

From Fact to Act: New Zealanders' Beliefs and Actions on Climate Change

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Executive Summary

What do New Zealanders believe about climate change and what actions are they taking to reduce their household emissions? To help answer these questions, researchers from Motu Economic and Public Policy Research and Victoria University of Wellington collaborated with the Sustainable Business Council and Horizon Research Ltd to survey New Zealanders from July to September 2014 about their climate change beliefs and intended actions.

They found that a strong majority of New Zealanders are concerned about climate change and are taking some household emission-reduction actions such as installing low-emission household products, conserving water and reducing their home energy use. Fewer reported intentions to reduce car or air travel or avoid or reduce consumption of meat and dairy products, activities which contribute significantly to New Zealanders' household consumption emissions. Less than half are convinced their actions can make a difference on climate change. Respondents are more likely to take household mitigation actions if they believe climate change is likely to have a big impact on people like them, and less likely to take those actions if they feel powerless to reduce the effects of climate change. There is some evidence that perceived effectiveness of personal actions to reduce climate change and perceived likelihood of climate change impacts on people like oneself act as substitute motivators rather than complementary motivators.

More women than men and more people below age 55 were concerned about the impact of climate change on themselves and society, and believed that their actions can make a difference to reduce climate change and influence others to act. People aged 18-34 were more likely to engage in environmental citizenship activities such as speaking out in conversations with family and friends, voting on environmental grounds and joining environmental demonstrations. If these findings represent a culture shift among younger generations moving into leadership positions, support for effective climate change action could rise on the national agenda.

Introduction

The *Synthesis Report* of the Fifth Assessment Report (AR5) from the Intergovernmental Panel on Climate Change (IPCC 2014) confirms human influence on the climate system and indicates that significant behaviour change to reduce emissions is needed to prevent irreversible, long-term damage from climate change. Individuals can help reduce greenhouse gas emissions through their household actions. The beliefs we hold and the contexts in which we make our decisions can provide the triggers – but also the barriers – to achieving effective climate action (Leining 2014). When designing climate change policies and behaviour-change initiatives, it would be useful to have a better understanding of the relationship between individuals' actions to reduce emissions and their beliefs about the impacts of climate change, their distance from climate change impacts and their ability to make a difference through personal action.

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“...a strong majority of New Zealanders are concerned about climate change and are taking some household emission-reduction actions such as installing low-emission household products, conserving water and reducing their home energy use.”

The survey *New Zealanders' Climate Change Actions and Attitudes* (Horizon Research Ltd 2014) was designed by Catherine Leining and Suzi Kerr at Motu and Taciano Milfont at Victoria University of Wellington to explore New Zealanders' current household actions and beliefs with regard to mitigating climate change. Many of the survey questions were drawn or adapted from other studies. The survey was administered by Horizon Research Ltd in August and September 2014 to 2,246 New Zealanders aged 18+ who are members of the HorizonPoll national online research panel. Results were weighted to reflect the 2013 New Zealand Census of Population and Dwellings. The survey has a statistical margin of error of 2.1%. The survey was supported by the Sustainable Business Council (<http://www.sbc.org.nz>).

The survey invited responses on the following topics:

- Beliefs about the impacts of climate change
- Beliefs about the relative significance of climate change as a challenge to society, both globally and in New Zealand
- Beliefs that climate change is likely to affect both respondents personally and society in general (psychological distance)
- Beliefs that respondents' own actions can make a difference to reduce climate change (self-efficacy)
- Intended household actions that reduce emissions
- Triggers, barriers and motivations for taking those actions
- Intentions to engage in "environmental citizenship" activities.

This paper presents the results of the 2014 survey together with some preliminary high-level analysis by Motu researchers of correlations between actions and beliefs. It also references the findings of other recent surveys on New Zealanders' climate change beliefs; however, most of those surveys use different question sets (e.g. TNS Conversa and NZIER (2008), Stuart (2010), Horizon Research Ltd (2012), Hughey et al. (2013) and Roy Morgan Research Ltd. (2015)). The 2014 survey has some similarities in objective to that taken in a survey of nearly 200 residents in the Greater Wellington region by Aitken et al. (2011), but the analytical approach applied by the authors is different. Across these studies, there is enough alignment to permit joint consideration, if not comparison, of results.

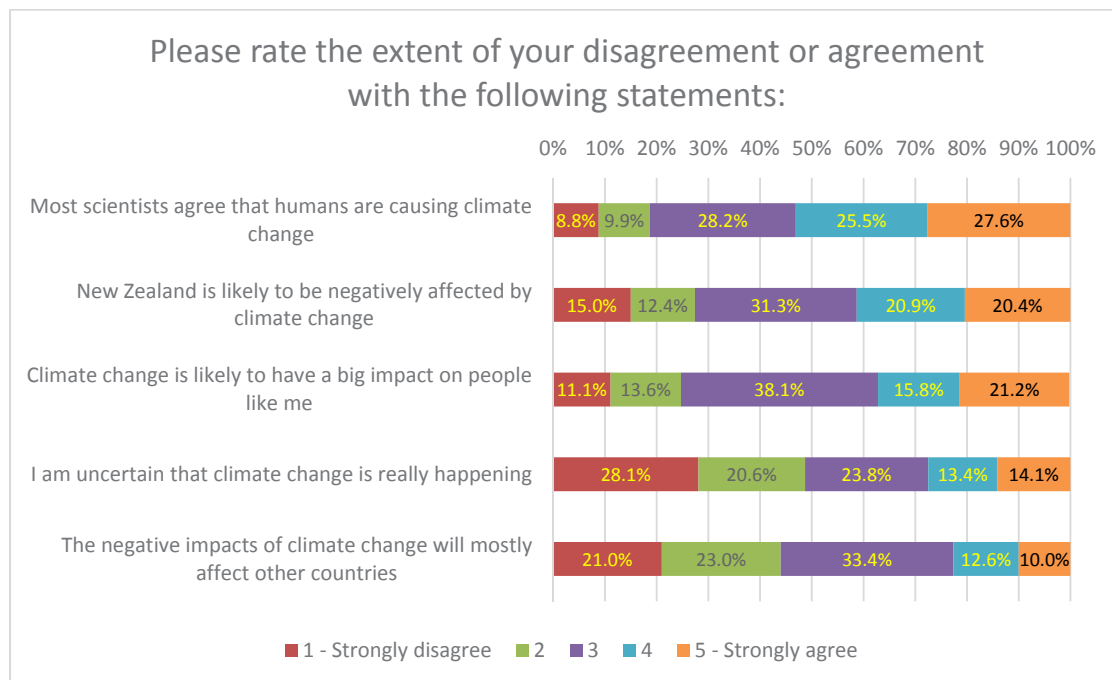
Climate change beliefs: Impacts

The survey included a series of questions on climate change beliefs developed by Spence et al. (2012). It found that a majority of individuals (53%) agree that "Most scientists believe that humans are causing climate change." However, a significant minority of respondents (19%) still disagree with this statement and 28% are undecided. About 41% agree that New Zealand is likely to be negatively affected by climate change (31% are undecided and 27% disagree), and 37% agree that climate change is likely to have a big impact on people like them (38% are undecided and 25% disagree).

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Less than half of New Zealanders (49%) feel certain that climate change is really happening (24% are undecided and 28% disagree). (See Figure 1.)

Figure 1. Climate change beliefs



Source: Horizon Research Ltd (2014)

For perspective, these findings can be considered alongside those of other surveys which used different question sets.

- In surveys of similar scale and methodology, Horizon Research Ltd (2012) showed changes in New Zealanders’ views on climate change issues between 2008 and 2012. In 2012, nearly 53% of New Zealanders regarded climate change as an urgent or immediate problem, compared to 75% in 2008. In 2012, a strong majority supported more action on climate change by business (68%), citizens themselves (64%), Parliament (64%), the Prime Minister (61%), all government officials (63%) and all political parties (54%).
- In a survey of nearly 200 Wellingtonians by Aitken et al. (2011), participants were asked to provide a rating for a series of questions. For the question “To what extent do you believe human activity is contributing to climate change?” the mean response was 3.95 on a scale of 1-5 with 5 representing “a lot.” For the question “How severe do you consider the problem of climate change?” the mean response was 3.83 on a scale of 1-5 with 5 representing “a huge problem.”
- In a 2010 survey of 503 respondents by Stuart (2010), 47% of respondents identified most with the statement, “There’s evidence to show the world is experiencing climate change and it is certainly a problem. There seems to be clear proof that this is caused by human activity.” This compares to 33% who identified with the statement “There’s evidence to show the world is experiencing

climate change and it is certainly a problem. However there seems to be no clear proof that this is caused by human activity,” and 20% who identified with the statement “The world climate is having the same ups and downs that it always has. There’s no real evidence that we have a particular problem.”

- In a 2008 survey of 1,003 New Zealanders by TNS Conversa and NZIER (2008), 33% reported strong belief that climate change is happening and 38% reported strong belief that humans and animals have a direct impact on climate change.

For broader international context, peer-reviewed studies show that the vast majority (97%) of climate scientists confirm the reality of human-influenced climate change (Anderegg 2010; Doran and Zimmerman 2009; Oreskes 2004). This gulf between scientific and public belief remains a barrier to broad public support for ambitious action to reduce emissions.

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Climate change beliefs: Relative importance

The 2014 survey explored how individuals perceive climate change as a problem relative to other societal issues. Applying the approach used in a 2010 study by Stanford University researchers (Yeager et al. 2010), the survey invited New Zealanders to identify the most important problem facing the world in the future if nothing is done to address it. For analysis, responses were grouped by theme. A quarter of respondents nominated problems relating to global warming/climate change/greenhouse gases/the environment/water. This was by far the most pressing problem category, with war (12%), poverty issues (9%), overpopulation (5%) and economic issues (4%) all gaining less than half as many responses. However, when asked about the most important problem facing New Zealand today, using a question adapted from Dunlap et al. (1993), 14% of respondents identified poverty and 8% identified employment. Both climate change/environment/pollution and income/wages/cost of living were nominated by about 7% each.

Other recent New Zealand surveys show similar findings on the relative importance of climate change issues.

- An August 2014, a telephone survey of about 1,000 New Zealanders aged 14+ conducted by Roy Morgan Research Ltd (2015) found that 6% identified the category of “environmental issues” as the most important problem facing New Zealand, and 2% specified climate change/warming. When asked about the most important problem facing the world, 11% identified the broad category of “environmental issues” and 5% specified sub-category of climate change/global warming.
- In a Horizon Research Ltd survey of 2200 New Zealanders conducted in 2013 (Hughey, Kerr, and Cullen 2013), global warming/climate change/ozone was identified as the single most important issue facing the world by 21% of respondents, which was the top ranking. In contrast, fewer than 10% identified that issue grouping as the most important issue facing New Zealand.

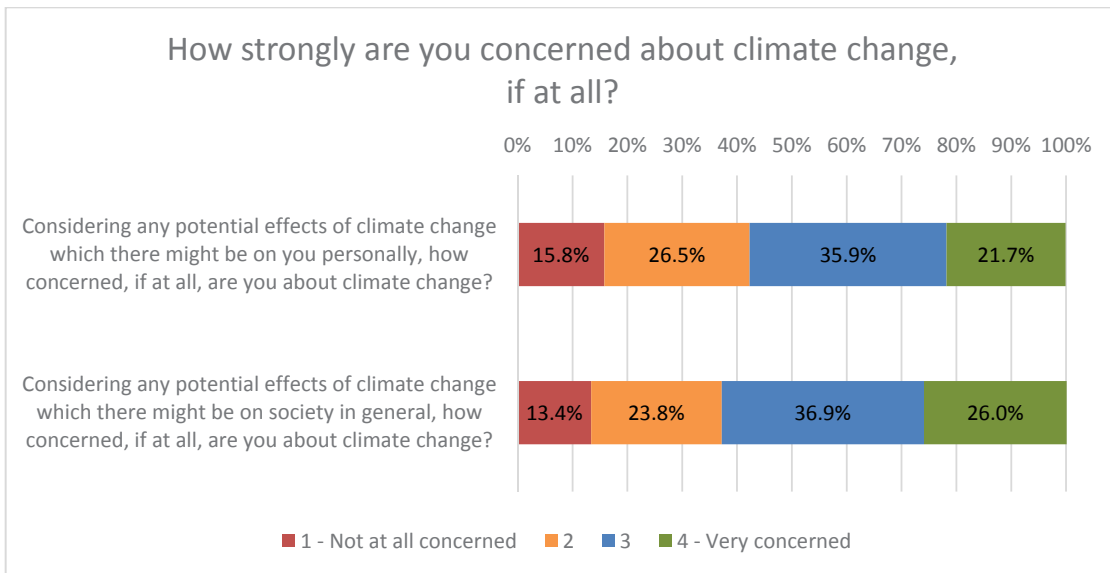
- Stuart (2010) invited 503 respondents to rate the seriousness of climate change on a scale of 1-10. The mean response was 5.7, and nearly 16% assigned a rating of 9 or 10.

These responses raise interesting questions. Do individuals perceive climate change as a more serious problem for the future than the present? Is climate change viewed as more of an issue for the world than for New Zealand? Further research on these questions may provide insight into the barriers to significant mitigation action by New Zealanders.

Psychological distance from climate change impacts

Communicating scientific and economic information about global climate change issues and solutions, while important, may not be sufficient to shift individual behaviour. “Psychological distance” – defined as whether individuals perceive that climate change will impact themselves and those around them – has been identified as a factor influencing individual action. For example, Milfont et al. (2014) found that exposure to, or awareness of, the personal risks of climate change increases one’s concern and/or willingness to act. The 2014 Horizon Research survey included questions on psychological distance developed by Spence et al. (2012). A clear majority of respondents were concerned about the effects of climate change on both themselves (58%) and society in general (63%). (See Figure 2.)

Figure 2. Climate change concern



Source: Horizon Research Ltd (2014)

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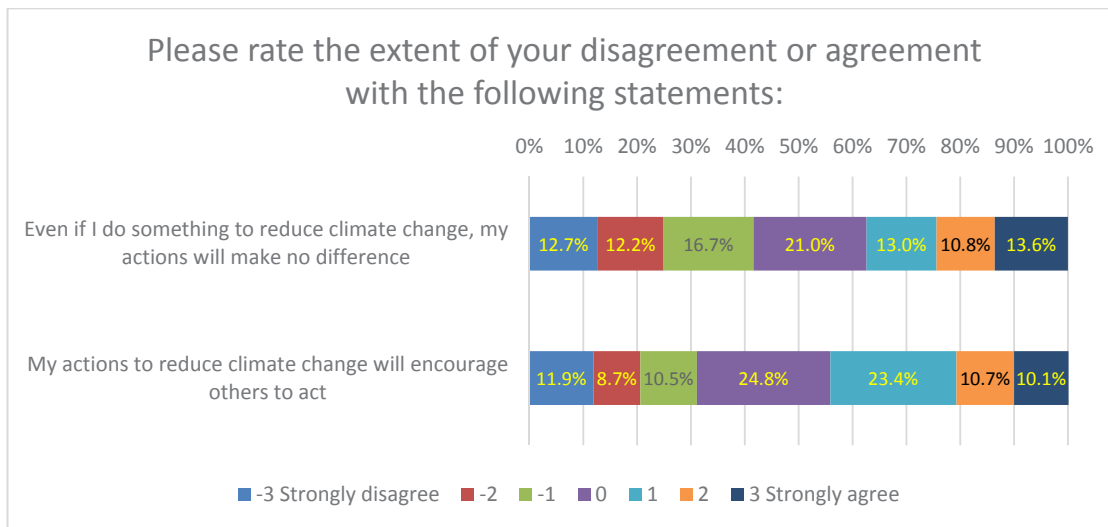
Personal effectiveness in responding to climate change

Another driver of mitigation action is the belief that one’s actions can make a difference, or self-efficacy. The survey included questions on self-efficacy drawn from

Milfont (2012). When asked about the statement “Even if I do something to mitigate climate change, my actions would make no difference”, respondents were nearly split: 37% agreed, compared with 42% who disagreed. A significant minority (21%) gave no opinion either way. (See Figure 3.)

Respondents were more inclined to believe that their climate actions would influence those around them: 44% agreed with the statement “My actions to reduce climate change will encourage others to act”, with 31% disagreeing. Again, a significant minority (25%) offered no opinion either way. (See Figure 3.) Personal commitment to change will prove a challenge if people doubt their actions can make a difference. It is important for New Zealanders to understand where they have the greatest capacity to make a difference on climate change, be it as consumers, citizens, activists or organisational members.

Figure 3. Effectiveness beliefs



Source: Horizon Research Ltd (2014)

Of course, the actions people take to reduce emissions are not driven solely by their beliefs about climate change. Contextual drivers such as costs, technologies and ingrained habits, as well as government policies, regulations and standards, also play a large role in behaviour change. The remainder of the survey examined New Zealanders’ intentions to take actions that reduce their household emissions, the barriers they perceive to taking action, and the correlations between climate change beliefs and intended behaviour.

Household actions

Drawing on work by Stern et al. (1999), McDonald et al. (2013), and Whitmarsh and O’Neill (2010), the survey presented nine key household actions individuals can take which mitigate climate change, and asked respondents how likely they were to engage in them in the next 12 months. Answers ranged from 1 (not likely at all) to 5 (highly likely). A strong majority of Horizon’s respondents were at least somewhat

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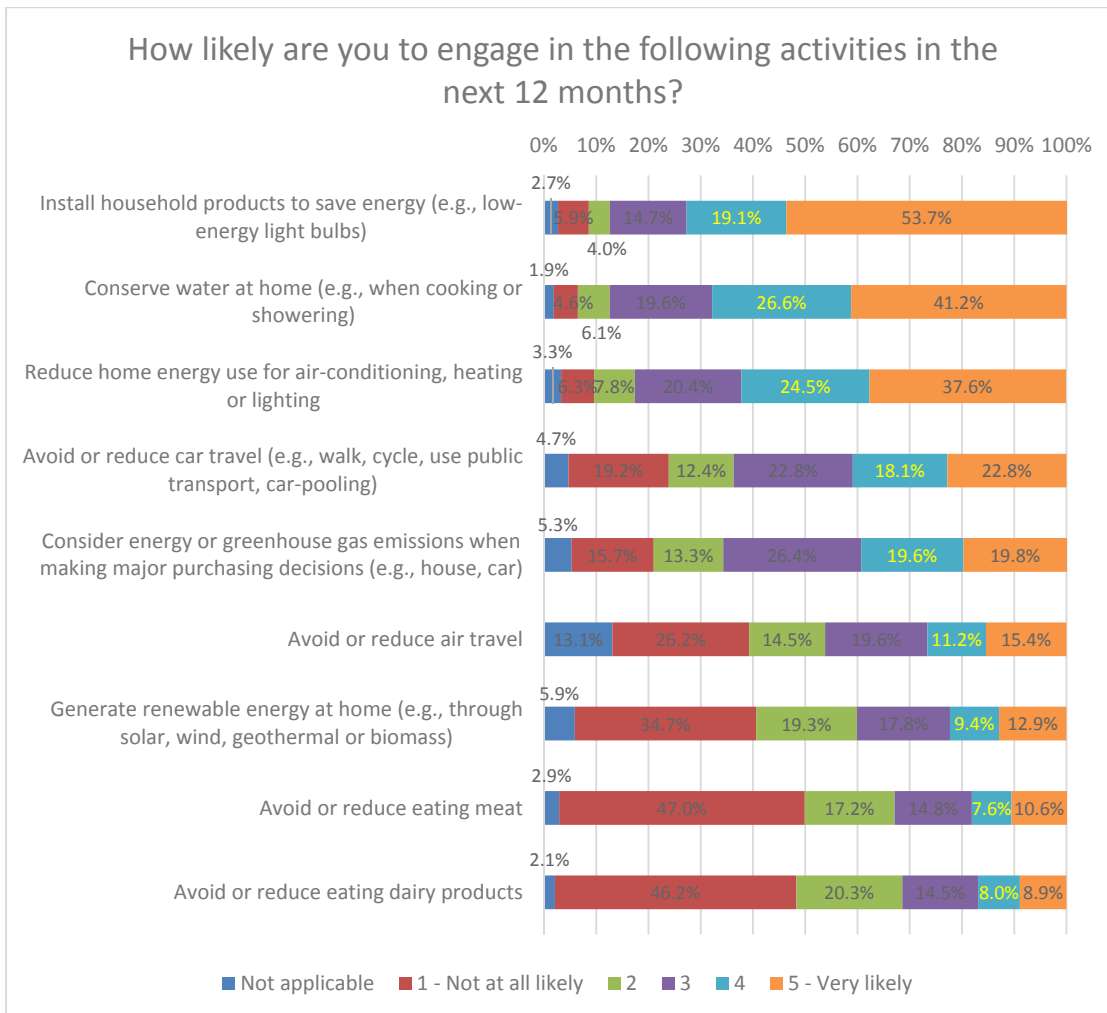
“Personal commitment to change will prove a challenge if people doubt their actions can make a difference. It is important for New Zealanders to understand where they have the greatest capacity to make a difference on climate change, be it as consumers, citizens, activists or organisational members.”

likely to engage in household actions such as installing products like energy-efficient light bulbs (73%), conserving water (69%), and reducing air-conditioning, heating or lighting use (62%) over the next 12 months. These actions demand a relatively low commitment of resources and are easy ways to reduce home energy use and emissions.

Other types of actions proved less popular. Only 39% of respondents planned to take energy or emissions into account when making a major purchasing decision. When asked about generating renewable energy at home through solar, wind, geothermal or biomass measures, 22% of respondents were at least somewhat likely to act over the next 12 months. Only 41% and 27% of Horizon’s respondents, respectively, said they were at least somewhat likely to avoid or reduce car or air travel over the next 12 months, and fewer were likely to avoid or reduce meat or dairy consumption (18% and 17%, respectively). The more detailed results are reported below in Figure 4.

“A strong majority of Horizon’s respondents were at least somewhat likely to engage in household actions such as installing products like energy-efficient light bulbs, conserving water, and reducing air-conditioning, heating or lighting use over the next 12 months.”

Figure 4. Intended household actions that reduce emissions



Source: Horizon Research Ltd (2014)

While easier, low-impact actions have value, they may not make a transformational difference on climate change unless they are widely adopted and build momentum for greater action. In fact, Gifford (2011) identifies the potential for climate change tokenism: satisfying our conscience with actions that are convenient and low impact in place of more effective actions that require greater effort.

Motu's research on New Zealanders' household consumption emissions provides further context for evaluating these findings. Building on a model developed by Romanos et al. (2014), Allan et al. (forthcoming) calculated the embodied greenhouse gas emissions associated with household-level expenditure. For the average New Zealand household in 2012/13, food (including both energy and biological emissions) accounted for the largest share of emissions at 31%, followed by transport (including domestic and international air travel) at 25% and household utilities at 21%. The 2014 survey suggests that New Zealanders may be failing to take up mitigation opportunities from changes to transport and diet, the two largest contributors to a household's emission footprint on a consumption basis and possible generators of health and other benefits. It would be interesting to explore possible drivers of these survey results, such as a lack of information about the combined climate change and other benefits of making changes to transport and diet, or a lack of motivation to make lifestyle changes in those areas.

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Relationship between household actions and beliefs

To explore the relationship between climate change actions and beliefs, Motu researchers did preliminary regression analysis of respondents' intended household actions against their responses to two climate change belief statements:

- “Climate change is likely to have an impact on people like me” (a reflection of perceived risk)
- “Even if I do something to reduce climate change, my actions will make no difference” (a reflection of perceived self-efficacy, or powerlessness).

For ease of analysis, the survey's household actions were organised into four categories:

- Home energy-reduction actions (e.g. installing energy-saving household products, reducing home energy use, conserving water and considering emissions when making major purchasing decisions)
- Generating renewable energy at home
- Avoiding or reducing car or air travel
- Changing diet.

The methodology and findings are detailed separately by White (2015).

Statistically, respondents with stronger beliefs that climate change is likely to have a big impact on them are more likely to take household mitigation actions, and respondents who feel more powerless to reduce climate change are less likely to take

such actions. There is some evidence that perceived effectiveness of personal actions to reduce climate change and perceived likelihood of climate change impacts on people like oneself act as substitute motivators rather than complementary motivators in people's decision to take some types of household mitigation actions. In some cases, if people are strongly motivated to act by one of these beliefs, then the other appears to have less influence. These findings, while based on simple analysis, reinforce findings in other studies about the importance of personal beliefs in driving climate change action. Further research would be needed to fully interpret the data and move beyond correlation to causation.

Aitken et al. (2011) presented similar findings from regressions of climate change actions against beliefs based on a research sample of nearly 200 Wellingtonians. Respondents were asked about specific climate change beliefs and then rated the influence of different factors affecting their decisions to take action. With regard to changing actions, at least partly, due to consideration of climate change, the authors found that two composite variables were the strongest predictors:

- Risk and human influence (a positive – and the strongest – predictor encompassing the perceptions of the risk and severity of climate change, and human influence on climate change)
- Commons dilemma (a negative predictor encompassing the perceptions that others will not change even if the respondent does, it is unfair to bear the cost of change while others do not, and other countries or people are not currently taking equivalent action).

Another variable, powerlessness, was not a predictor of taking action, but was found to be highly correlated with the commons dilemma variable, reflecting possible conflation of the two. The authors also did regression analysis to test the relative influence of climate change as a factor in changing actions against perception factors. They found that risk and human influence was again the strongest predictor (positive), followed by powerlessness (negative).

Triggers, barriers and motivations for taking action

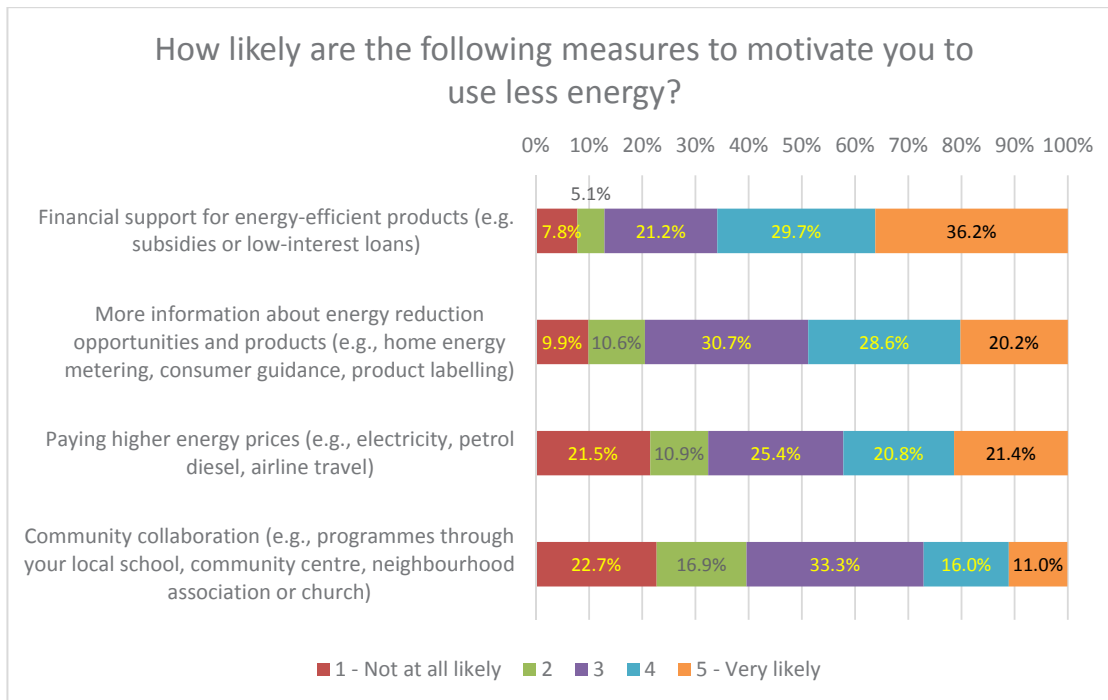
Respondents were asked open-ended questions about personal triggers and barriers for reducing emissions. These questions were new but were informed by McKenzie-Mohr (2013). Cost (including cost savings) was the predominant factor, with about 15% of respondents citing cost as a trigger for action and about 21% citing cost as a barrier to action. Very small percentages cited triggers such as knowledge (6%), “the future” (2%), practicality (2%) or climate change/environment (2%), and barriers such as other people (2%), transport requirements (2%) and rental accommodation (<1%). A significant portion of participants did not answer the questions on triggers (19%) and barriers (23%); of those who did, some expressed climate change scepticism, denial or resignation.

In response to questions on motivating factors developed by the research team on specific types of emission-reduction measures, financial support appeared to be the most influential motivator for energy-efficient products and renewable generation at

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home (66% and 59%), followed by information provision (49% and 37%), higher energy prices (42% and 30%) and community collaboration (27% and 26%). It is interesting that financial support was rated as more influential than higher energy prices. (See Figures 5 and 6.). This is consistent with findings in other studies which have observed greater sensitivity to up-front costs than annual savings in decisions to invest in energy efficiency (e.g. Allan et al 2014 and Anderson and Newell 2004).

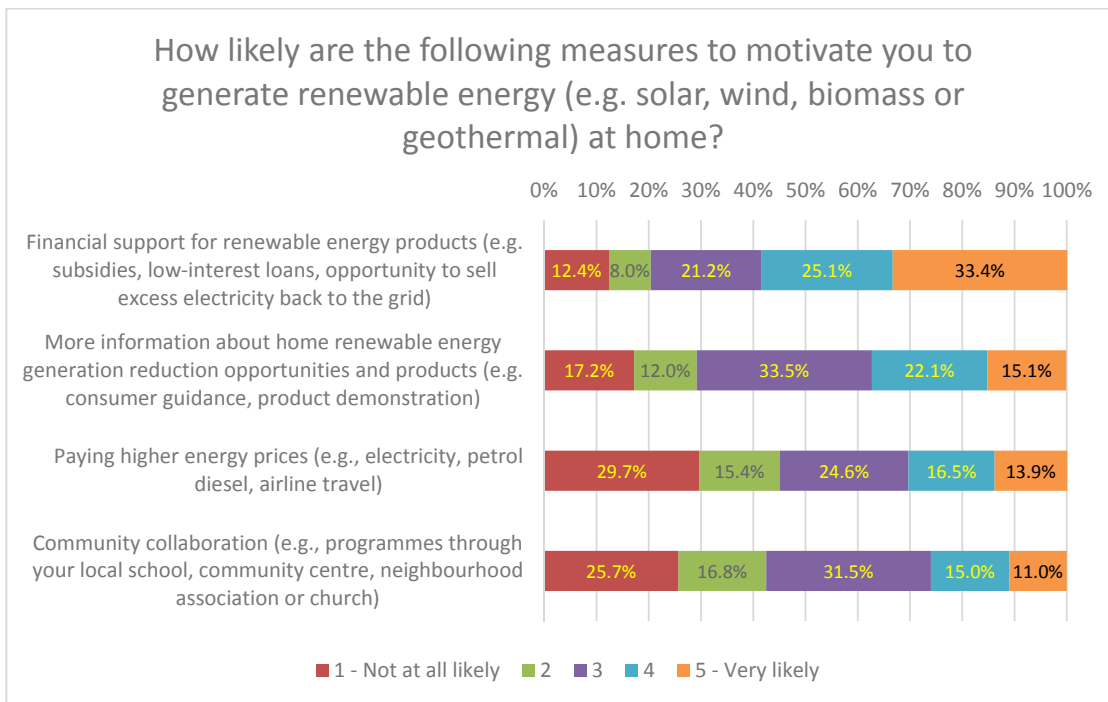
Figure 5. Motivations to reduce energy use



“...financial support appeared to be the most influential motivator for energy-efficient products and renewable generation at home, followed by information provision, higher energy prices and community collaboration.”

Source: Horizon Research Ltd (2014)

Figure 6. Motivations to generate renewable energy at home



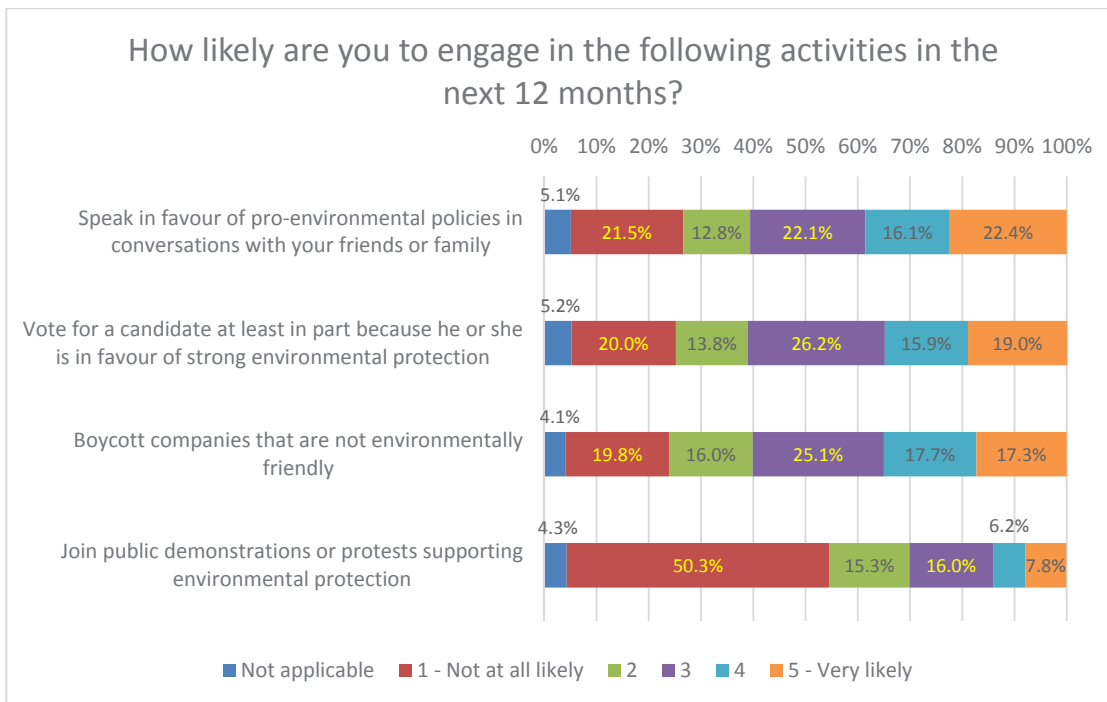
Source: Horizon Research Ltd (2014)

Environmental citizenship

Individuals can have a highly significant impact on emissions through their actions as environmental citizens to influence government policy development. Applying questions adapted from Stern et al. (1999), the survey examined four dimensions of environmental citizenship, and found that New Zealanders' intentions to engage in such actions diminish as the actions become more public. Low percentages indicated they were likely to participate in the following actions: speaking in favour of pro-environmental policies (39%), voting for a candidate or boycotting companies on environmental grounds (both 35%), or joining public demonstrations supporting environmental protection (14%). (See Figure 7.)

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Figure 7. Environmental citizenship



Source: Horizon Research Ltd (2014)

The gender and age effects

Clear gender effects were evident in some survey results. More women than men reported certainty that climate change is really happening (51% versus 46%), concern about the impact of climate change on themselves (66% versus 50%) and society (71% versus 55%), and belief that their actions can make a difference (48% versus 35%) and influence others to act (50% versus 39%). Women were slightly more likely than men to vote for a candidate (38% versus 32%) or boycott companies on environmental grounds (38% versus 33%). Women were also more likely than men to take all of the surveyed household actions that reduce emissions. (See Annex.)

Clear age effects were also evident in some survey results. People below age 55 were more likely to believe that there is a scientific consensus on climate change, New Zealand is likely to be negatively affected by climate change, and climate change is likely to have a big impact on people like them. They also generally showed higher levels of concern about climate change and had a greater belief in their ability to help. People aged 18-24 were dramatically more likely to believe that there is a scientific consensus and New Zealand is likely to be negatively affected by climate change. Those aged 18–24 and 25–34 were more likely than the average to engage in environmental citizenship activities such as speaking in favour of pro-environmental policies in conversations with friends or family, voting for a candidate who favours environmental protection and engaging in public demonstrations.

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“Those aged 18–24 and 25–34 were more likely than the average to engage in environmental citizenship activities...”

However, both groups were less likely than average to boycott companies that are not environmentally friendly. With regard to household actions, the age group 18–24 was the most likely to consider energy or greenhouse gas emissions when making major purchasing decisions, avoid or reduce car and air travel, and avoid or reduce eating meat and dairy products. That group was the least likely to generate renewable energy at home.

The Annex presents survey results for 22 selected questions by gender and age group. Longitudinal studies would be needed to show if these trends will be retained by the rising generations over time.

Conclusion

New Zealanders hold wide-ranging perceptions about climate change, the concern they have for its effects, and the potential they have to make a difference. Such variances may help explain in part why we are not yet seeing the significant and collective behaviour changes that will be needed to limit dangerous climate change. While many New Zealanders intend to take household actions that reduce energy use and greenhouse gas emissions, concerns about climate change currently are not the predominant driver for most. Furthermore, many New Zealanders appear disinclined to participate in more public dimensions of environmental citizenship that in general could influence climate policy development. Those holding stronger beliefs that climate change is likely to have a big impact on people like them are more likely to take household emission reduction actions, while those who feel more powerless to reduce climate change are less likely to do so. However, given the study's constraints, we cannot comment meaningfully on the strength of these relationships or on the likelihood that intention will lead to actual action. Importantly, people can take useful mitigation actions for a variety of reasons in addition to concern about climate change. It is clear that cost is a significant consideration and that the provision of financial incentives and information can be particularly useful motivators.

Shifting household behaviour could usefully support the transition toward a zero-net-emission economy. These findings suggest that initiatives designed to encourage transformational levels of mitigation by New Zealanders may need to convince people that climate change matters to them personally, convince people that their actions can make a difference to reduce climate change as part of collective effort, and/or trigger other motivations (such as cost savings, improved quality of life or other co-benefits) to achieve desired outcomes. The findings also suggest that information about climate change impacts and solutions should take into account and cater for differences in perspective between men and women and among people of different ages. If these findings represent a culture shift among younger generations moving into leadership positions, support for effective climate change action could rise on the national agenda.

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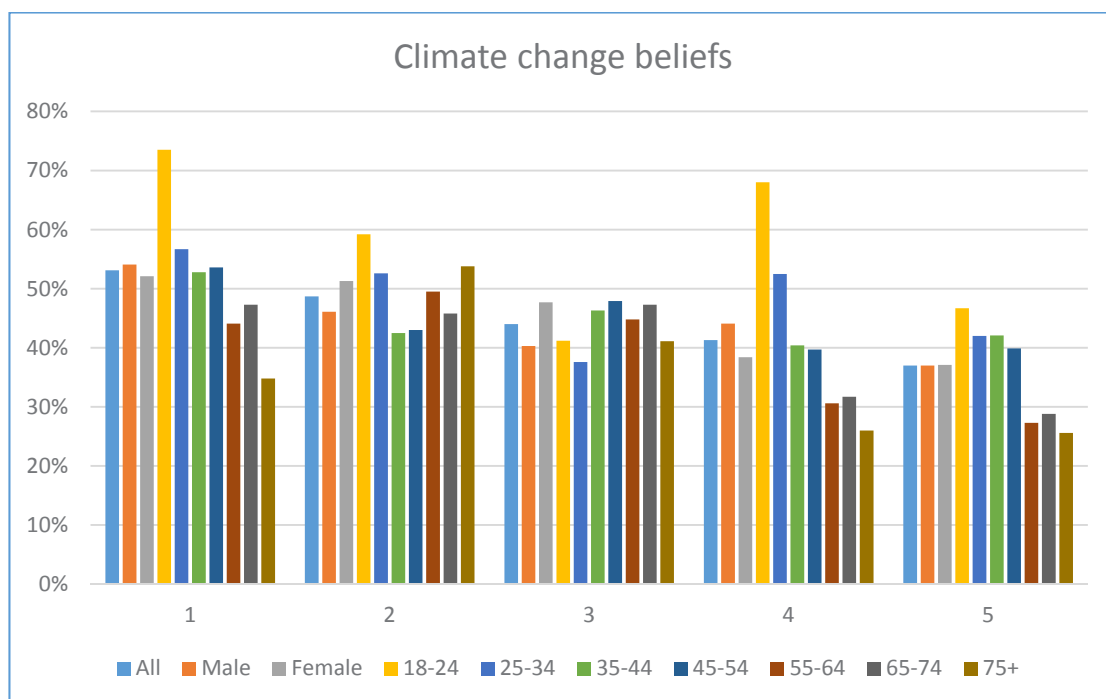
Annex: Selected results from *New Zealanders' Climate Change Actions and Attitudes* survey

The graphs and table below present survey results for 22 selected questions by gender and age group. The questions are grouped into five categories: climate change beliefs, climate change concern, effectiveness beliefs, environmental citizenship, and intended household actions that reduce emissions.

Questions: Climate change beliefs

1. Most scientists agree that humans are causing climate change. (agree/strongly agree)
2. I am uncertain that climate change is really happening. (disagree/strongly disagree)
3. The negative impacts of climate change will mostly affect other countries. (disagree/strongly disagree)
4. New Zealand is likely to be negatively affected by climate change. (agree/strongly agree)
5. Climate change is likely to have a big impact on people like me. (agree/strongly agree)

Figure 8. Climate change beliefs by gender and age

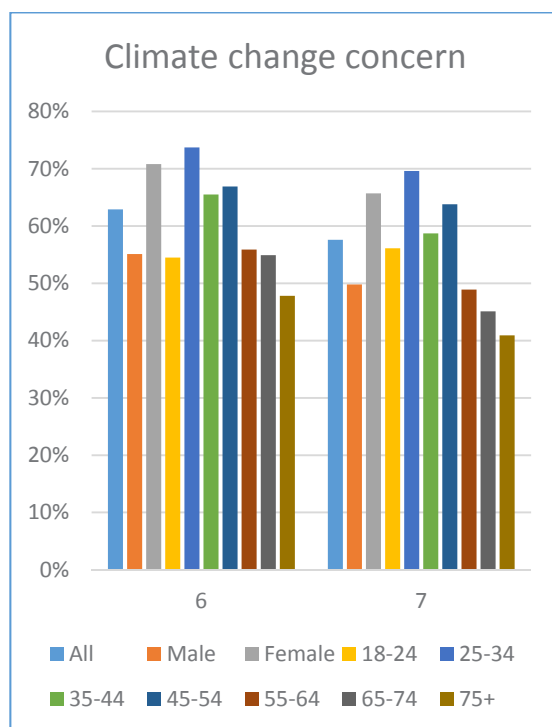


Questions: Climate change concern

6. Considering any potential effects of climate change which there might be on society in general, how concerned, if at all, are you about climate change? (concerned, very concerned)

7. Considering any potential effects of climate change which there might be on you personally, how concerned, if at all, are you about climate change? (concerned/very concerned)

Figure 9. Climate change concern by gender and age

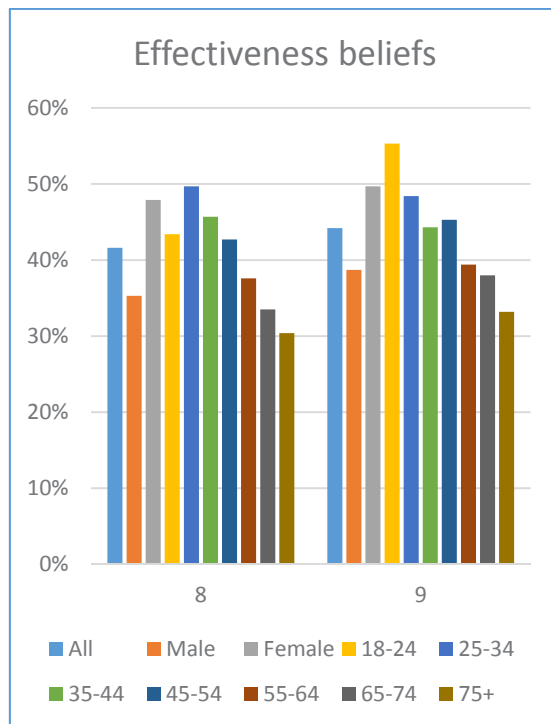


Questions: Effectiveness beliefs

8. Even if I do something to reduce climate change, my actions will make no difference. (disagree/strongly disagree)

9. My actions to reduce climate change will encourage others to act. (agree/strongly agree)

Figure 10. Effectiveness beliefs by gender and age



Questions: Environmental citizenship

In the next 12 months, how likely are you to...

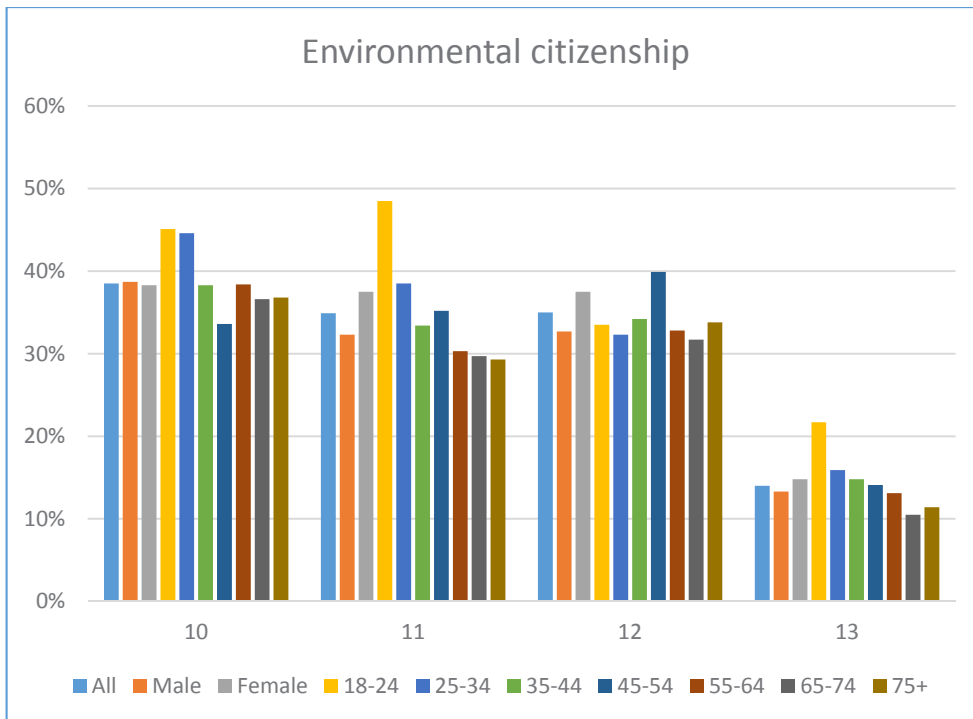
10. Speak in favour of pro-environmental policies in conversations with your friends or family? (likely/very likely)

11. Vote for a candidate at least in part because he or she is in favour of strong environmental protection? (likely/very likely)

12. Boycott companies that are not environmentally friendly? (likely/very likely)

13. Join public demonstrations or protests supporting environmental protection? (likely/very likely)

Figure 11. Environmental citizenship by gender and age



Questions: Intended household actions that reduce emissions

In the next 12 months, how likely are you to...

14. Install household products to save energy (e.g., low-energy light bulbs)? (likely/very likely)
15. Conserve water at home (e.g., when cooking or showering)? (likely/very likely)
16. Reduce home energy use for air-conditioning, heating or lighting? (likely/very likely)
17. Generate renewable energy at home (e.g., through solar, wind, geothermal or biomass)? (likely/very likely)
18. Consider energy or greenhouse gas emissions when making major purchasing decisions (e.g., house, car)? (likely/very likely)
19. Avoid or reduce car travel (e.g., walk, cycle, use public transport, car-pooling)? (likely/very likely)
20. Avoid or reduce air travel? (likely/very likely)
21. Avoid or reduce eating meat? (likely/very likely)
22. Avoid or reduce eating dairy products? (likely/very likely)

Figure 12. Intended household actions that reduce emissions

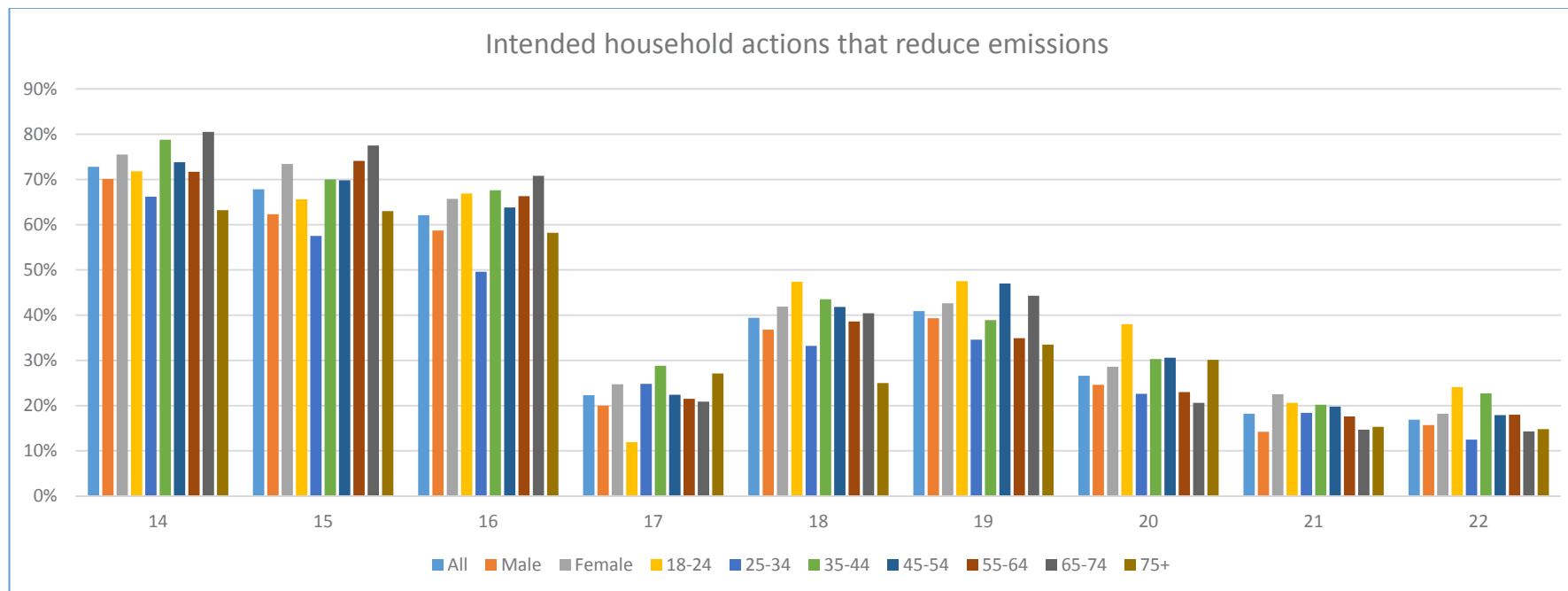


Table 1: Demonstration of gender and age effects: survey data

Questions by respondent's gender and age group		All	Male	Female	18-24	25-34	35-44	45-54	55-64	65-74	75+
Climate change beliefs											
1	Most scientists agree that humans are causing climate change. (agree/strongly agree)	53%	54%	52%	74%	57%	53%	54%	44%	47%	35%
2	I am uncertain that climate change is really happening. (disagree/strongly disagree)	49%	46%	51%	59%	53%	43%	43%	50%	46%	54%
3	The negative impacts of climate change will mostly affect other countries (disagree/strongly disagree)	44%	40%	48%	41%	38%	46%	48%	45%	47%	41%
4	New Zealand is likely to be negatively affected by climate change. (agree/strongly agree)	41%	44%	38%	68%	53%	40%	40%	31%	32%	26%
5	Climate change is likely to have a big impact on people like me. (agree/strongly agree)	37%	37%	37%	47%	42%	42%	40%	27%	29%	26%
Climate change concern											
6	Considering any potential effects of climate change which there might be on society in general, how concerned, if at all, are you about climate change? (concerned, very concerned)	63%	55%	71%	55%	74%	66%	67%	56%	55%	48%
7	Considering any potential effects of climate change which there might be on you personally, how concerned, if at all, are you about climate change? (concerned/very concerned)	58%	50%	66%	56%	70%	59%	64%	49%	45%	41%
Effectiveness beliefs											
8	Even if I do something to reduce climate change, my actions will make no difference. (disagree/strongly disagree)	42%	35%	48%	43%	50%	46%	43%	38%	34%	30%
9	My actions to reduce climate change will encourage others to act. (agree/strongly agree)	44%	39%	50%	55%	48%	44%	45%	39%	38%	33%

Questions by respondent's gender and age group		All	Male	Female	18-24	25-34	35-44	45-54	55-64	65-74	75+
Environmental citizenship											
In the next 12 months, how likely are you to...											
10	Speak in favour of pro-environmental policies in conversations with your friends or family? (likely/very likely)	39%	39%	38%	45%	45%	38%	34%	38%	37%	37%
11	Vote for a candidate at least in part because he or she is in favour of strong environmental protection? (likely/very likely)	35%	32%	38%	49%	39%	33%	35%	30%	30%	29%
12	Boycott companies that are not environmentally friendly? (likely/very likely)	35%	33%	38%	34%	32%	34%	40%	33%	32%	34%
13	Join public demonstrations or protests supporting environmental protection? (likely/very likely)	14%	13%	15%	22%	16%	15%	14%	13%	11%	11%
Intended household actions that reduce emissions											
In the next 12 months, how likely are you to...											
14	Install household products to save energy (e.g., low-energy light bulbs) (likely/very likely)	73%	70%	76%	72%	66%	79%	74%	72%	81%	63%
15	Conserve water at home (e.g., when cooking or showering) (likely/very likely)	68%	62%	73%	66%	58%	70%	70%	74%	78%	63%
16	Reduce home energy use for air-conditioning, heating or lighting (likely/very likely)	62%	59%	66%	67%	50%	68%	64%	66%	71%	58%
17	Generate renewable energy at home (e.g., through solar, wind, geothermal or biomass) (likely/very likely)	22%	20%	25%	12%	25%	29%	22%	22%	21%	27%
18	Consider energy or greenhouse gas emissions when making major purchasing decisions (e.g., house, car) (likely/very likely)	39%	37%	42%	47%	33%	44%	42%	39%	40%	25%
19	Avoid or reduce car travel (e.g., walk, cycle, use public transport, car-pooling) (likely/very likely)	41%	39%	43%	48%	35%	39%	47%	35%	44%	34%

Questions by respondent's gender and age group		All	Male	Female	18-24	25-34	35-44	45-54	55-64	65-74	75+
Intended household actions that reduce emissions											
In the next 12 months, how likely are you to...											
20	Avoid or reduce air travel (likely/very likely)	27%	25%	29%	38%	23%	30%	31%	23%	21%	30%
21	Avoid or reduce eating meat (likely/very likely)	18%	14%	23%	21%	18%	20%	20%	18%	15%	15%
22	Avoid or reduce eating dairy products (likely/very likely)	17%	16%	18%	24%	13%	23%	18%	18%	14%	15%