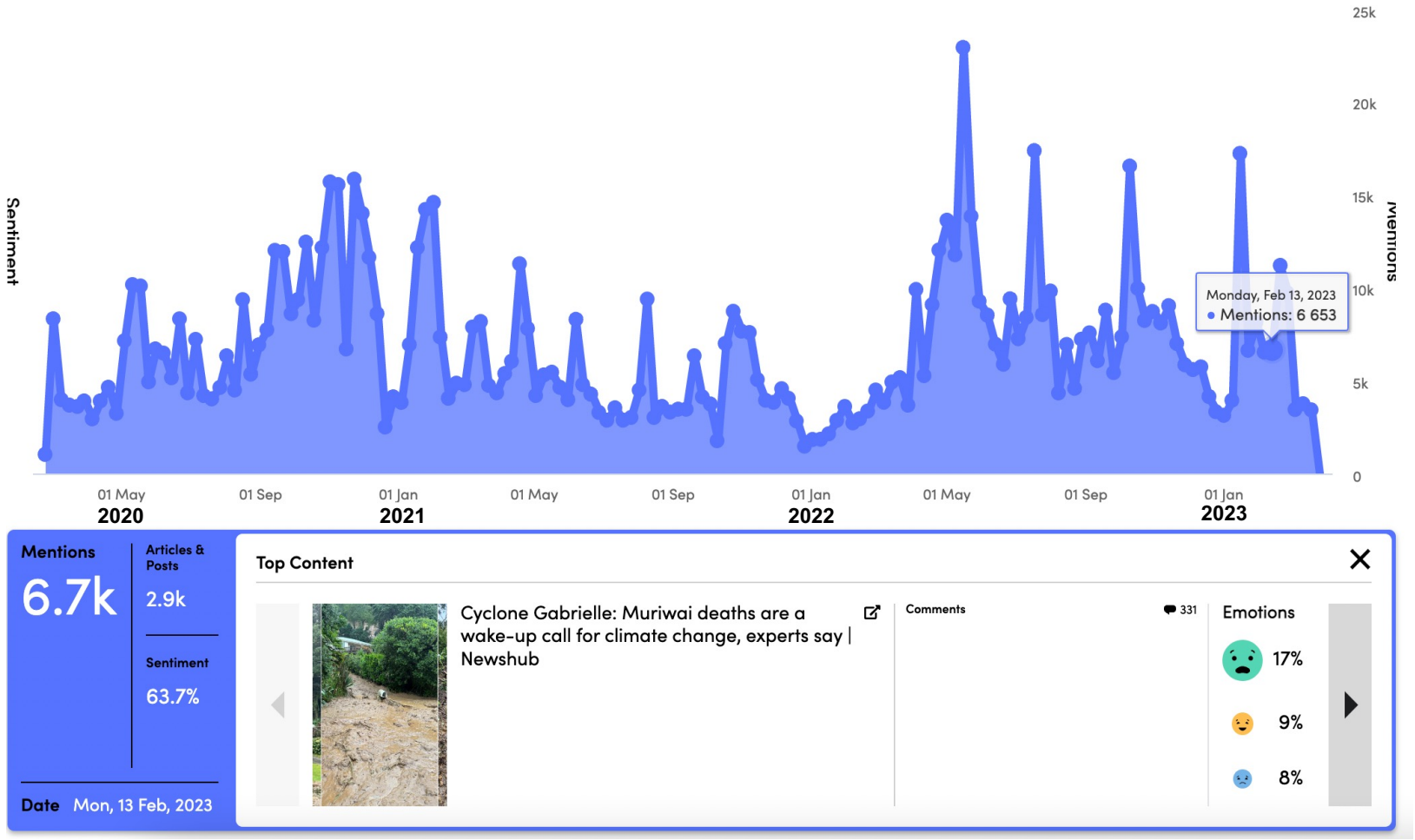
The mentions of climate change around the Jan-23 Auckland floods were a lot lower than political announcements



SOURCE: TRA RADAR Media and Social Media Monitoring

TRA

Similarly, Cyclone Gabriel didn't generate many mentions of climate cange



SOURCE: TRA RADAR Media and Social Media Monitoring

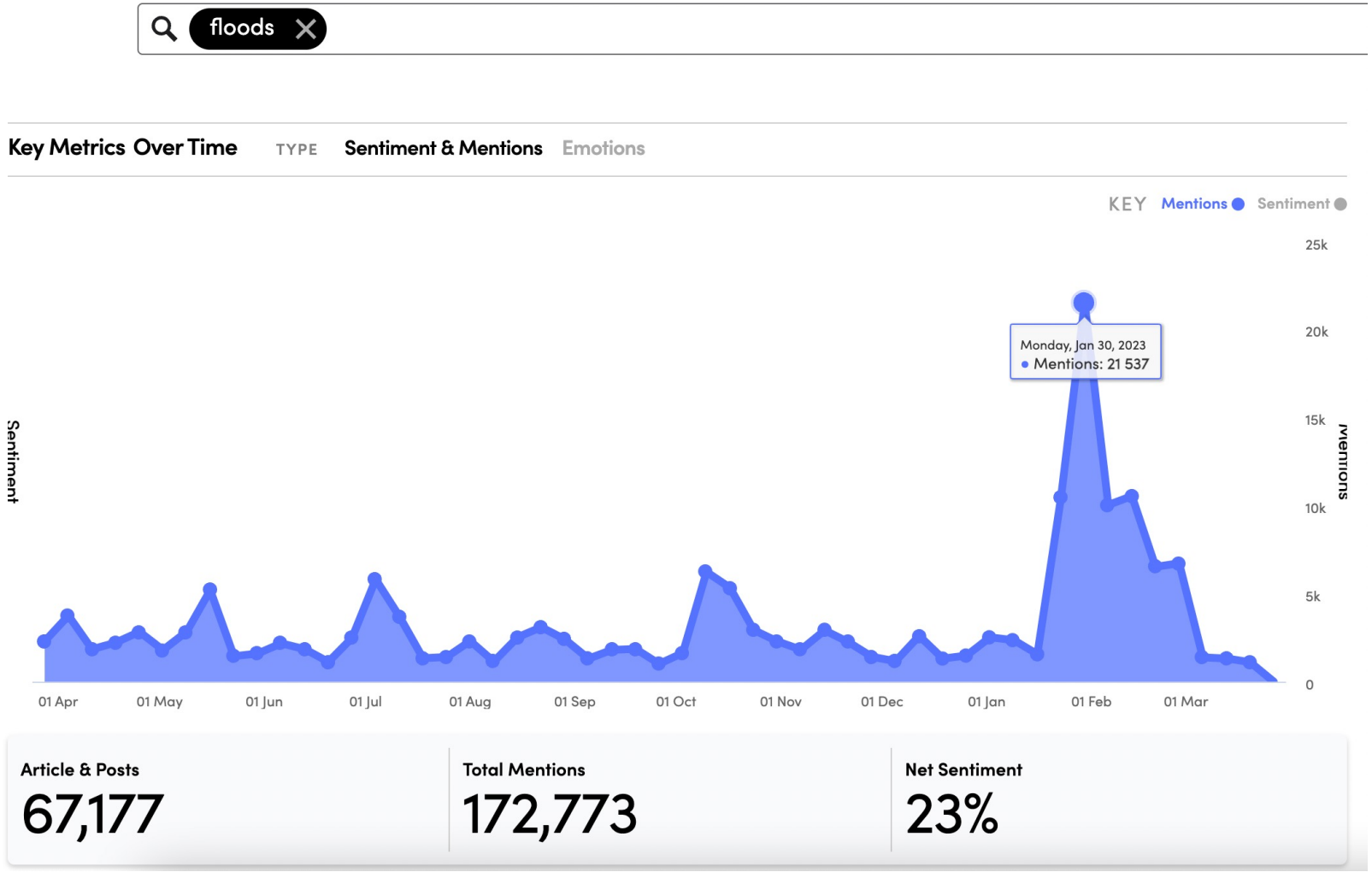
TRA

In contrast, a statement by a politician can generate more mentions of climate change than historical flooding

SOURCE: TRA RADAR Media and Social Media Monitoring

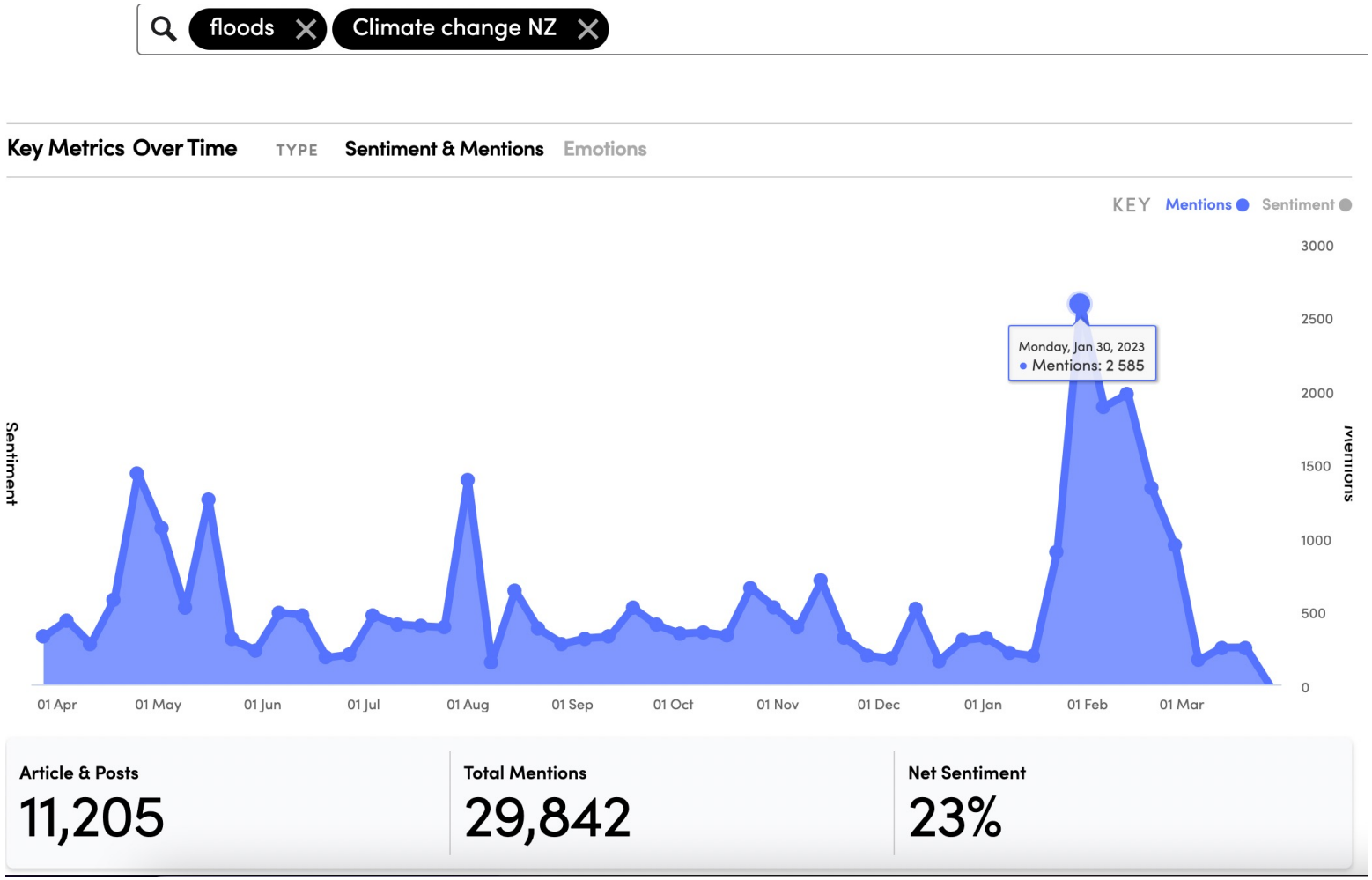
TRA

Flooding generated quite a few mentions after the Auckland floods, more than 21,500



SOURCE: TRA RADAR Media and Social Media Monitoring

However, less than one in eight of those mentions also mentioned climate change, with only 2,500 mentioning both



SOURCE: TRA RADAR Media and Social Media Monitoring

TRA

There needs to be more proactive articles on climate change with a strong link between weather events and climate change.

- Government announcements and comments by politicians are those that generate the most mentions and strongest sentiment
- For instance, comments by Maureen Pugh on the causes of climate change generated more mentions and comments than the Auckland floods and Cyclone Gabriel
- There was only a weak connection between flooding events and climate change, for the majority of the time, they’re not connected

Social Licence

TRA

Social licence within climate change is well covered

What Is Known Within Social Licence

The information on social licence focuses on:

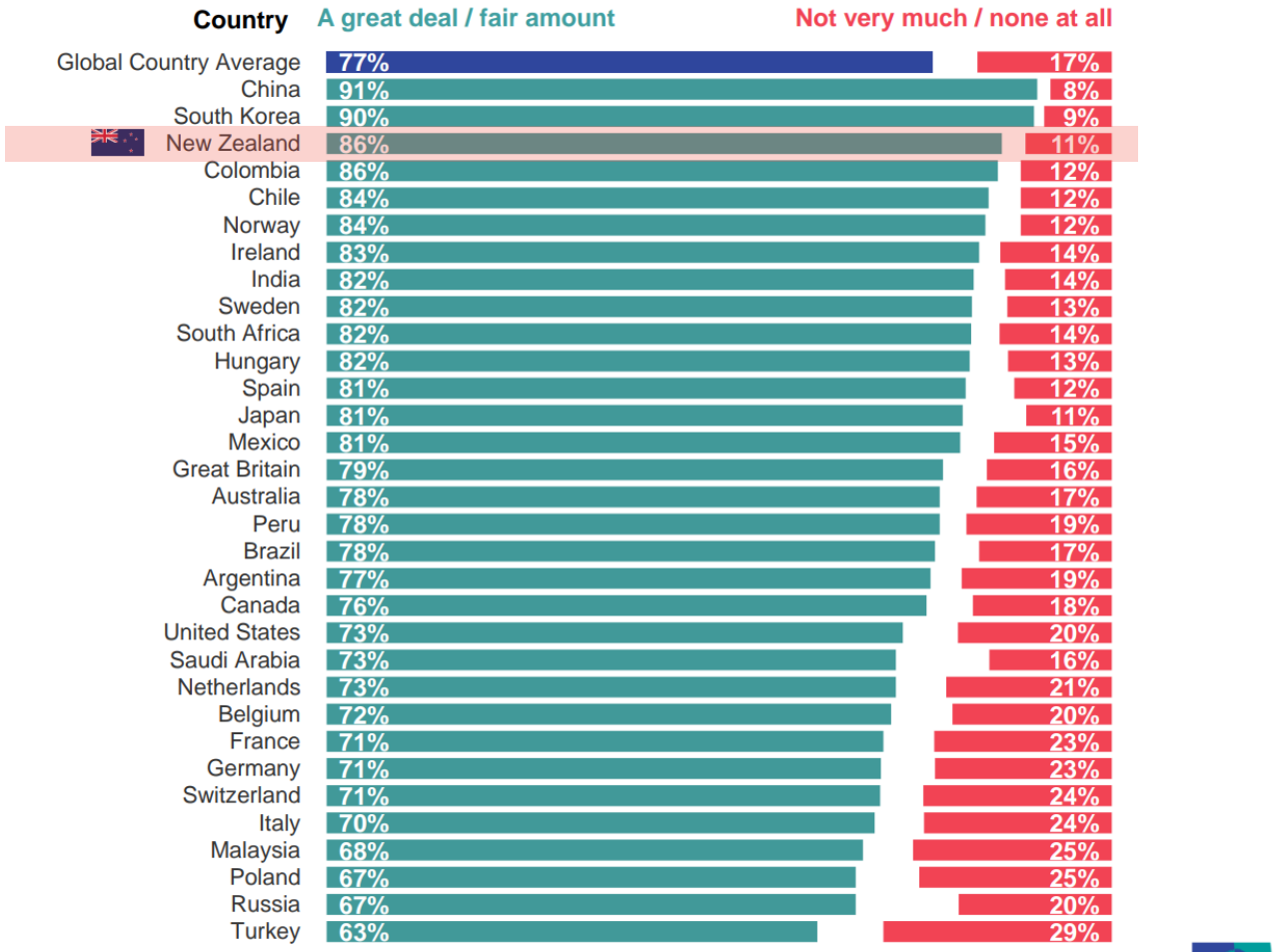
- Perceptions of government plans on climate change
- Perceptions of level of government action towards climate change
- Degree of responsibility the government (both central and local) has towards climate change
- Agreement on whether climate change actions should be in law

The majority of people feel their government is responsible for reducing carbon emissions

Country data

Q. How much responsibility, if any, do each of the following have to reduce their contribution to climate change by reducing carbon emissions?

Government



QED3: *How much responsibility, if any, do each of the following have to reduce their contribution to climate change by reducing carbon emissions?*

Base: *New Zealand (n=1,003), Global (n=23,577 online adults across 31 countries, 18 Feb–4 Mar 2022).* ***NB:*** *Surveyed adults aged 16–74 in 30 countries, adults aged 16–99 in Norway.*

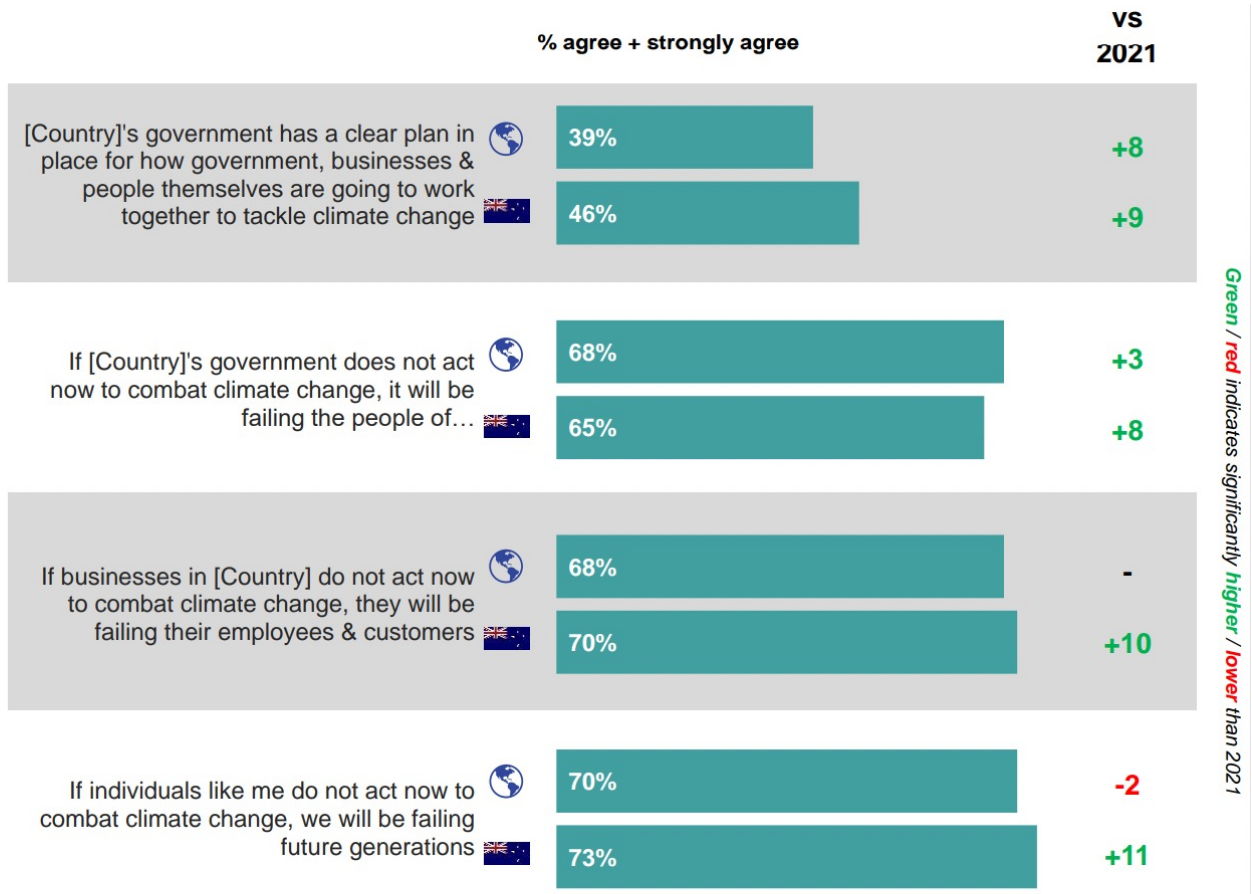
SOURCE: IPSOS global 2022 survey

There has been progress over the last 12 months, with more people thinking their government has a clear plan.
This year, more New Zealanders recognise that individuals & businesses also need to act

Q. To what extent do you agree or disagree with the following…

Global average

New Zealand



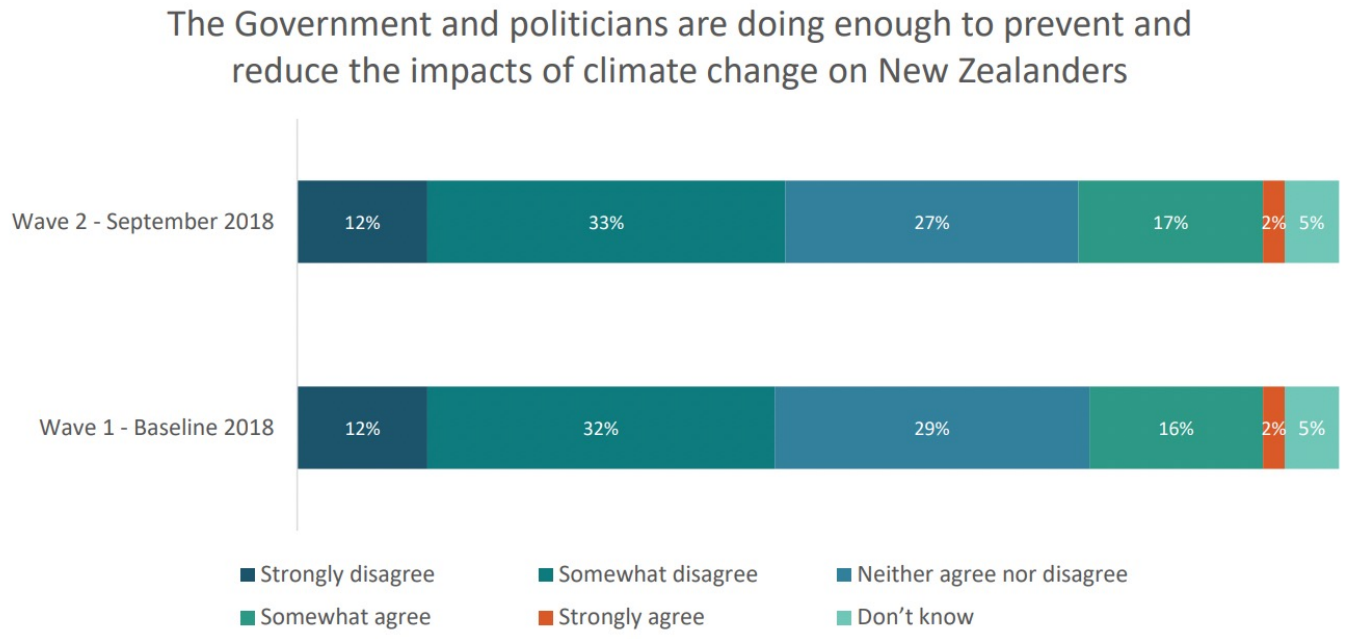
TH2: To what extent do you agree or disagree with the following statements…

Base: 2022 – New Zealand (n=1,003), Global (22,033 online adults aged 16–74 across 29 countries, 18 Feb–4 Mar 2022); 2021 – New Zealand (n=1,010), Global (n=20,511 online adults aged 16–74 across 29 countries, 19 Feb–5 Mar 2021). Note: Comparator countries are those that have been asked this question in 2022 and 2021: Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Colombia, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Netherlands, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, United States of America.

SOURCE: IPSOS global 2022 survey

Only one in five New Zealanders think the Government and politicians are doing enough to prevent reduce the impact of climate change

How much do you agree or disagree with the following statements?



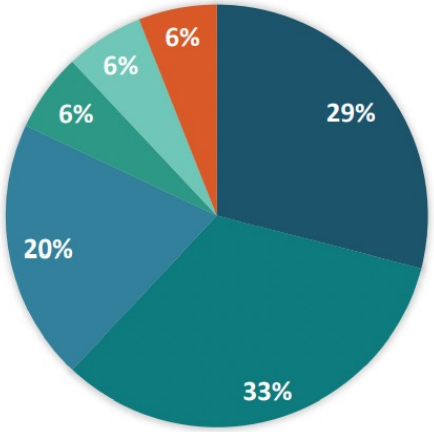
SOURCE: MfE 2018 survey

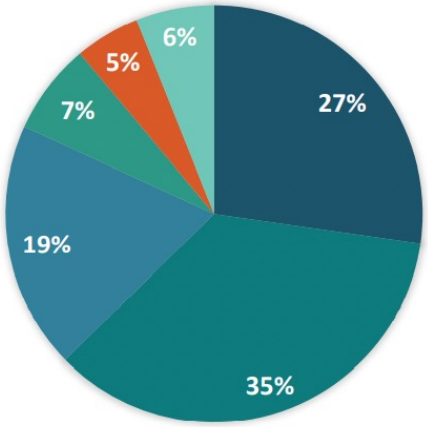
There is strong levels of support for the government setting emission reduction targets

Are you supportive of reducing emissions?

BASELINE

Under the Paris agreement on climate change, New Zealand is currently committed to reducing emissions to 11% below 1990 levels by 2030. The current New Zealand Government has said that it intends to set a more ambitious target for reducing emissions. The targets would be set into law. To what extent do you support or oppose a more ambitious goal?





- Strongly support
- Somewhat support
- Neither support nor oppose
- Somewhat oppose
- Strongly oppose
- I don't know what this means

SEPTEMBER 2018

New Zealand's current 2050 target is to reduce greenhouse gas emissions to 50 per cent below 1990 levels by 2050. Recently, the Government consulted on a new, more ambitious 2050 target for reducing emissions. The targets would be set into law. To what extent do you support or oppose a more ambitious target?

Ministry for the Environment

Making Aotearoa New Zealand the most liveable place in the world

SOURCE: MfE 2018 survey

TRA

Personal expectations

Generally less than half of New Zealanders are expecting to have to make a significant personal contribution

Personal expectations of climate change	2018 n=1,000	2019 n=1,010	2020 n=1,000	2021 n=1,001	2022 n=1,011
High expectation of paying more in taxes and council rates	-	-	41%	40%	38%
Low expectation of paying more in taxes and council rates	-	-	22%	20%	25%
High expectation of paying more in insurance premiums	-	-	38%	37%	40%
Low expectation of paying more in insurance premiums	-	-	23%	25%	19%
High expectation of accepting more stringent council rules about where and how you live	-	-	41%	39%	38%
Low expectation of accepting more stringent council rules about where and how you live	-	-	18%	19%	20%
High expectation of putting more effort into understanding the wider impacts	-	-	46%	48%	52%
Low expectation of putting more effort into understanding the wider impacts	-	-	16%	16%	12%
High expectation of changing where you choose to live	-	-	32%	20%	29%
Low expectation of changing where you choose to live	-	-	28%	49%	36%
High expectation of taking action even if friends, family, colleagues and neighbours aren't	-	-	42%	40%	39%
Low expectation of taking action even if friends, family, colleagues and neighbours aren't	-	-	20%	20%	21%

SOURCE: IAG/IPSOS 2022 survey

The role of Government

There's strong division on whether taxes should be raised to pay for climate change responses

Actions	2018 n=1,000	2019 n=1,010	2020 n=1,000	2021 n=1,001	2022 n=1,011
Should amend laws to empower local councils to reduce or avoid climate change impacts	-	71%	71%	71%	73%
Should not amend laws to empower local councils to reduce or avoid climate change impacts	-	8%	10%	9%	7%
Should provide guidelines to local councils to reduce and avoid climate change impacts	-	79%	81%	82%	81%
Should not provide guidelines to local councils to reduce and avoid climate change impacts	-	5%	6%	5%	4%
Should step in when insurers and banks pull back from supporting high-risk places	-	49%	48%	47%	49%
Should not step in when insurers and banks pull back from supporting high-risk places	-	16%	19%	19%	18%
Should fund science to help reduce climate change	-	-	78%	78%	76%
Should not fund science to help reduce climate change	-	-	6%	7%	7%
Should use funds to help build infrastructure that reduces the impact of climate change	-	-	77%	78%	76%
Should not use funds to help build infrastructure that reduces the impact of climate change	-	-	7%	6%	5%
Should use funds to protect homes and businesses from the impacts of climate change	-	53%	-	56%	63%
Should not use funds to protect homes and businesses from the impacts of climate change	-	14%	-	13%	10%
Should buy out property owners severely impacted by climate change	-	-	48%	46%	52%
Should not buy out property owners severely impacted by climate change	-	-	17%	20%	15%
Should raise taxes to help fund its response to climate change	-	-	32%	31%	34%
Should not raise taxes to help fund its response to climate change	-	-	38%	38%	33%

SOURCE: IAG/IPSOS 2022 survey

There needs to be more work done by the government to increase the degree of social licence as it pertains to particular actions, especially taxes.

- There is a general social licence for government to do more about climate change, but there is limited detail on what is acceptable
- General perceptions are that government is not doing enough to reduce the impacts of climate change
- There is strong disagreement on whether taxes should be increased to pay for climate change initiatives

TRA

Segmentation

TRA

There is moderate coverage of the ways of segmenting people

What Is Known Within Segmentation

The information on segmentation focuses on:

- Base demographic information, particularly:
  - Age
  - Gender
- Attitudes
- Behaviours (high-level and stated)

TRA

Auckland Council used a framework based off Gretchen Ruben's "Four Tendencies

Reframing the Tendencies

As a workshop discussion tool we reframed the four tendencies as the four family members of The Simpsons.

Upholder: does the right thing because it's the right thing **LISA.**

Obliger: puts family and community first and acts in their interests **MARGE**.

Questioner: asks "what's in it for me?" and acts if there's a benefit to them **HOMER**.

Rebel: unlikely to confirm with society's expectations but may act if compelled **BART**.

Sizing the Auckland Council attitudinal segments

Sizing the tribes

Previous Council research gives some rough insights into the size of each group. (Environmental Team report April 2017).

"One in five Aucklanders do everything they can to reduce their carbon footprint" – aligns with the **Upholder** tendency.

"Half of Aucklanders will only make changes if there are other associated benefits" – aligns with the **Questioner** tendency.

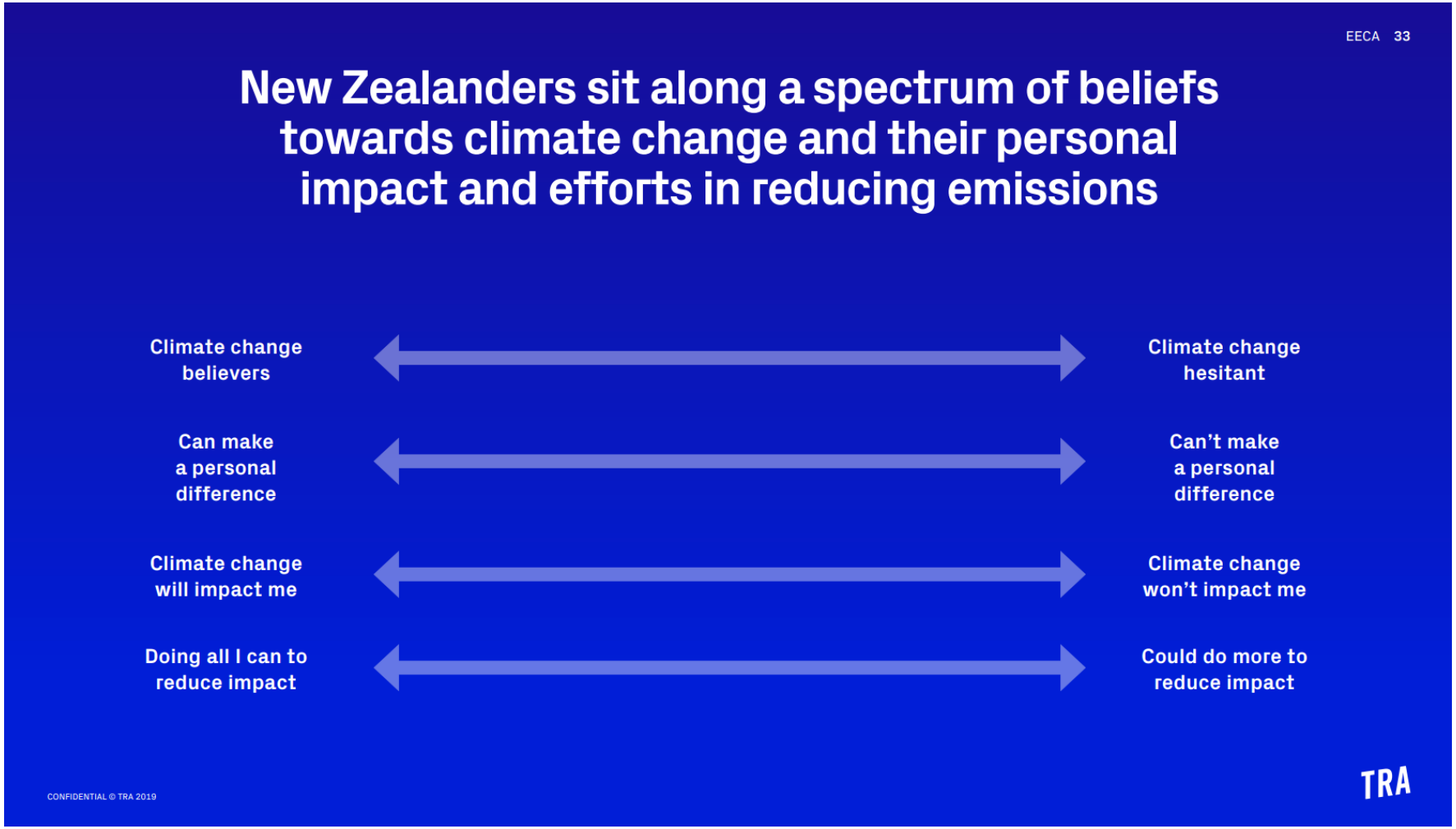
Rebel group is harder to quantify.
7% said reducing carbon footprint is not important.
Including 2% who said the issue is exaggerated or a government lie.

This could suggest the **Obliger** tendency takes up the remaining 20% or so.

Conclusion

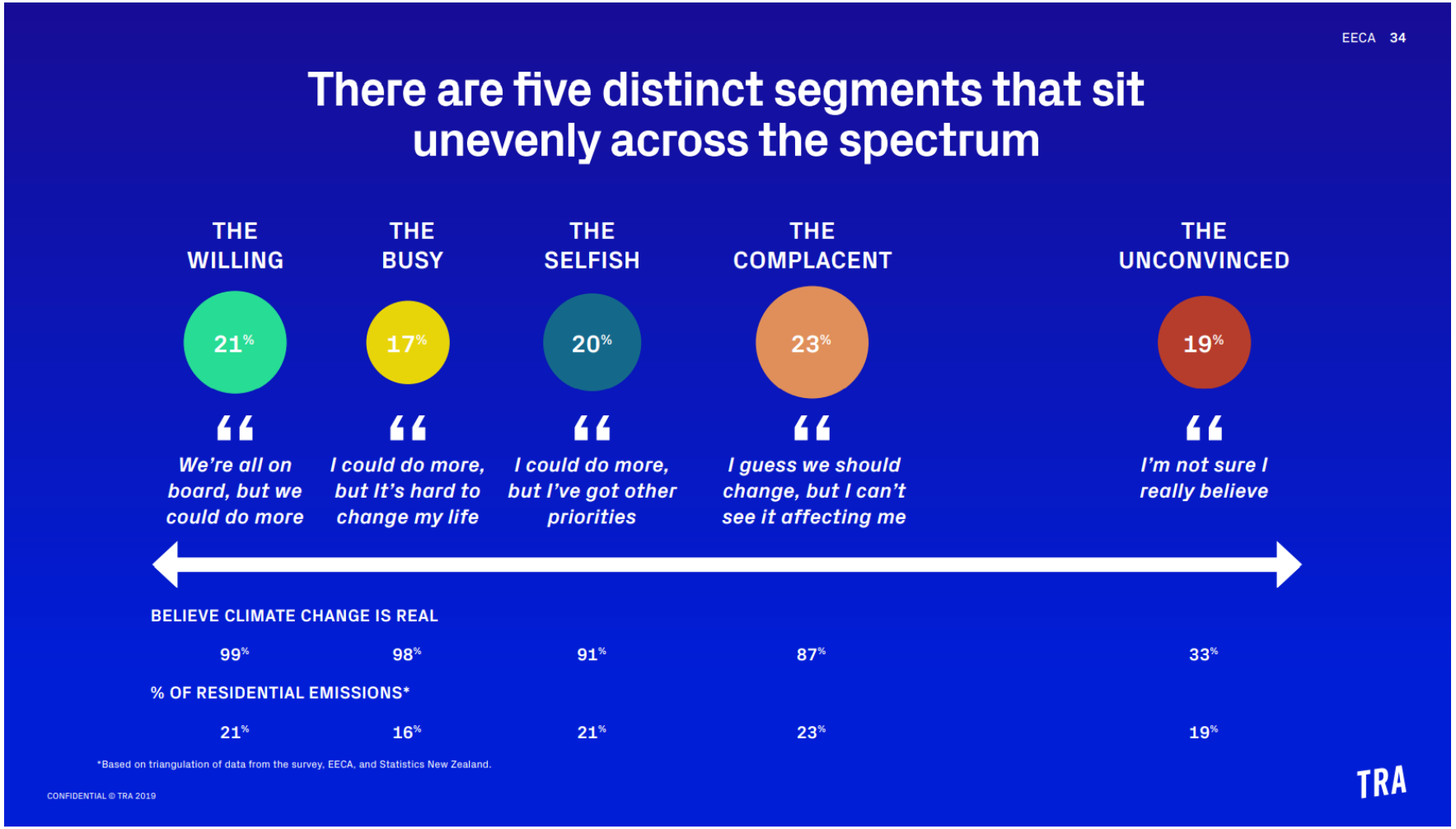
Focussing on the Obliger and Questioner groups makes sense. The next step is to bring these two tribes to life.

EECA has taken a beliefs-based approach to segmenting New Zealanders



TRA

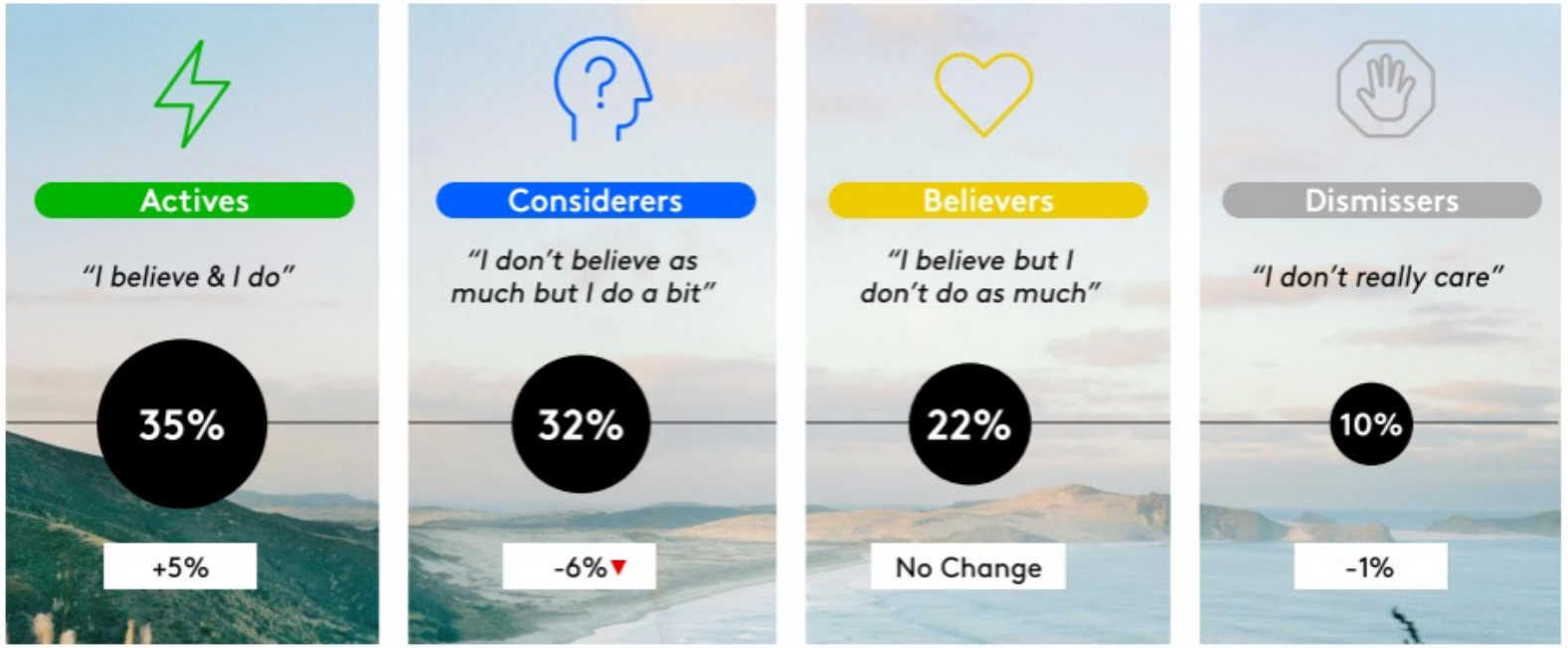
This resulted in five segments that worked on a spectrum



TRA

Sustainable Business Council segments households on perceptions towards sustainable actions and values

The last 12 months has seen a notable increase in sustainability activism



KANTAR

Segmentation was created from Q: To what extent do you agree with these statements? Base: 1000
Change relative to previous year (Dec 2021 vs Jan23)

▲▼ Significantly higher / lower than previous period

8

TRA

A different approach to segmenting the population is needed.

- The psychological approaches to segmentation are based on trying to shift people along a continuum towards action
- However, there is only a weak relationship between beliefs and action, therefore these segmentations will fall short on driving action
- Looking at the population through simple demographics such as age and gender provide differences in beliefs, but not necessarily action, limiting their usefulness

TRA

Summary of information known

TRA

Information Area	Depth of Information	Information Gaps
Knowledge	High	None, it is regularly monitored across a range of different aspects
Behaviours	High	Focuses on reported, high-level actions. Needs to be more based on detailed actions taken recently
Motivations	Low	Motivations are relatively high-level and there isn't much depth on knowledge on them. Needs more qualitative work to understand them better
Barriers	Low	Barriers are relatively high-level and there isn't much depth on knowledge on them. Needs more qualitative work to understand them better
Needs	Low	No coverage, in any form, needs to be collected
Sentiment	High	None, real time collection and analysis
Social Licence	Moderate	Needs more detailed, concrete measurement of support towards specific government actions
Segmentation	Moderate	Need to look beyond demographics and attitudes to include segmentations based on actions. Within actions there is a need to move beyond reported high-level actions

TRA

Information Assessed vs. Behaviour Change Frameworks

TRA

Response to climate change is complex, but ultimately it's about behaviours

Because behaviour is not always in line with beliefs or motivations we have used two frameworks that can acknowledge and account for this. These frameworks allow us to structure the current knowledge and our analysis.

COM-B

A proven behaviour change framework that is simple, yet powerful.

We will use this framework to understand if the information has the ability to influence any of these three behaviour change levers:
- I know how to change
- I can change
- I want to change

REDUCE/RESPOND/RECOVER/READINESS

An extensively used framework grouping the different actions for responding to climate change.

This framework allows us to identify what types of information people know they have access to.

TRA

Looking through the COM-B framework there are large information gaps for Opportunity and Motivation

Behaviour Change Driver	Depth of Information	Information Gaps
Capability	High	None, it is regularly monitored across a range of different aspects
Opportunity	Low	Opportunities are relatively high-level. Needs more understanding of detailed opportunities
Motivation	Very Low	Motivations are relatively high-level and there isn't much depth on knowledge on them. Needs more qualitative work to understand them better

TRA

Looking through the Reduce/Respond/Recover/Readiness framework there are very large information gaps

Response Action	Depth of Information	Timing
Reduce	Moderate	Opportunities are relatively high-level. Needs more understanding of detailed actions at reduction
Respond	Very Low	Up until very recently, global agreements and research has focused on reduction. Only very recently has the conversation started to include other elements but this hasn't flown through to research
Recover	Very Low	
Readiness	Low	

TRA

What Is Known From a Māori and Pasifika Perspective

TRA

All the studies reviewed were based on nationally representative samples and therefore captured the views of Māori and Pasifika, but there has been no reporting on either of these groups.

The focus of the studies has mostly been about moving an entire population. This is where the greatest gains can be made as the majority of people aren't taking enough actions, therefore moving everyone a little bit, rather than moving a particular group a lot is a more efficient strategy.

Where there is sub-group reporting, it is by age and gender, where there are differences in attitudes.

Analysing the EECA/TRA research programme, Māori show slight differences to the total population: they are more likely to think it is an important issue but see more barriers to acting.

- Feel slightly more strongly that the issue of climate change is important
- Are less likely to think that a lot of small actions can add up
- More likely to think action will impact their quality of life
- More likely to think they can do more
- See cost as the main barrier to acting
- Are more likely to hear about climate change through friends and family

Analysing the EECA/TRA research programme, Pasifika differ to the total population in that they feel it is more important and have a greater motivation, but are restrictedd by cost as a barrier to acting.

- Feel slightly more strongly that the issue of climate change is important
- More likely to think that they have a part to play in system change
- Are more motivated by helping New Zealand meet its targets
- More likely to believe they can meet their actions can make a difference
- See cost as the main barrier to acting
- More likely to get their information from media and social media

Business Perspectives

There are two sides to understanding Business perspectives

What business decision makers' attitudes towards climate change are and what actions they believe they are taking.

What advice business decision makers are receiving, either paid for or free, from Central and Local Government, Consultancies, Lawyers, Insurance Companies, etc.

What is Known About Business Decision Maker Perceptions

TRA

There are only two sources on Business Decision Maker perceptions of climate change

EECA/TRA twice annual survey of business decision makers from any sized organisation and any industry

StatsNZ 2019 Business Operations survey of business decision makers of organsiations with 6 or more FTE

These two sources provide us with reasonable coverage of the key information areas

Information Area	EECA/TRA	StatsNZ
Knowledge	Covered	Covered
Behaviours	Covered	Covered
Motivations	Covered	Covered
Barriers	Covered	Covered
Needs	Not covered	Not covered
Sentiment	Not covered	Not covered
Social Licence	Not covered	Not covered
Segmentation	FTE?	Size (as per FTE) and Industry

TRA

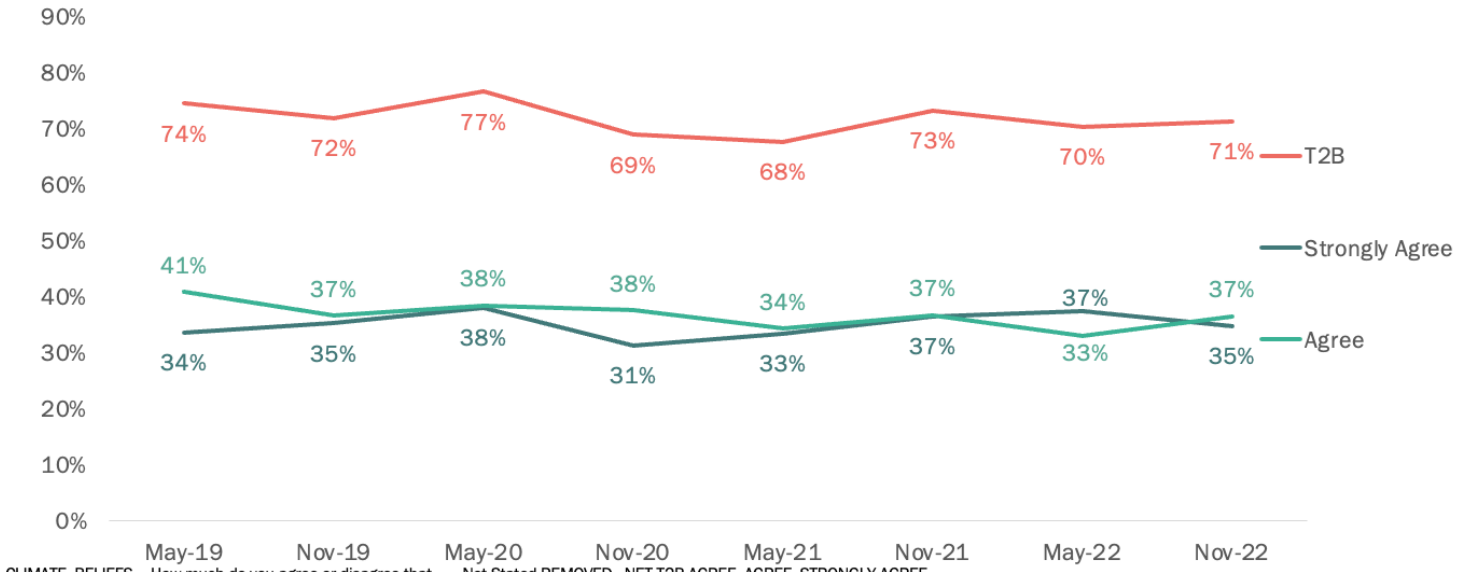
Knowledge

TRA

SOURCE: EECA/TRA 2022 survey

In the midst of an increasingly difficult climate, belief that climate change is real remains stable

Climate beliefs: Climate change is real



CLIMATE_BELIEFS – How much do you agree or disagree that... – Not Stated REMOVED - NET T2B AGREE, AGREE, STRONGLY AGREE
May 2019 n=498, Nov 2019 n=498, May 2020 n=486, Nov 2020 n=496, May 2021 n=613, Nov 2021 n=505, May 2022 n=629, Nov 2022 n=521

Statistically significant difference: ▲▼

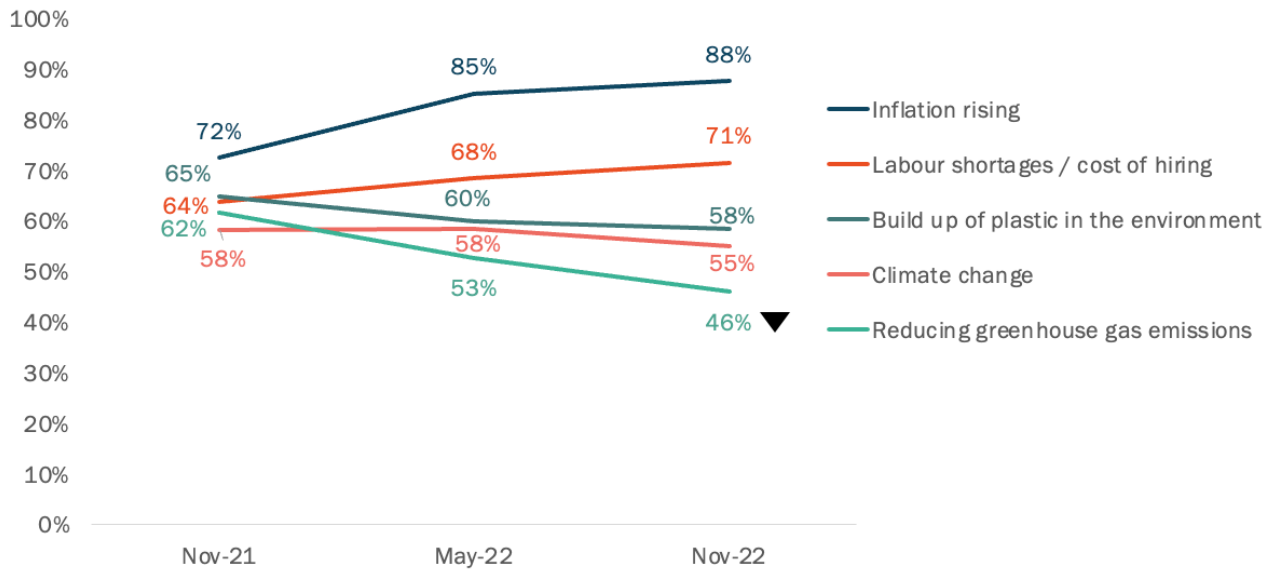
EECA

TRA

SOURCE: EECA/TRA 2022 survey

In fact, our environmental issues are at new lows – whereas inflation rising and labour shortages are at new highs

General issues in New Zealand (Important / Very important)



Labour shortages/cost of hiring saw a significant 9 point increase in being seen as a very important issue versus May-22 – and is up 16 points from this time last year.

Statistically significant difference: ▲▼

GENERAL_ISSUES - How important do you consider each of the following issues to be for New Zealand Businesses?
Base: November 22 n=521

9

Most businesses are aware of the potential impact of climate change

Table 7

Businesses awareness of the potential impact of climate change

(Transition to a Low Emissions Economy)

By size and industry[1][2]

2021

Size / Industry	Very aware	Somewhat aware	Not aware	Don't know
	Percent			
Total	39	45	8	8

1. The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
2. Business size is defined by rolling mean employment (RME). For more information on RME, see the Data Dictionary in BOS Series Data Collection – DataInfo+
3. Results for the mining and electricity, gas, water, & waste services industries should be treated with caution due to the small numbers of businesses in these categories.

Note: Percentages are based on rounded numbers.

Due to rounding, some numbers may not sum to stated totals.

The data collected refers to the most recent completed financial year of the business.

Source: Stats NZ

TRA

There is also high awareness of government policies to reduce greenhouse gases

Table 8

Businesses' awareness of government's policies and programmes to reduce greenhouse gases

(Transition to a Low Emissions Economy)

By size and industry[(1)(2)]

2021

Size / Industry	Very aware	Somewhat aware	Not aware	Don't know
	Percent			
Total	27	55	11	7

1. The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
2. Business size is defined by rolling mean employment (RME). For more information on RME, see the Data Dictionary in BOS Series Data Collection – DataInfo+
3. Results for the mining and electricity, gas, water, & waste services industries should be treated with caution due to the small numbers of businesses in these categories.

Note: Percentages are based on rounded numbers.

Due to rounding, some numbers may not sum to stated totals.

The data collected refers to the most recent completed financial year of the business.

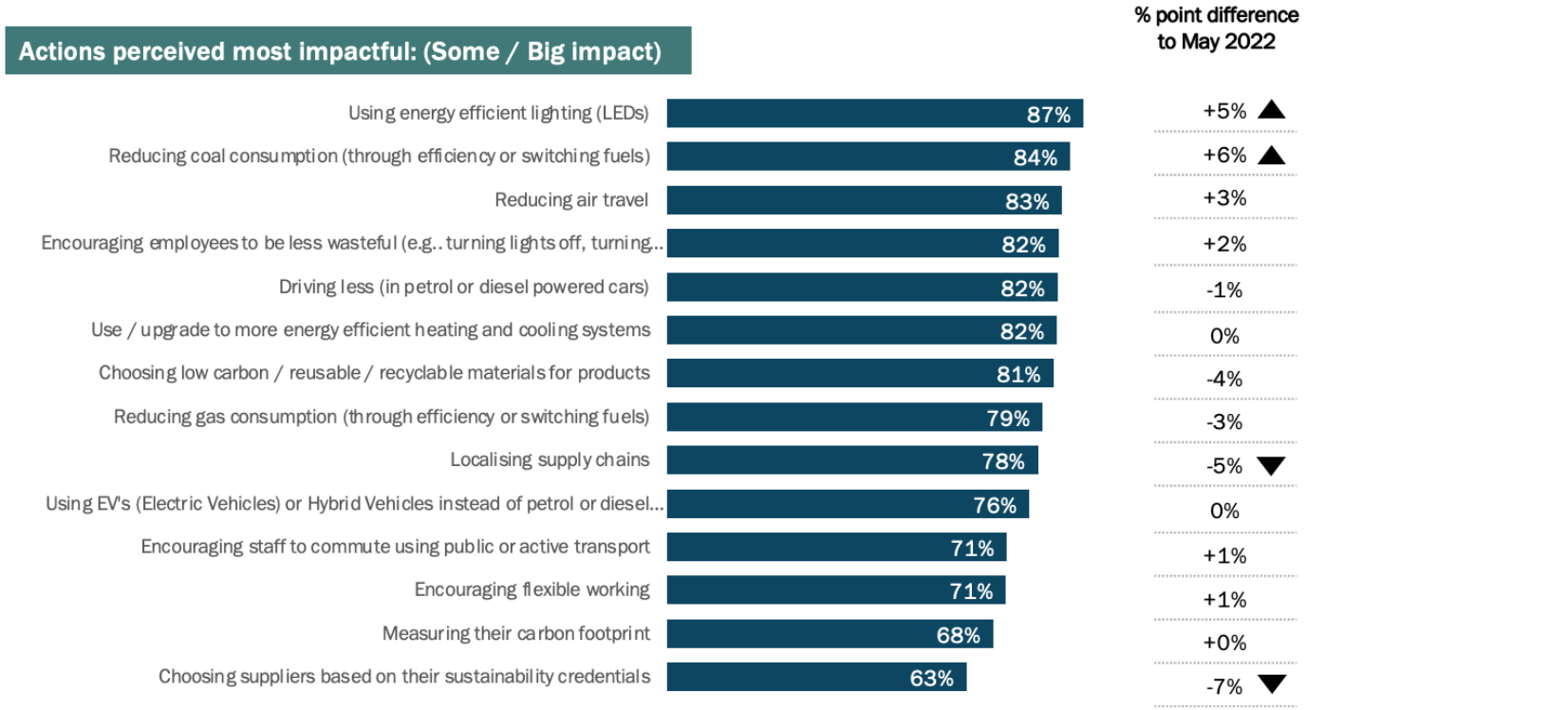
Source: Stats NZ

TRA

SOURCE: EECA/TRA 2022 survey

Businesses perceive that the most impactful action they can take to reduce their climate impact is to use LEDs

And a decrease in perceived impact of localizing supply chains and choosing suppliers based on their sustainability credentials



CLIMATE EFFECT: Thinking about businesses, how much of an impact do you think the following have on helping to reduce climate change (NET some/big impact)
Base: n=521

38

There is a need to focus on business leaders as an influential group that lags the general population

- While generally believing of climate change, business decision makers are more less convinced than the general population
- There is limited knowledge of the most impactful actions, with less impactful actions being the ones most thought of as having a large impact

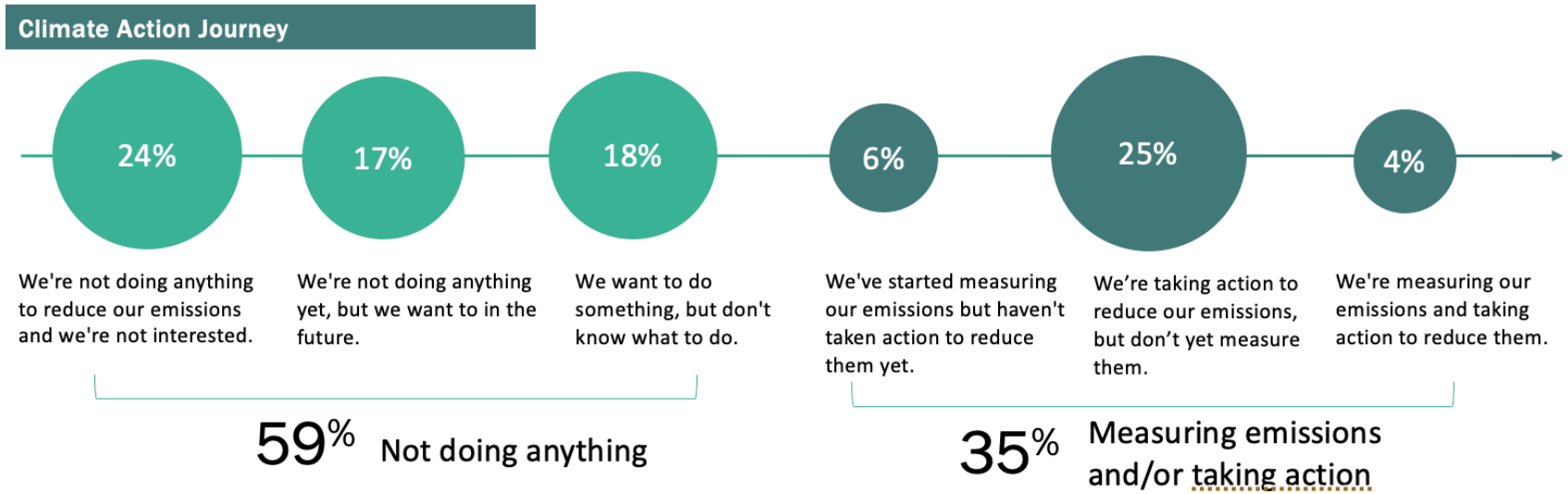
Behaviours

TRA

SOURCE: EECA/TRA 2022 survey

The majority of businesses are yet to begin the journey of reducing their carbon emissions

Almost 1 in 5 businesses want to do something, but don't know what to do.



CLIMATE_JOURNEY: What stage is your business at in taking action to reduce its carbon emissions? Base: n=324

We're not doing anything to reduce our emissions and we're not interested n=47, We're not doing anything yet, but we want to in the future n=55, We want to do something, but don't know what to do n=66, We've started measuring our emissions but haven't taken action to reduce them yet n=30, We're taking action to reduce our emissions, but don't yet measure them n=83, We're measuring our emissions and taking action to reduce them n=23

EECA

20

TRA

Very few businesses are acting in response to climate change

Table 9

Actions businesses undertook in the last two years[1]

(Transition to a Low Emissions Economy)

2021

Climate change-related action	Done in response to climate change	Done for some other reason	Not done	Not applicable	Don't know
	Percent				
Developed programmes to offset emissions	6	7	41	37	9
Reduced waste	23	34	18	16	9
Stopped or reduced using coal and / or natural gas	1	1	17	72	9
Developed or expanded offering of low emission goods and services	6	4	22	59	10
Changed to lower emission technologies	8	6	29	47	11
Switched to more sustainable suppliers	11	9	35	33	11
Increased use of digital technologies	10	39	16	26	9
Assessed the risks to the business of the physical impacts of climate change (eg increased flooding	9	7	37	35	11
Took steps to reduce the risks to the business of the physical impacts of climate change	8	7	41	32	12
Overall[2]	35[3]	59[4]	..	..	..

1. The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
2. The numbers across this row will not sum to 100 percent. A business may select a different combination of any of the above actions.
3. This refers to the percentage of businesses that took any of the climate change-related actions in response to climate change.
4. This refers to the percentage of businesses that did any of the climate change-related actions for some other reason.

Note: Percentages are based on rounded numbers.

Due to rounding, some numbers may not sum to stated totals.

The data collected refers to the last two completed financial years of the business.

.. Figures not available

Source: Stats NZ

TRA

There's only moderate desire to act in the next five years

Table 10

Actions businesses planning to do in the next five years[1]

(Transition to a Low Emissions Economy)

2021

Climate change-related action	Plan to do in response to climate change	Plan to do for some other reason	Not planning to do	Not applicable	Don't know
	Percent				
Develop programmes to offset emissions	11	6	34	34	16
Reduce waste	33	31	9	14	12
Stop or reduce using coal and / or natural gas	5	2	14	69	11
Develop or expand offering of low emission goods and services	12	6	15	54	13
Change to lower emission technologies	17	9	18	40	16
Switch to more sustainable suppliers	20	10	24	28	18
Increase use of digital technologies	17	32	14	24	14
Assess the risks to the business of the physical impacts of climate change (eg increased flo	18	8	21	34	18
Take steps to reduce the risks to the business of the physical impacts of climate change	19	8	21	32	19
Overall[2]	45[3]	50[4]	..	..	..

1. The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
2. The numbers across this row will not sum to 100 percent. A business may select a different combination of any of the above actions.
3. This refers to the percentage of businesses that plan to take any of the climate change-related actions in response to climate change.
4. This refers to the percentage of businesses that plan to take any of the climate change-related actions for some other reason.

Note: Percentages are based on rounded numbers.
Due to rounding, some numbers may not sum to stated totals.
The data collected refers to the most recent completed financial year of the business.
.. Figures not available

Source: Stats NZ

SOURCE: Stats NZ Business Operations 2021 survey

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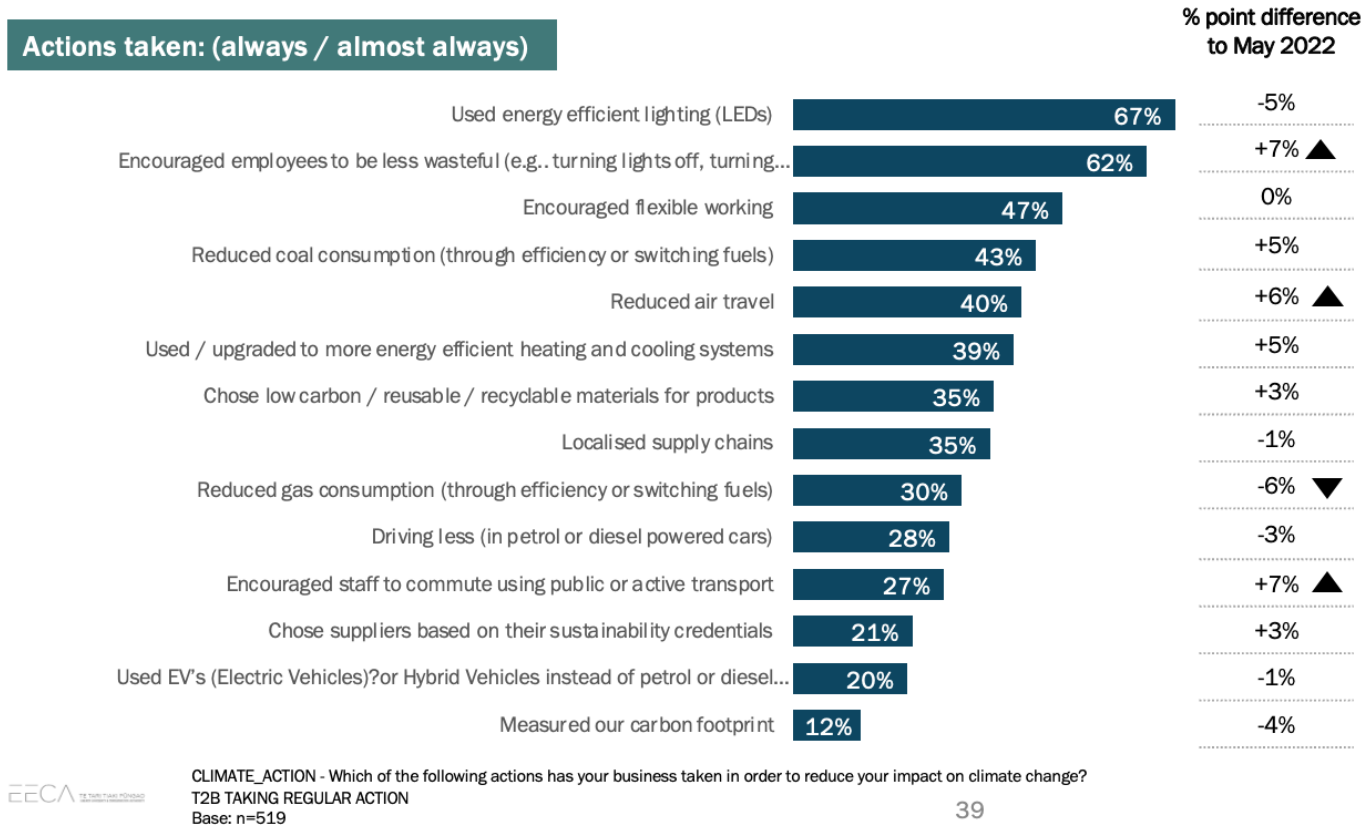
SOURCE: EECA/TRA 2022 survey

There's been a greater focus on encouraging staff to take action



Statistically significant difference:

CLIMATE_ACTION - Which of the following actions has your business taken in order to reduce your impact on climate change?
T2B TAKING REGULAR ACTION
Base: n=519

39

Similarly, there is a need to focus on communicating the actions businesses can take to reduce their emissions.

- Very few business are taking meaningful actions to limit their emissions
- The actions that are being done are those that have the lowest impact on emissions
- A large number perceive that many of the actions all businesses can take are not applicable to their situation

Motivations

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Businesses are mostly driven to act on climate change by external pressure

Table 11
Main reasons that businesses undertook climate change-related actions[1]
(Transition to a Low Emissions Economy)
By size and industry[2][3]
2021

Size / Industry	Experienced the physical impacts of	Participation in government programmes	Demand from management/ board/employ	Pressure from competitors	Demand from investors or shareholders	Demand from customers	Public opinion	To minimise supply chain	To take advantage of opportunities	Potential for litigation	Other	Did not make any changes	Don't know
	Percent												
Total	17	6	26	6	7	26	23	12	10	1	13	15	32

1 These refer to businesses that undertook various climate-change related actions or measures either in response to climate change or for other reasons.
2 The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
3 Business size is defined by rolling mean employment (RME). For more information on RME, see the Data Dictionary in BOS Series Data Collection – DataInfo+
4 Results for the mining and electricity, gas, water, & waste services industries should be treated with caution due to the small numbers of businesses in these categories.

Note: Percentages are based on rounded numbers.
The data collected refers to the last two completed financial years of the business.

Source: Stats NZ

Getting business decision makers to see that there's a benefit of being proactive in reducing emission is important.

— External demand and pressure are the main motivations businesses have rather than internal, intrinsic motivations

Businesses are mostly driven to act on climate change by external pressure

Table 11

Main reasons that businesses undertook climate change-related actions[1]

(Transition to a Low Emissions Economy)

By size and industry[2][3]

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Size / Industry	Experienced the physical impacts of	Participation in government programmes	Demand from management/ board/employ	Pressure from competitors	Demand from investors or shareholders	Demand from customers	Public opinion	To minimise supply chain	To take advantage of opportunities	Potential for litigation	Other	Did not make any changes	Don't know
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Note: Percentages are based on rounded numbers.

The data collected refers to the last two completed financial years of the business.

Source: Stats NZ

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Barriers

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As businesses don't think they need to act, they don't see any major barriers

Table 12
Reasons that stopped businesses from making changes to reduce their greenhouse gases and / or adapt to climate change in the last two years (Transition to a Low Emissions Economy)
By size and industry[1][2]
2021

Size / Industry	Lack of information to support decision-making	Lack of appropriate personnel and / or skills	Lack of management resources	Other Higher Priorities	Too risky	Too costly	Lack of viable technology	Difficultly raising or sourcing finance	Other reason(s)	Nothing has stopped businesses from making changes	Not applicable	Don't know
	Percent											
Total	10	7	14	12	1	20	12	4	3	20	30	13

1. The Business Operations Survey samples businesses with six or more employees. For more information on the businesses included, see BOS Series Data Collection – DataInfo+
2. Business size is defined by rolling mean employment (RME). For more information on RME, see the Data Dictionary in BOS Series Data Collection – DataInfo+
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Note: Percentages are based on rounded numbers.

The data collected refers to the last two completed financial years of the business.

Source: Stats NZ

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Barriers amongst business decision makers will start to reduce once they've been convinced of the need for action.

- A large number of businesses don't think that taking actions to reduce their emissions are applicable to them and therefore don't see any barriers
- Outside of this group, cost is the main perceived barrier to taking action

Summary of Information Known

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Information Area	Depth of Information	Information Gaps
Knowledge	High	None, it is regularly monitored across a range of different aspects
Behaviours	High	Focuses on reported, high-level actions. Needs to be more based on detailed actions taken recently
Motivations	Low	Motivations are relatively high-level and there isn't much depth on knowledge on them. Needs more qualitative work to understand them better
Barriers	Low	Barriers are relatively high-level and there isn't much industry depth on them
Needs	Low	No coverage, in any form, needs to be collected
Sentiment	Low	There's an inability to split business sentiment from general population sentiment, which means it can't be collected
Social Licence	Low	Needs to be assessed
Segmentation	Moderate	Size and Industry provide a practical approach to understanding differences and targeting, so there's limited need for different perspectives

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Information Assessed vs. Behaviour Change Frameworks

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Response to climate change is complex, but ultimately it's about behaviours

Because behaviour is not always in line with beliefs or motivations we have used two frameworks that can acknowledge and account for this. These frameworks allow us to structure the current knowledge and our analysis.

COM-B

A proven behaviour change framework that is simple, yet powerful.

We will use this framework to understand if the information has the ability to influence any of these three behaviour change levers:
- I know how to change
- I can change
- I want to change

REDUCE/RESPOND/RECOVER/READINESS

An extensively used framework grouping the different actions for responding to climate change.

This framework allows us to identify what types of information people know they have access to.

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From a business decision maker perception perspective the COM-B framework shows large information gaps for Opportunity

Behaviour Change Driver	Depth of Information	Information Gaps
Capability	Moderate	Only regularly monitored through one source. Needs more detail on industry- specific capabilities.
Opportunity	Very Low	No information captured.
Motivation	Moderate	Motivations are relatively high-level and there isn't much depth on knowledge on them. Needs more qualitative work to understand them better. Only regularly monitored through one source.

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From a business decision maker perception perspective the Reduce/Respond/Recover/Readiness framework shows very large information gaps

Response Action	Depth of Information	Information Gaps
Reduce	Moderate	There is a high-level understanding of the actions needed to reduce emissions, but there is a lack of detail about industry and size specific actions.
Respond	Very Low	Research to date has only focused on reduction.
Recover	Very Low	
Readiness	Very Low	

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The publicly available information targeted at businesses provides detailed advice across the 4R's framework

Response Action	Depth of Publicly Information Available to Businesses	Information Gaps
Reduce	Very High	Very little for those who are interested in searching.
Respond	Moderate	Awaiting MfE's information portals.
Recover	Moderate	Information in this space requires case by case information, which is difficult to provide freely.
Readiness	Very High	Very little for those who are interested in searching.

The publicly available information covers the 4R's and falls in to two types:

- Detailed 'how to' information from local councils, government agencies, industry bodies, etc.
- High-level guidance from legal firms on a business's legal responsibilities and guides on how to incorporate and respond to the challenges from consultancies

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Local Government Perspectives

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From a formal information point of view, there is little known about how local council representatives view climate change, but the organisations produce plans and guidance on the topic for themselves and others.

The Auditor General audited all local government 2021-2031 long-term plans, with a section devoted to climate change. This document has been summarised here.

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Local councils are moving in the right direction in terms of both mitigating and responding to climate change.

- From the Auditor General's report on local council's 2021-2031 long-term plans:
  - all councils included a disclosure about climate change effects in their long-term plan
  - our auditors did not raise any significant concerns about the climate change assumptions in the 2021-31 long-term plans (but suggested improvements in some instances);
  - our auditors did not draw attention to any climate-related matters or concerns in their audit reports.
- Councils take a fairly standard approach to setting out their climate change assumptions. The climate change assumption often involves a description of the likelihood and impact of climate change, with supporting information about forecast district- or region-specific climate effects. It then sets out possible impacts on council infrastructure, activities, or communities.

Thank you for the opportunity to contribute to this important project.

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