CENTRAL OTAGO RESIDENT OPINION STUDY

Lifestyle, climate change, infrastructure and growth, tourism, and air travel and airports.

Report 1 of 3: Central Otago Residents' Opinions





CONTENTS

Authors	3
NTRODUCTION	4
Reporting the results	6
Background	7
Methods	9
Significance	10
RESULTS	11
Central Otago Lifestyle	12
Climate Change	14
nfrastructure and growth	17
ourism	21
Air travel and airports	23
DISCUSSION	26
CONCLUSION	28
ootnotes	29
References	30
Appendix	31



THE AUTHORS





Distinguished Professor Robert McLachlan FRSNZ. School of Mathematical and Computational Sciences, Massey University.

My background in large-scale simulations in scientific computing has led to an interest in a broad range of environmental issues including the limits to growth (I'm a member of the Planetary Limits Academic Network) and climate change policy. My research on the aviation industry focuses on the drivers of aviation growth, the role of technological solutions, and the feasibility of the possible pathways to reduce aviation emissions in line with New Zealand's international agreements. My environmental work is collected at the website <u>planetaryecology.org</u>.







Distinguished Professor James Higham. Professor of Sustainable Tourism and Co-Director, Climate Change Action Cluster, Griffith University, Brisbane and Honorary Professor, University of Otago.

My research addresses two broad themes 'tourism and global environmental change' and 'sport and contemporary mobility'. My research on the field of Tourism and global environmental change is anchored within the geographic concept of scale. Globally, my research explores aspects of sustainable tourism in relation to anthropogenic climate change, ecosystems and biodiversity. At the national/regional scale my interests focus on wildlife management, biodiversity, marine conservation and protected area policy and planning. I enjoy building research collaborations that bring together numerous professionals. My work is summarised at <u>jameshigham.com</u>.



Professor James Renwick. Professor of Physical Geography, School of Geography, Environment and Earth Sciences, Victoria University of Wellington.

I am fascinated by the general circulation of the atmosphere – how it transports energy and momentum and what it does to achieve this. In particular I am interested in how heating in the tropics is communicated to higher latitudes by the excitation of large-scale waves and how this affects the storm tracks and jet streams. I am also involved with climate prediction work, from next season to the end of the century and beyond. I have been involved with the Intergovernmental Panel on Climate Change process since the early 2000s, and I speak regularly to the media on climate change issues. My profile and work is here.



This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researchers named in this document are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researchers, please contact the Research Ethics Office, email humanethics@massey.ac.nz

Distinguished Professor Robert McLachlan is a Fellow of the Royal Society of New Zealand. His public commentary on environment is available at https://planetaryecology.org. Distinguished Professor James Higham is the Founding Director of the Otago Tourism Policy School. He publishes weekly podcasts on sustainable tourism at https://jameshigham.com/pod/. Professor James Renwick has worked with the Intergovernmental Panel on Climate Change since the early 2000 and serves the New Zealand government on the Climate Change Commission. All three are members of Informed Leaders https://informedleaders.com



The region that would be served by the airport has a small but rapidly growing population, and receives a very large and also rapidly growing number of tourists. Together these have led to widely reported issues including housing affordability, traffic congestion, infrastructure, services, governance, and the changing character of the region and its communities – all issues that are closely connected to the question of the proposed airport.

The airport proposal is based on modelling that forecasts a high growth future for the region, which is outlined in a document published by Christchurch Airport in August 2023. Christchurch Airport recognises Central Otago as a "thriving region". It assumes that growth in passenger movements at Queenstown International Airport (ZQN) to be limited to 2.5m per annum, and models 4.3m per annum of "unmet demand" (beyond ZQN's assumed capacity) by 2050 in the absence of increased airport capacity. Christchurch Airport executives have also indicated that these unmet demand numbers should be considered as conservative.

Local community groups in opposition

In an August 2023 survey by Wānaka Stakeholders Group Inc,² 84% of respondents were opposed to the airport. There were 608 responses from the group's 3500 members and others. As the group was formed in order to oppose the expansion of Wānaka Airport, 34 km from Tarras, and members have been receiving information from the group for several years, neither the group members nor the respondents represent a random sample of the residents of the wider region.

Similarly, a survey of local Tarras residents conducted by Sustainable Tarras Inc in October 2021 found significant opposition to the proposal.³ 103 residents (41% of the local population) responded, and the survey found that 83% were against or strongly against. While this survey does draw upon a representative sample of Tarras residents, it does not report the opinions of residents of the wider Central Otago region.

Christchurch Airport's approach

Due to commercial sensitivity, the airport proposal has been developed with little or no consultation or input from local communities. Airport executives argue that they are not legally obliged to consult at this stage, whilst local groups have voiced concern at lack of any meaningful consultation with Central Otago residents.⁴ There is concern about the lack of social licence for the project, with Christchurch Airport's current CEO labelling this concern as "disappointing and frustrating" in a recent interview with Tourism Ticker.⁵

Christchurch Airport's approach, and the various stakeholder communities' reactions to it so far, highlight the need for rigorous and independent insights into the opinions of residents in the Central Otago region, to inform discussion and debate and to support decision makers at local, regional and national levels. The authors have designed and led this study to provide such insight.

Given an age of information overload, the survey received a high response rate.⁶ Furthermore open-ended questions received many detailed and considered written responses, indicating a high level of engagement among survey participants. Many respondents invested time and effort in providing written responses that were detailed and carefully considered.

The results that are presented in this and the two following reports are drawn from the analysis of both quantitative data and qualitative insights from a comprehensive and representative survey of Central Otago residents.



REPORTING ON THE RESULTS

Any debate surrounding the proposal to build a new airport must be situated within the context of wider issues of relevance and importance to the debate.

Reflecting the wide ranging nature of the survey, and the depth of detail in answers provided by many survey respondents, the results of this Central Otago resident opinion study will be shared in three separate reports:

Report 1 - Central Otago residents opinions (January 2024)

The first report will provide preliminary insights into Central Otago resident opinions in relation to questions that address five broad themes; lifestyle, climate change, infrastructure and growth, tourism, and air travel and airports. The first report presents descriptive summaries of how survey participants responded to over 70 predominated closed-response (tick box) questions. This report is illustrated with a sample of some of the many written responses to open-ended questions included in the survey.

Report 2 - An in depth qualitative analysis of Central Otago residents open-ended written responses (February 2024)

The second report will present an analysis of all detailed written answers provided in response to the open-ended questions that were included in each section of the study. Written responses to open-ended questions in the survey were extensive, showed very high levels of engagement and understanding of the issues as seen by Central Otago residents themselves. Responses to open-ended questions afford the opportunity to extend the findings of the study from descriptive quantitative analysis to the more in depth analysis of qualitative responses.

Report 3 - Bivariate analysis of relationships, patterns and correlations (April 2024)

The third and final report will present the results of bivariate analyses to uncover the relationships that exist between responses to different questions. Examining the relationships between demographic variables and opinions on specific issues, for example, allow less immediately obvious insights to be achieved. The finding presented in the third report will be important given the breadth of questions asked and the geographical spread of respondents across the diverse range of communities in Central Otago.



BACKGROUND

Christchurch and Central Otago Airports in the context of New Zealand aviation.

In 2019, New Zealand had the 6th highest per capita aviation emissions in the world, at 1 tonne CO₂. This comprised 12% of its carbon dioxide emissions. Most (80%) of this arises from international aviation, which grew from 1.3 Mt to 3.9 Mt CO₂ between 1990 and 2019. Particularly rapid growth of 49%, from 2.6 to 3.9 Mt CO₂, was observed in the four years from 2014 to 2018.⁷

Key factors in the size and growth of emissions include the location of the country, its rising proportion of globally dispersed families (the immigrant population rising from 17.5% in 1996 to 27.4% in 2018), the falling real price of air travel, and the growth of the tourist industry (international visitor numbers grew from 1.0 million in 1990 to 3.9 million in 2019). Demand growth is the key driver of increasing tourism emissions. Over recent decades demand growth has consistently exceeded aviation technology development and tourism supply chain efficiency gains, such that aligning aviation with the Paris Agreement is impossible under current demand growth forecasts.⁸

New Zealand currently has two airports catering to wide-body jets, Auckland (10.5 million international passengers in 2019, plus 1 million transit passengers) and Christchurch (1.8 million). Other international airports totalled 1.9 million (Queenstown, 0.7 million; Wellington, 0.9 million). Of the 14.2 million international passengers, 30% travelled on long-haul flights (averaging 8900 km) to or from Auckland or Christchurch, but these long-haul flights accounted for 64% of emissions.9

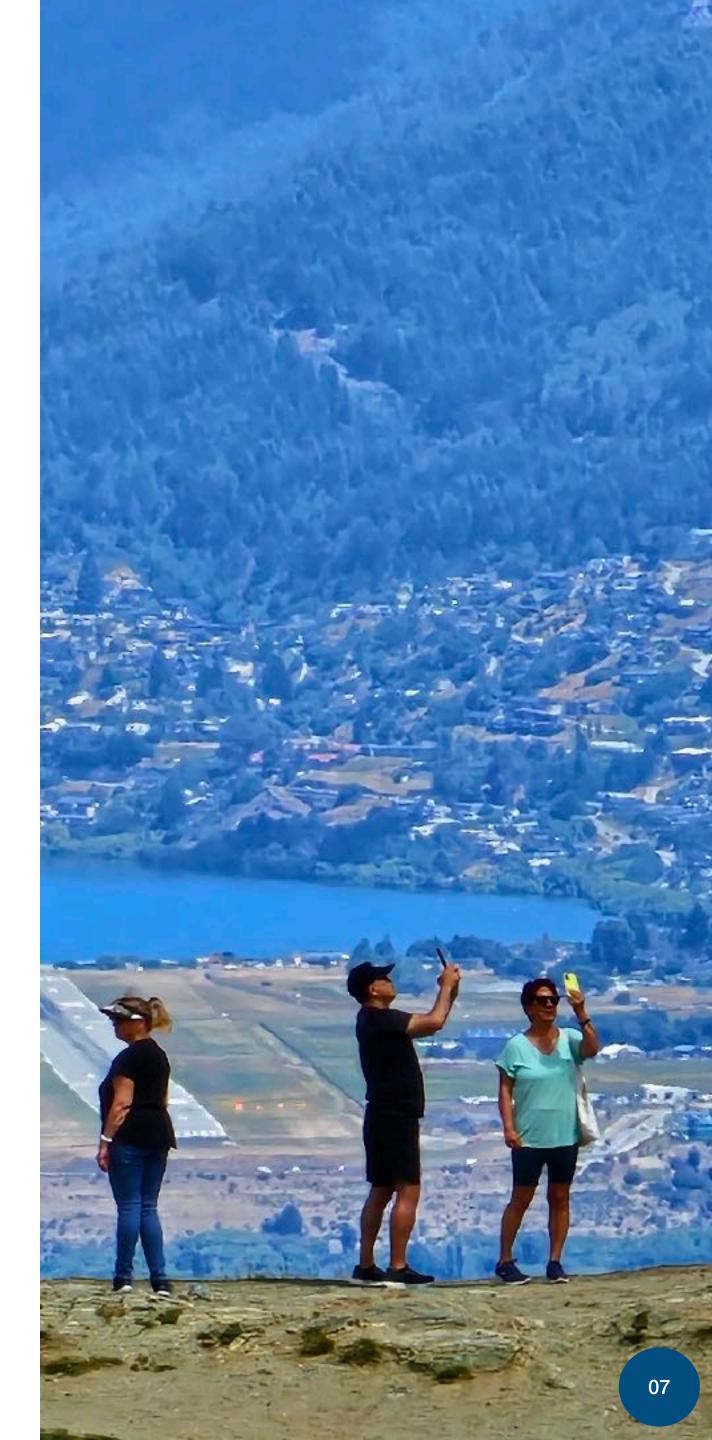
Auckland Airport (a public corporation - Auckland International Airport Limited) dominates the market, with half of all traffic. 760 km to the south lies Christchurch Airport (a public company, owned 75% by Christchurch City Council and 25% by the New Zealand Government), the country's second largest with 1/6 of total traffic. Another 350 km further south, in the heart of a ski and tourist destination, is Queenstown Airport, another public company, owned 75.01% by the local council (Queenstown Lakes District Council) and 24.99% by Auckland Airport. It has about 5% of total traffic.¹⁰



The Queenstown Lakes District, although small in population, has grown rapidly. The population was 29,700 in 2013 and 52,800 in June 2023, a 5.9% annual growth rate (cf. New Zealand 1.6% in the same period.) The district comprises 1% of New Zealand's resident population.

The study area in this report also includes the Central Otago District, which grew from 18,500 residents in 2013 to 26,000 in 2023 (a 3.5% growth rate). Passenger movements at Queenstown Airport grew from 1.2 million in 2013 to 2.4 million in 2019, a 12% annual growth rate. Demand recovered strongly post-Covid, with international passenger numbers at 126% of pre-Covid levels and domestic at 94% as of mid-2023.¹¹

A 2018 long-term plan for Queenstown Airport projected 5.1 million passengers by 2045, plus another 2 million at Wānaka (currently serving a few thousand passengers annually in 9-seat aircraft, and not equipped to handle jet aircraft). Local opposition led to the Wānaka plans being cancelled after a High Court ruling in 2021. A revised plan for Queenstown Airport now forecasts 3.2 million passengers in 2032, reaching the capacity of current runway and noise limits.





Into this contested ground, it was revealed in July 2020 that Christchurch International Airport Ltd was considering building a new international airport at Tarras, a rural area with a population of a few hundred located 91 km from Queenstown, 32 km from Cromwell, and 34 km from Wānaka. This prompted extensive local and national discussion that continues to the present, covering the environmental impact of the airport's construction and operation, its influence on total aviation emissions, its impact on the local community and on Queenstown and its airport, and its influence on the overall trajectory of the district. It would have the potential to be New Zealand's third commercial airport servicing wide-body jets for long-haul flights.

In January 2023 the authors of the present paper, together with other New Zealand academics working in business, economics, climate science, sustainability, Māori and indigenous studies, tourism, the environment, agriculture, and policy studies, began a public campaign calling on decision makers to be informed by current and rigorous research on all aspects of the Tarras Airport proposal.¹⁴

Early stage plans for an airport in Tarras were made public in September 2021, with more detail provided in August 2023). These indicated a runway length of up to 2600m, suitable for narrow-body jets such as those that currently service Queenstown Airport, as well as wide-body long-haul jets. Passengers departing from Queenstown Airport were responsible for emissions of 0.13 Mt CO₂ in 2019. If a return on capital requires 4 times as many passengers as currently use Queenstown Airport, its emissions could be up to 0.52 Mt CO₂, in addition to another 0.52 Mt CO₂ at destination airports.

Christchurch Airport officials have talked from the first about plans for international jets,¹⁸ and then subsequently confirmed that it would quite possibly lengthen the runway, and enable long-haul flights to Asia and North America.¹⁹

It was the growth of these markets that were responsible for the 49% growth in New Zealand's international aviation emissions from 2014 to 2018, from 2.63 to 3.91 Mt CO₂. Central Otago Airport could potentially have the same capacity as Auckland Airport, which would enable 6 million tonnes of additional CO₂ emissions annually by 2050.

Globally and locally, the aviation industry is in a difficult situation. Projections of traffic doubling by 2050, combined with unrealistic decarbonisation scenarios, mean that the industry's climate impact is regarded as "critically insufficient", resulting in global warming of more than 4 °C if all sectors followed such a path.²⁰

The three constituents of aviation emissions are passenger numbers, distance travelled, and emissions intensity. Technological improvements in emissions intensity are unlikely to be sufficient to outweigh the effects of traffic growth and increasingly longer flights, two aspects which are particularly relevant to New Zealand. The development of a national aviation emissions plan consistent with our international obligations and agreements is an urgent priority.²¹

Partly due to its nationally unique climate and geography, the Central Otago region may see particularly noticeable changes due to climate change, including peak temperatures rising 4-6 °C, a greater likelihood of more extreme rainfall events, significantly smaller snowpacks with less runoff in spring, 18–53 fewer frost days (a reduction of about half). A report for the Central Otago District Council notes that "in the worst case, there would be very little mountain snow cover remaining by the end of the century".²²

ΛO

METHODS

This study covers both Queenstown Lakes and Central Otago districts. The districts are divided into eight wards, and Statistics New Zealand further divides the wards into 414 'Statistical Areas' (SA1).

In order to achieve fairly uniform geographic coverage, 33 SA1s were chosen at random across Central Otago, ensuring representation from within each ward, in such a way that the sampled population of each ward would be proportional to its total population. The airport lies in the Cromwell ward; two low-population SA1s closest to the airport site (Tarras and Queensbury) were also included.

In Spring of 2023, a letter inviting one household member to complete a detailed survey online was delivered to every mailbox in the selected SA1 areas. There was a lower response rate from the Cromwell ward, after which households in a further 4 randomly selected SA1s within that Ward were invited to participate to ensure that there was sufficient response data to analyse residents' views in that town.

2705 invitations were delivered (about 1 dwelling in 13 across the region) and 302 responses received, a response rate of 11%. There are responses from all towns large and small, as well as from rural areas.

The survey itself (see Appendix) was intended by the three authors of this paper to be as objective as possible, while all aspects of the study have been designed to reduce bias. The questions put to participants comprise 9 demographic questions; 20 questions on a 5-point Likert scale on the importance of different factors in choosing to live in or visit the region; 11 questions on climate change; 6 questions about tourism in the region; 13 questions about infrastructure and growth in the region; and 13 questions about personal air travel and airports. Each section included open-response questions which invited respondents to express their views in their own words, and in as much detail as they wished.

The study methodology, methods and survey design received ethical approval from the Massey University Ethics Committee.



RESULTS

This initial report presents a descriptive account of responses to all quantitative (closed-response) questions, to provide a clear picture of the general views of residents across the Central Otago region. During 2024, further work will be undertaken to analyse the data even more closely, including more detailed analysis of open-ended responses and investigating correlations which may provide additional significant insights.

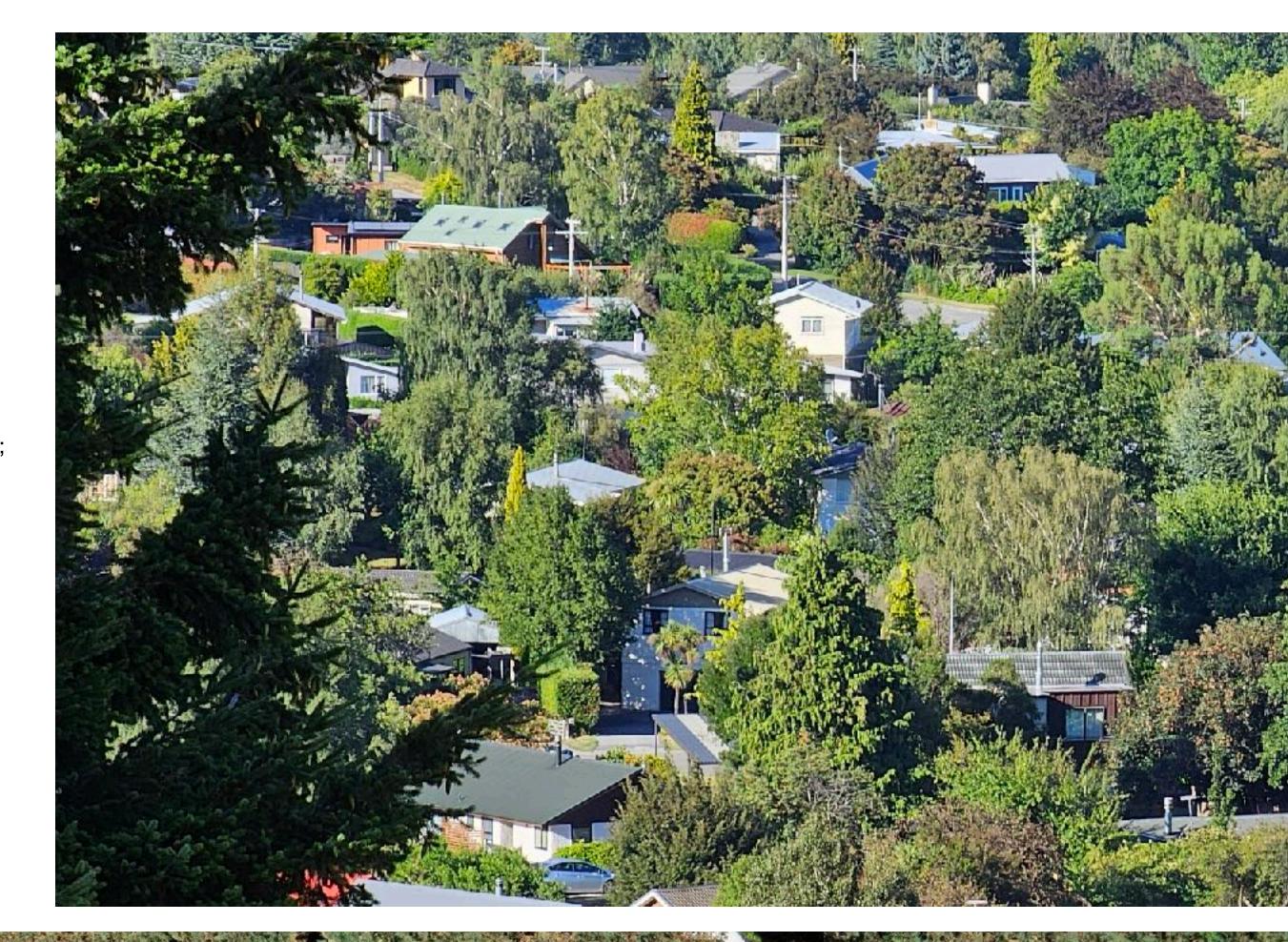
Both districts had return rates of 11%. The three largest wards had return rates of 71/760 = 9% (Queenstown-Wakatipu), 69/510 = 13.5% (Wānaka), and 98/850 (11.5%, Cromwell). Because of the extra maildrops in Cromwell, the Cromwell ward is overrepresented in the sample (13% of the population vs. 32% of the sample). As we shall see, there are few if any notable differences between the wards; in this analysis, all responses are included.

The sample is older than the population. 19% of the adult population is aged 65 and over vs 31.5% of the sample; 37% of the adult population is aged 40-64 vs. 48% of the sample. This could be due to older recipients having a higher propensity to complete the survey either at all or in preference to younger members of the same household.

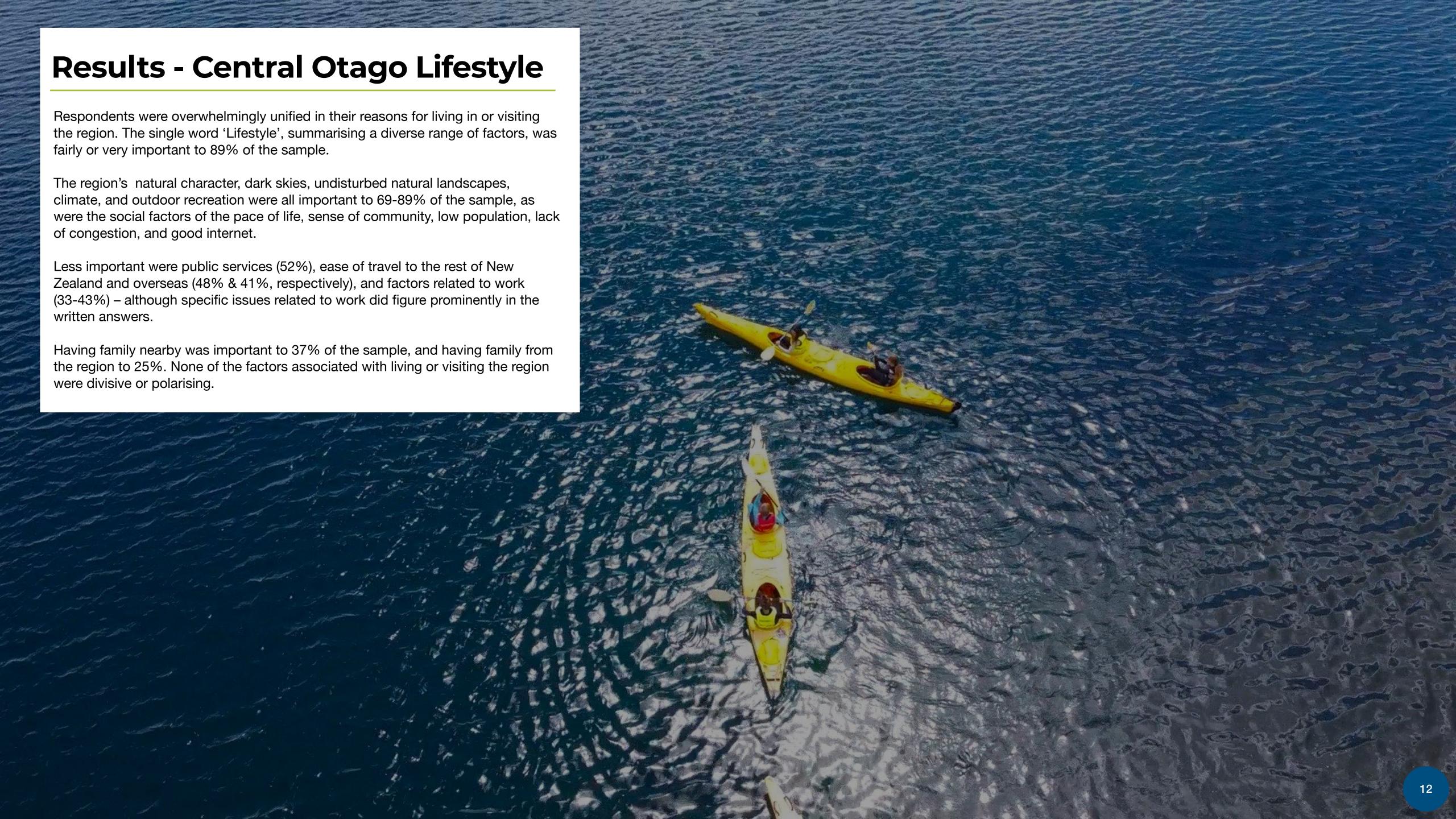
The sample is overrepresented by women (63%). The stated ethnicities of the respondents match those of the population of the region.

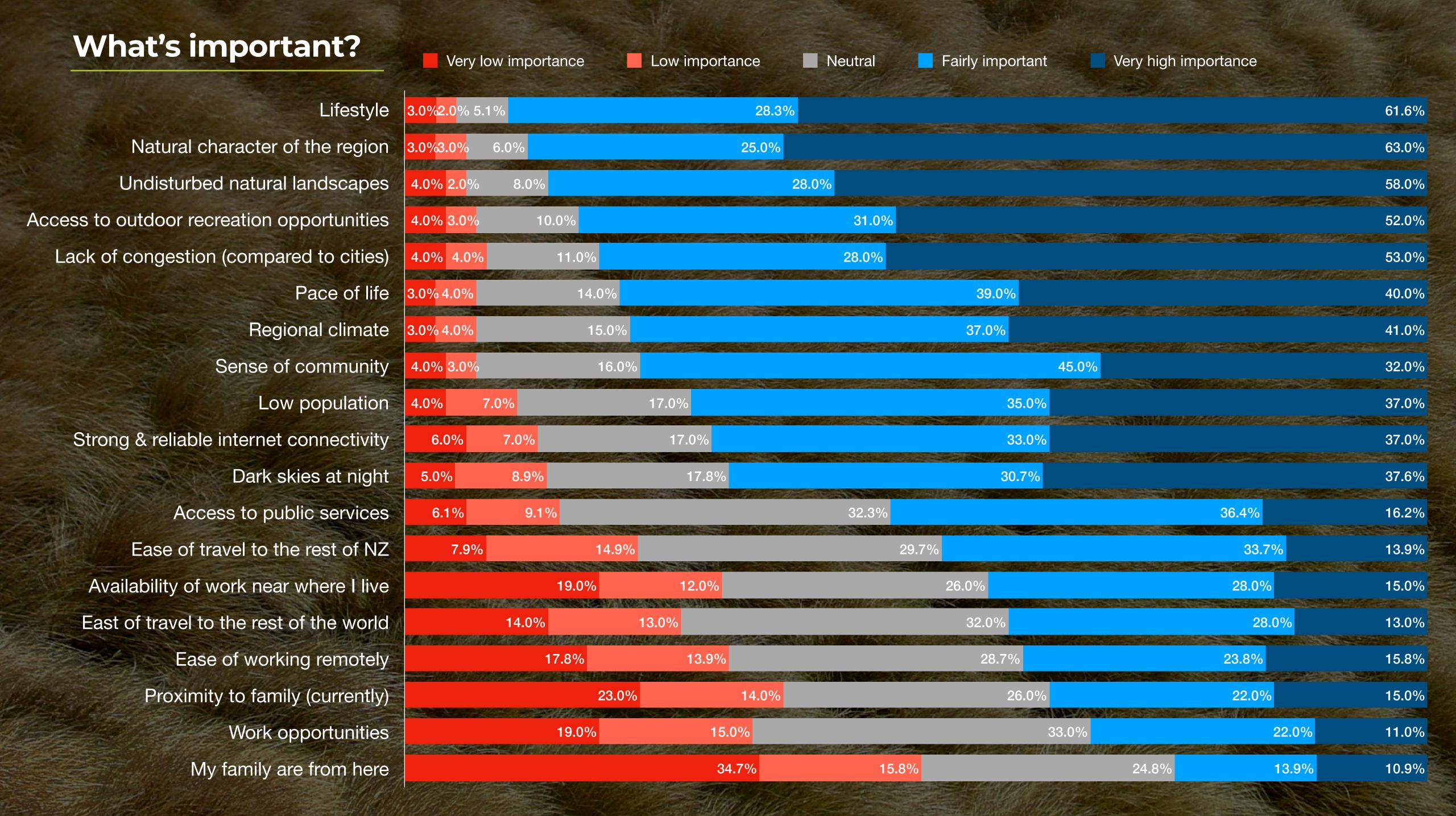
The income distribution of the sample is slightly different from the rest of New Zealand. (We do not have income percentiles available for the survey region.) P14 (the 14th percentile of gross household income) is \$50,000 for the sample vs. \$48,000 for New Zealand; P35 is \$80,000 for the sample, as it is for New Zealand; P63 is \$150,000 for the sample vs. \$122,000 for New Zealand; P88 is \$250,000 for the sample vs. \$204,000 for New Zealand. The bottom half of the sample has similar incomes to the rest of New Zealand, the top half about 20% higher.

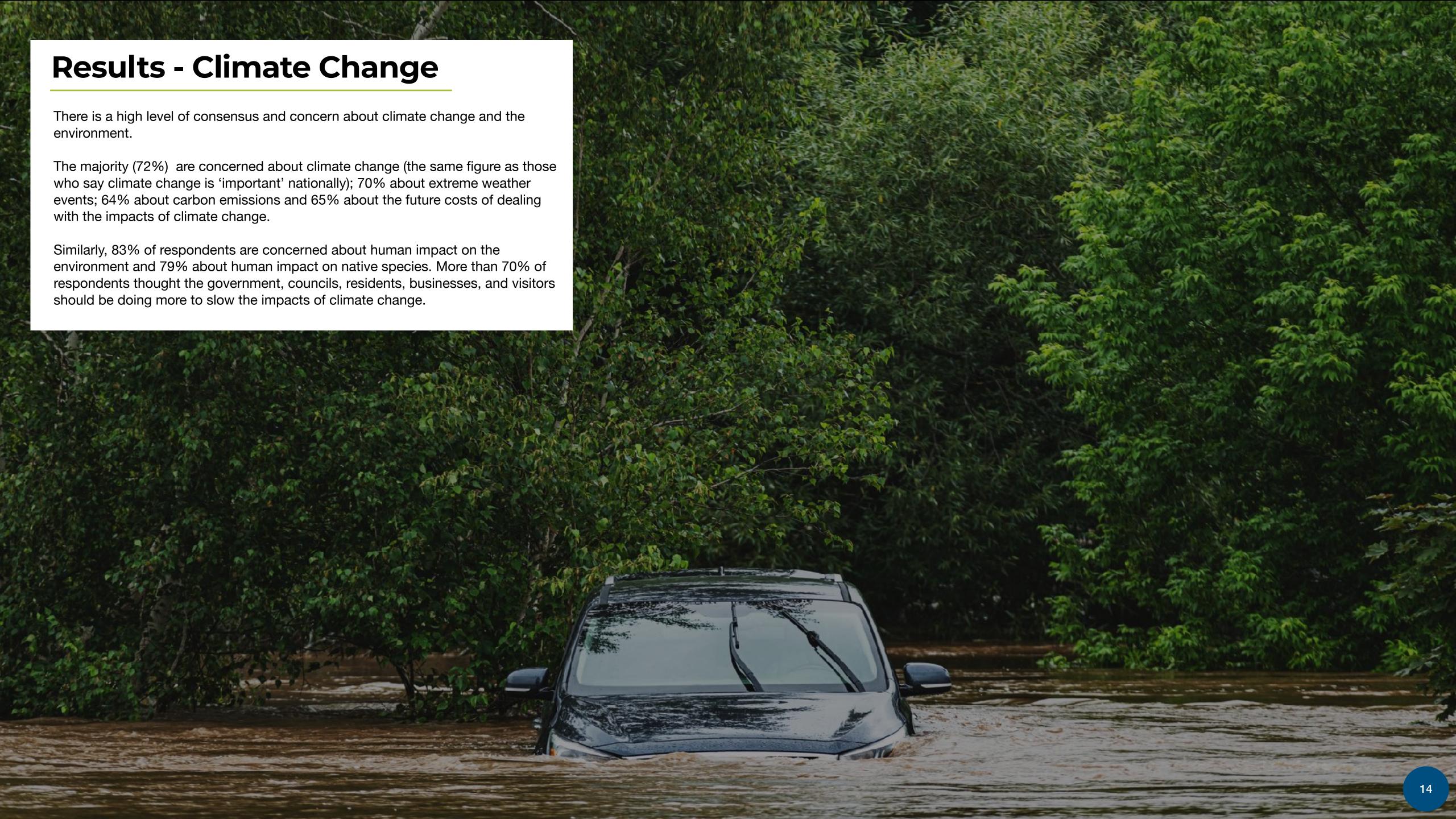
95% of the sample lives in the region, with a median residence time of 10 years. The five largest employment sectors are hospitality and tourism (12%), property and construction (11%), and healthcare, education, and agriculture (10% each).



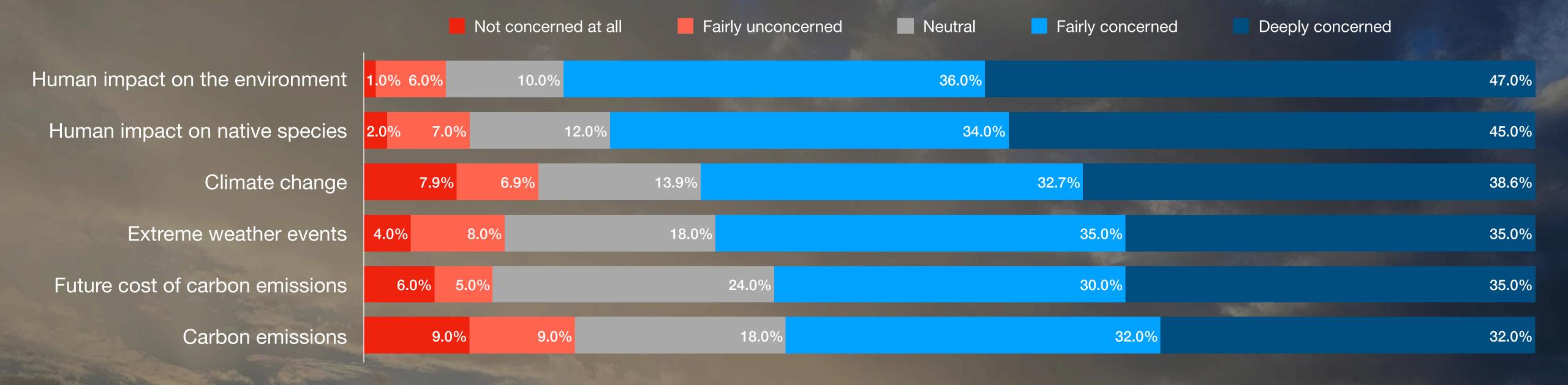




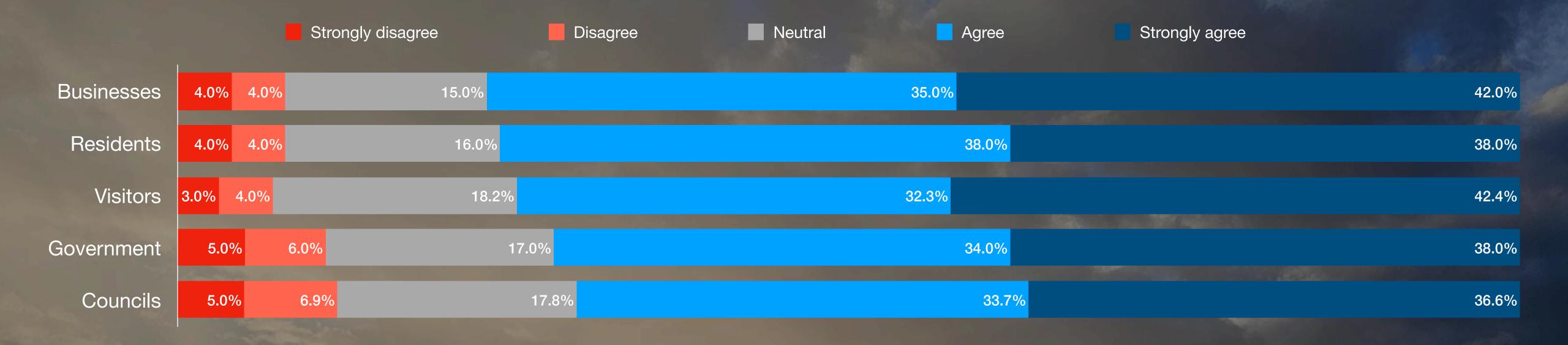


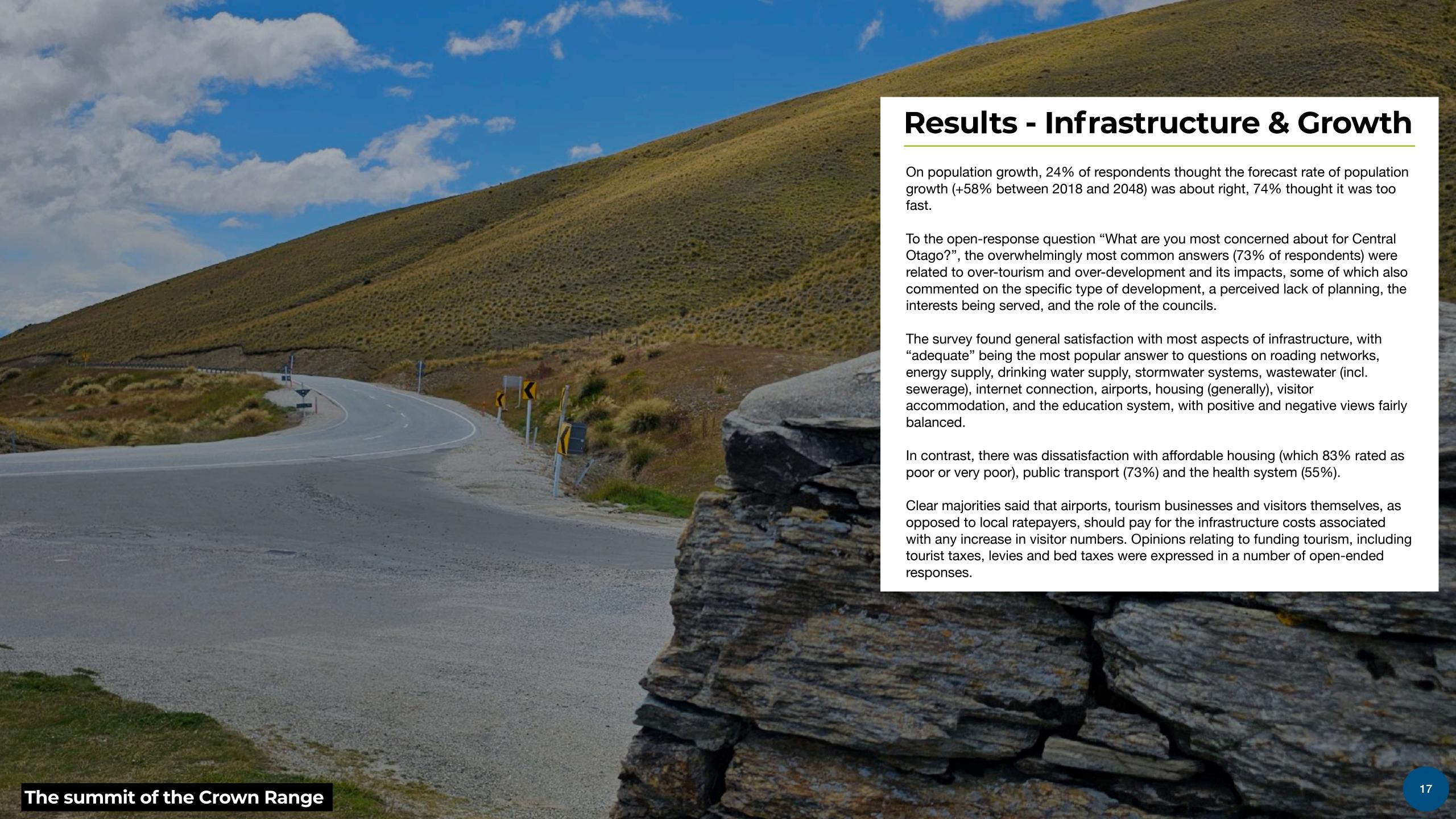


How people feel



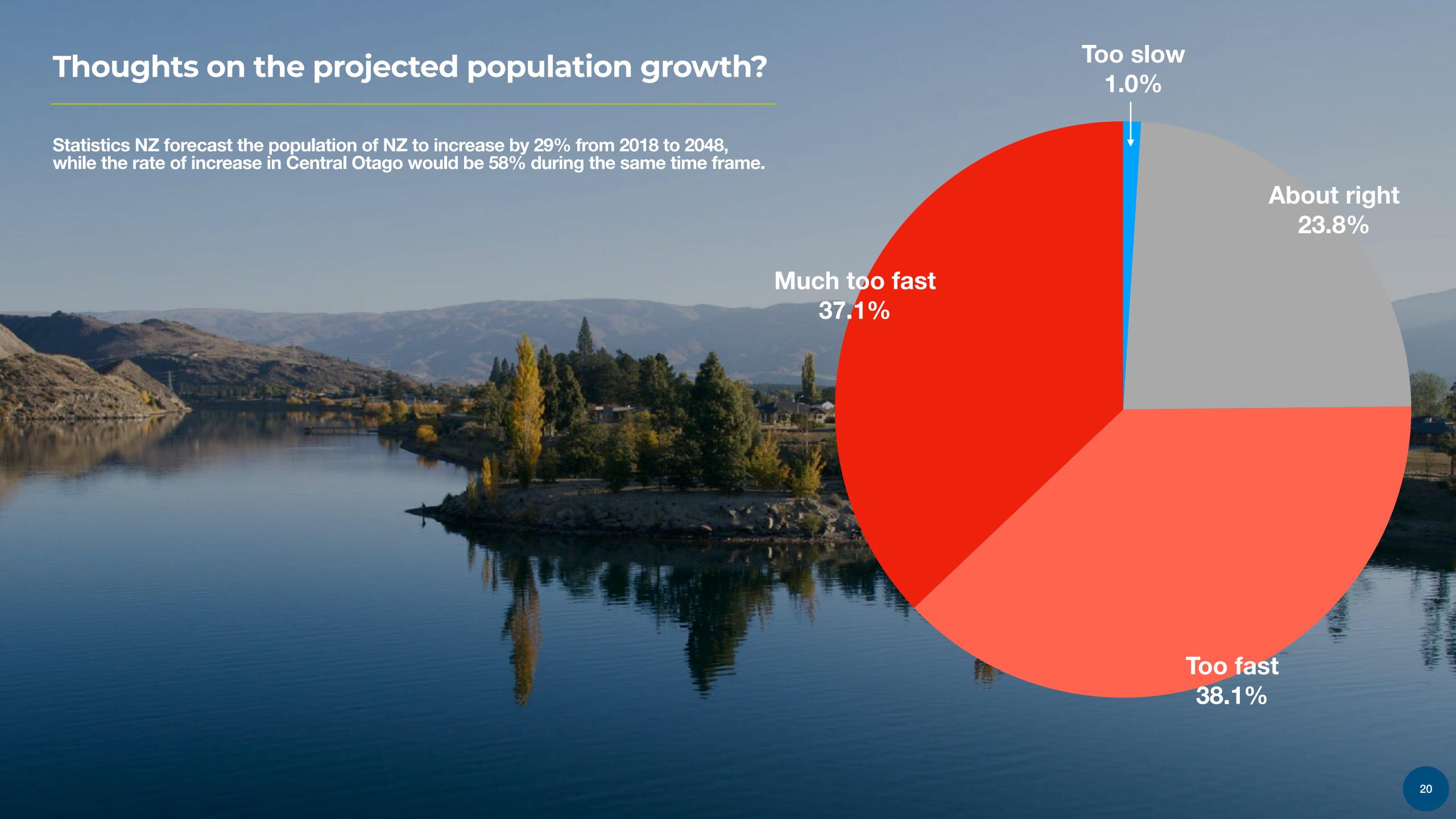
Who should do more?

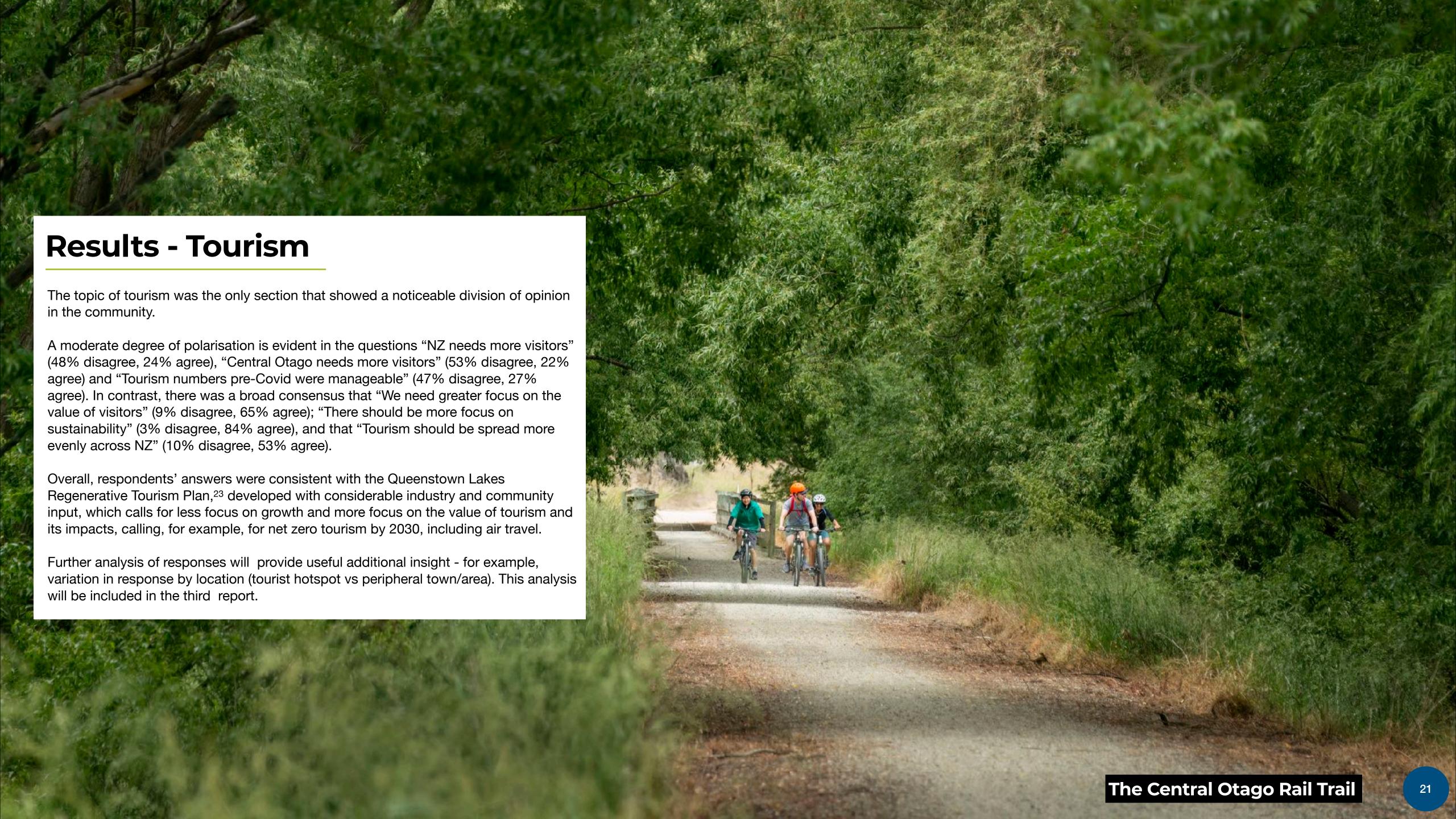




Rating existing infrastructure Very good Poor Adequate Good Very poor Internet connection 17.0% 35.0% 34.0% 10.0% Airports 4.0% 12.0% 43.0% 29.0% 12.0% Visitor accommodation 4.0% 49.5% 8.1% 26.3% 12.1% Drinking water supply 11.0% 18.0% 37.0% 24.0% 10.0% Education system 6.0% 16.0% 27.0% 6.0% 45.0% Energy supply 17.0% 24.0% 6.0% 7.0% 46.0% Housing (generally) 14.0% 24.0% 36.0% 21.0% 5.0% Roading networks 5.0% 9.0% 28.0% 42.0% 16.0% Stormwater systems 11.0% 25.0% 45.0% **16.0%** 3.0% Wastewater (incl. sewerage) 14.9% 4.0% 8.9% 21.8% 50.5% Health system 21.0% 33.0% 28.0% **15.0%** 3.0% 6.0% **1.**0% Public Transport 36.0% 36.0% Affordable housing 42.4% 41.4% 14.1% <mark>2.0</mark>%











Results - Air Travel and Airports

85% of respondents reported taking at least one domestic flight in a normal year; the most popular answer was 3-5 return trips, and the average was 3. Combined with the generally longer flights, this suggests that residents fly more domestically and are responsible for greater domestic aviation emissions (about 0.6 t CO2) than New Zealanders as a whole, who take an average of 1.5 return flights per year incurring emissions of 0.2 t CO2 per person.

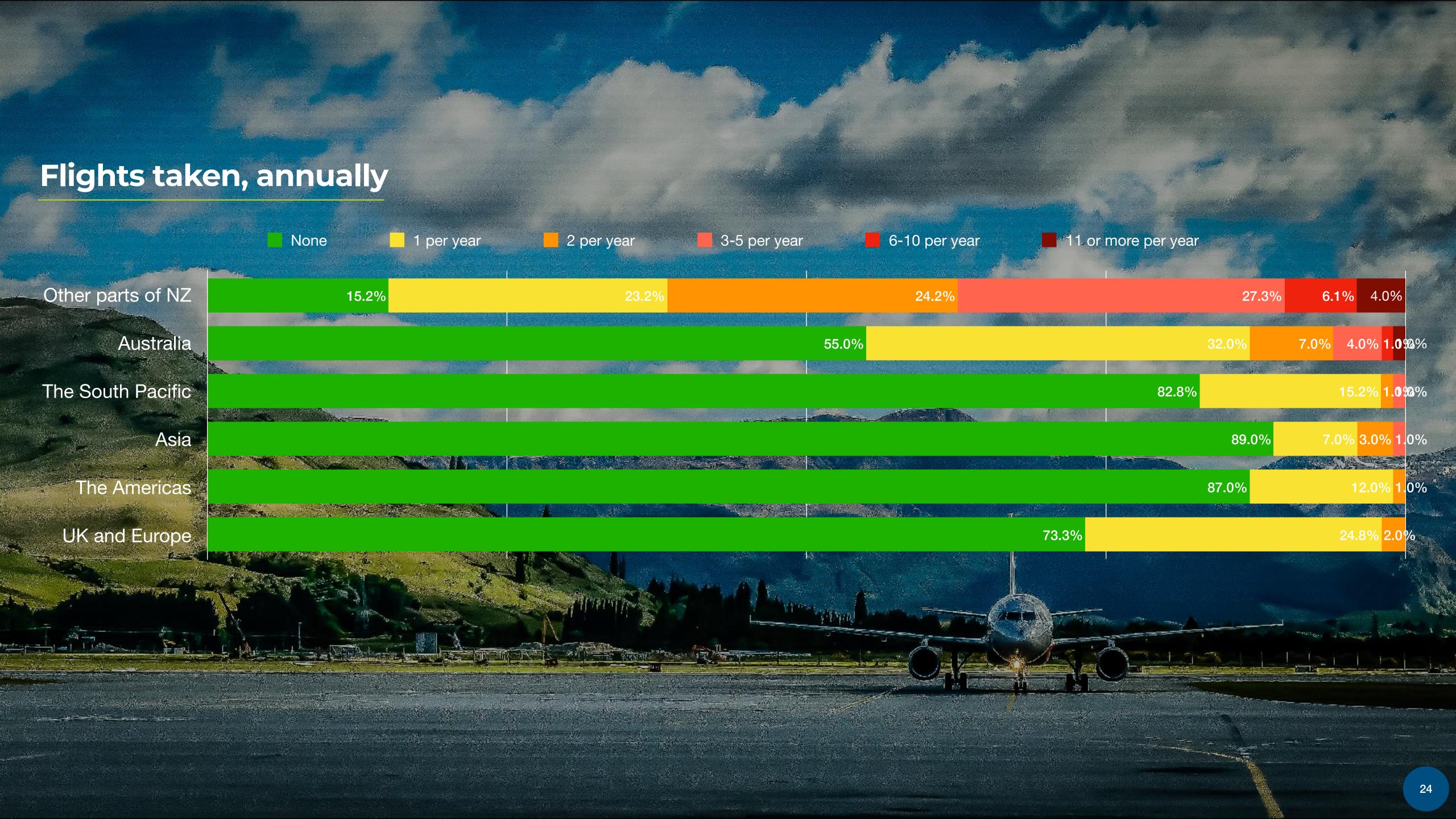
45% of respondents fly to Australia, 18% to the South Pacific, 11% to Asia, 13% to the Americas, and 26% to the UK or Europe in a normal year, some of them more than once. The average number of international trips in a normal year is 1.7.

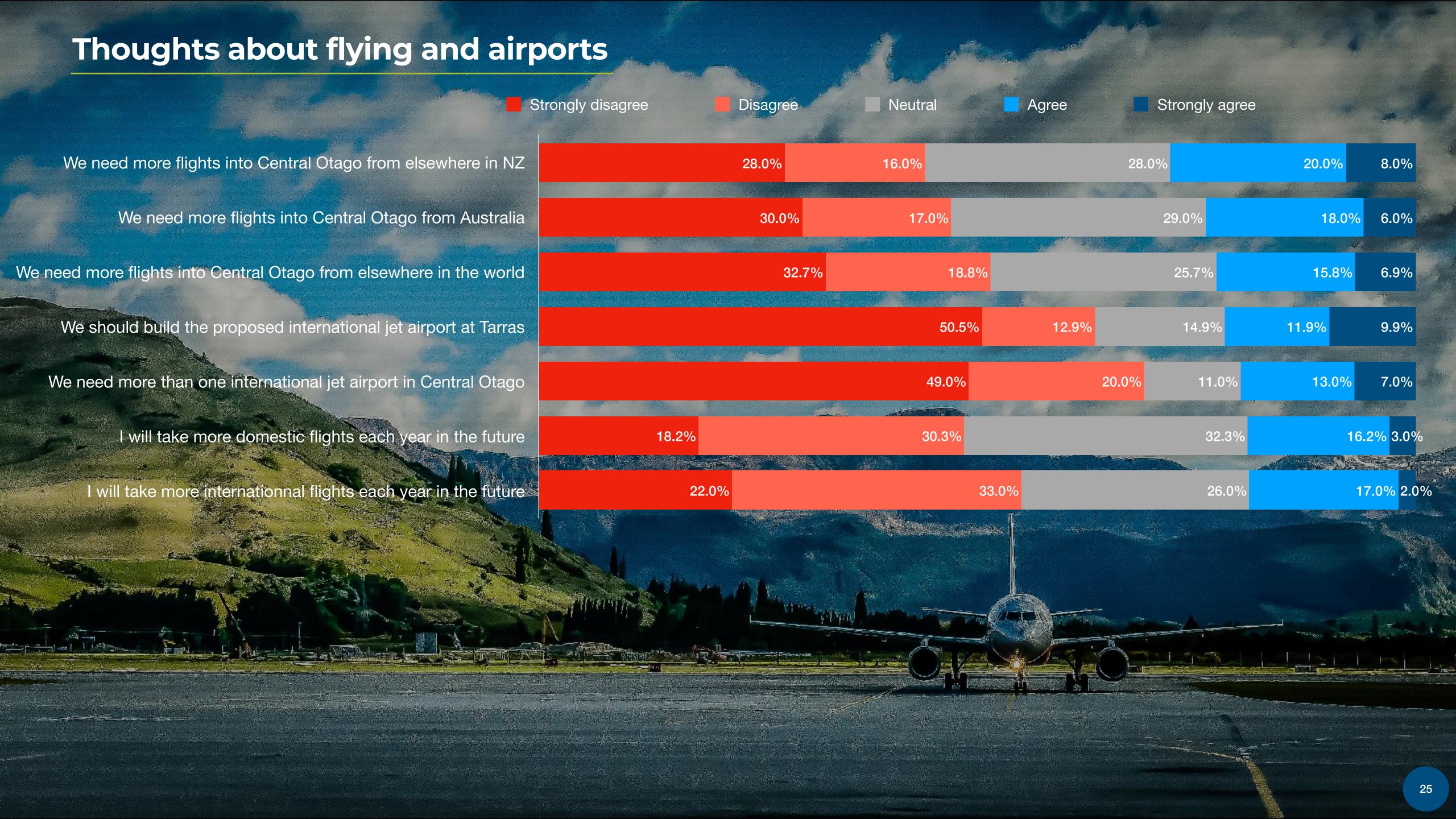
While only 11% of respondents indicated that they would not fly at all in a normal year, the distribution of the *amount* of air travel was highly skewed, with a small part of the sample responsible for most of the total travel and associated emissions.

24% of respondents declared an intention to fly more in the future compared to a normal year in the past; the rest were neutral or disagreed. The latter, at 58%, may be indicating an intention to fly less. One quarter of respondents thought more flights into Central Otago were needed.

Five out of every eight respondents (63%) disagreed that the proposed new airport at Tarras should be built (51% strongly disagreed). 22% agreed that it should be built (10% strongly), and 15% were neutral. A slightly higher proportion (69%) disagreed that more than one international jet airport is needed in Central Otago.

It is important to note that demand modelling for the proposed new airport is over and above demand served by Queenstown International Airport. The Christchurch Airport proposal for a new airport at Tarras focuses on future 'unmet demand' and is independent of and additional to Queenstown Airport. At no point has the Tarras proposal been positioned by Christchurch Airport as a replacement for ZQN, and the CEO of Queenstown Airport has confirmed that there is no suggestion that his organisation would consider ceasing commercial operations at their Frankton location if an airport went ahead at Tarras.







Discussion

Resource consent framework and relevant legislation

Resource consents for projects such as airports are granted by regional councils. The original Resource Management Act (1991) allowed councils to consider greenhouse gas emissions. This ability was removed in 2004, as greenhouse gases were held by the government to be regulated by the Emissions Trading Scheme (ETS). Another amendment in 2020 restored the ability for councils to consider greenhouse gas emissions and further required councils and courts to have regard to climate change. The entire Act was repealed and replaced in August 2023, only to be reinstated in December following a change of government; the new government plans to amend and eventually replace the Act.

While domestic aviation emissions are fully included in the ETS, international aviation emissions are not. A variety of government actions indicate, however, that such emissions could be considered in any consent application: the Paris Agreement, the inclusion in the Zero Carbon Act for the Climate Change Commission to advise on the topic in 2024, New Zealand's status as a founding member of the International Aviation High Ambition Coalition (which included a pledge to 'advance ambitious actions to reduce aviation CO₂ emissions at a rate consistent with efforts to limit the global average temperature increase to 1.5 °C'), its support for the ICAO aspirational goal of net zero international aviation by 2050, and its formation of the government/industry advisory group Sustainable Aviation Aotearoa to support the delivery of net zero aviation.

The Civil Aviation Act 2023 enters into force in 2025 with the purpose of, amongst other things, to 'maintain, enhance, and promote a transport system that contributes to environmental sustainability, economic prosperity, inclusive access, healthy and safe people, and resilience and security' and to 'take into account the adverse effects of civil aviation on the interests of people, property, and the environment.' (It implements ICAO's CORSIA offsetting scheme.)

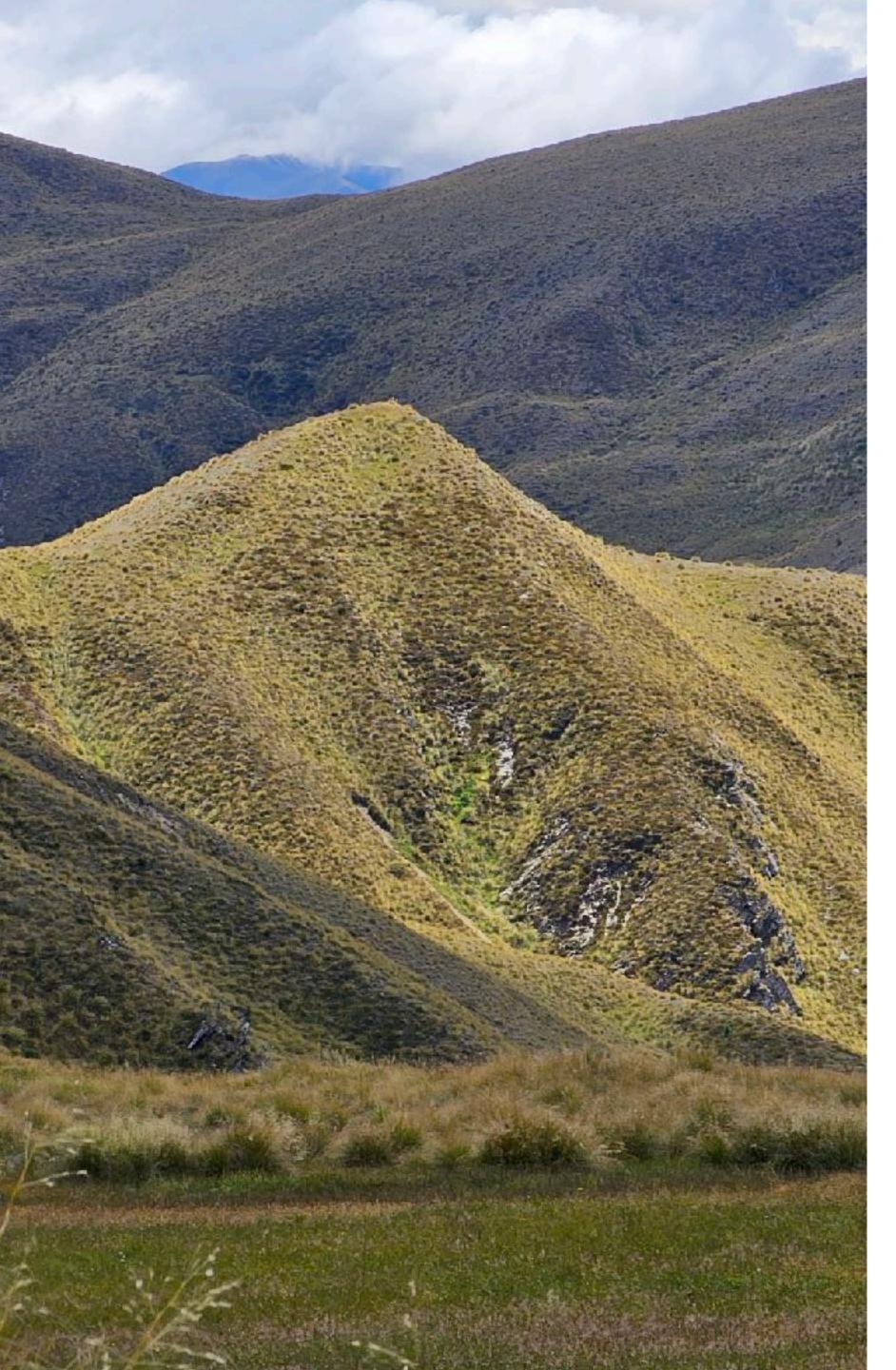
The Central Otago Airport proposal arrives at a critical time for environmental action, but also at a time when the regulatory framework is uncertain and evolving on many fronts. In this situation, corporate governance plays a highly significant role, and the actions and plans of corporations and other organisations assume heightened influence.

The role of the local community

Nimbyism ('Not In My Back Yard') is a pejorative term, dating from the 1970s, implying that the target of the term is objecting to a local development for selfish, parochial reasons, even though they would approve such a development elsewhere and accept that the development fulfils a public good. In New Zealand, the term has most frequently occurred in the context of zoning regulations permitting medium- or high-density housing. Here the public good is the amelioration of the housing crisis via a more compact urban form involving higher density, well-located housing. Even in this somewhat extreme case, however, an existing local streetscape may have *some* wider social and cultural value beyond its financial value to residents. Weighing competing interests is unavoidable and is the basis of planning.²⁴

After fifty years of use, the academic community finds little value in the Nimby concept and view it generally as a bad-faith attempt by prodevelopment forces to discredit and undermine opposition and avoid examination of the various interests in play. Many so-called 'Nimby' battles do not pit locals against the state's economic, social, and environmental interests, but locals against developers. On the other hand, just as locals may on occasion disguise selfish interests by appeals to more universal values such as the environment, capital can play the same game by claiming, for example, wider economic benefits of a particular project. Researchers have found that locals may oppose developments for a wide range of reasons such as the development process, the developer's intentions, the type of development, and its economic, social, and environmental impacts on a range of spatial and temporal scales. In addition, locals are likely to be better informed than others about developments in their backyard, if only due to the media attention that these generate, and have a stronger emotional connection to the existing local character.²⁵

26



Public participation in decision-making has waxed and waned considerably in New Zealand over the past thirty years, as successive governments have altered planning processes at many levels. Christine Chenye writes that:

It is well established in participatory planning and urban governance literature that the quality and sustainability of the urban environment, the strength of its democratic fabric and the community's ability to respond to complex challenges and 'wicked' problems such as social exclusion, environmental degradation, climate change, and urban growth and decline will be determined by the health of urban governance and, in particular, local government.²⁷

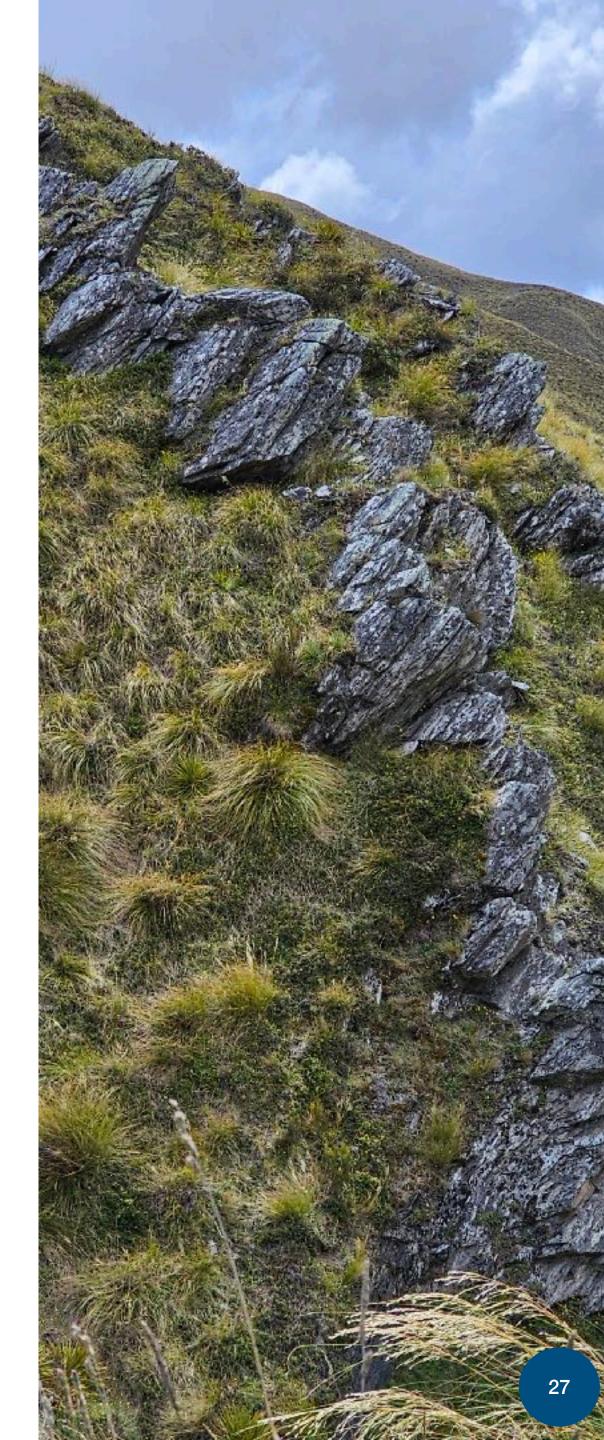
At that time (2015) there was a 'deepening democratic deficit' worsened by reforms that have sought to 'reduce the scope for citizen influence in urban and environmental governance.' Despite this, numerous local battles over specific projects have been fought, such as that over the Kāpiti Expressway, in which opposition groups specifically targeted what they saw as sham and misleading consultation by the government.

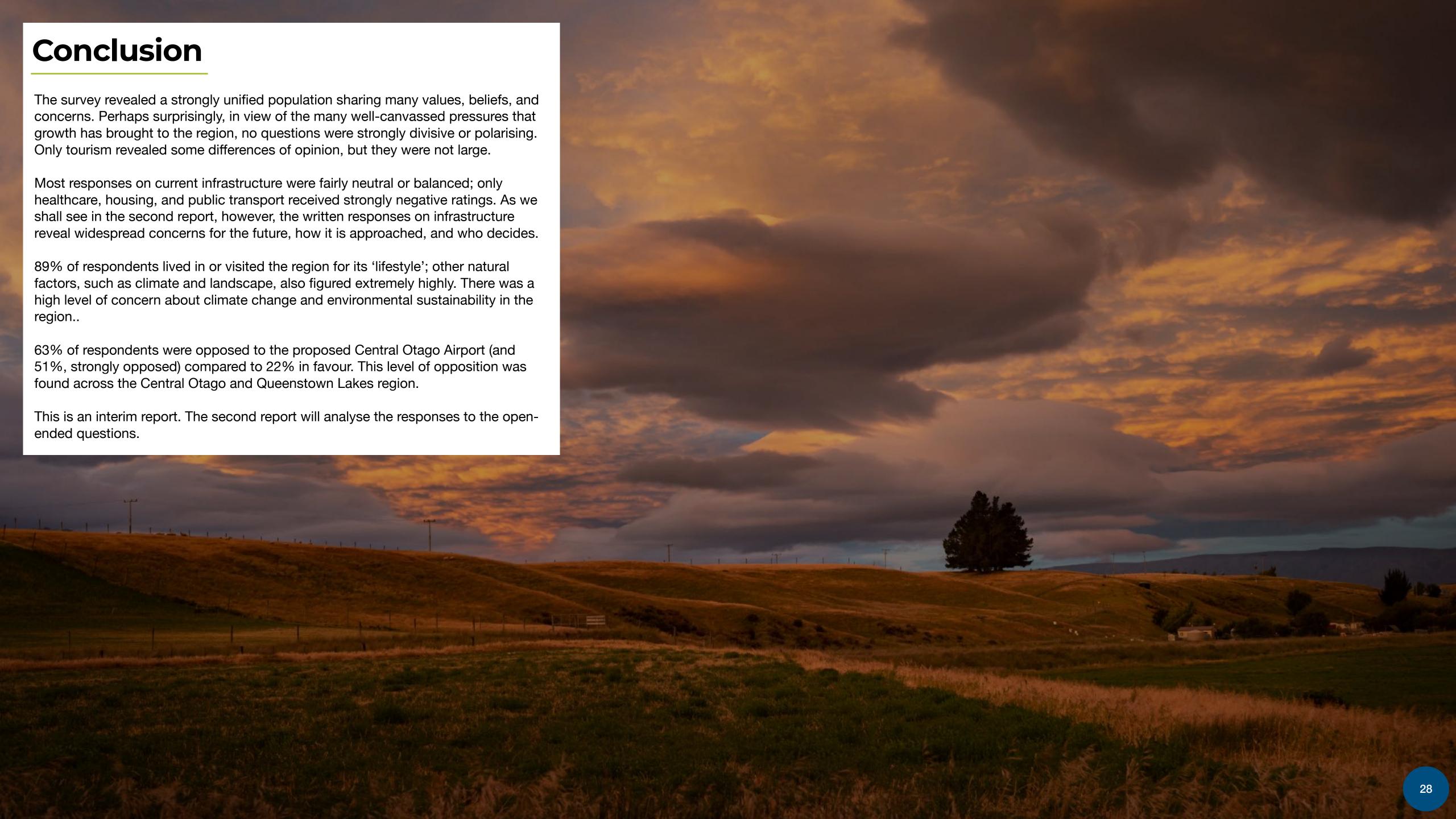
The relationship between a local community and an industrial development can be examined in terms of the "social licence to operate". This theory classifies community support and engagement into four levels of social licence: withholding, acceptance, approval, and coownership. Since its inception in the mining industry in the 1990s, it has evolved into a method of study, a tool for public- and private-sector planners, and a strategy for industries to gain and maintain support for their activities. In the context of climate change, it has been used for projects with both positive (e.g. solar and wind farms) and negative (petroleum extraction) climate impacts.²⁸ The survey results indicate that the social licence of Christchurch Airport to operate in Central Otago is currently withheld and that the very strongly negative views expressed by many respondents suggest that Christchurch Airport may find social licence difficult to gain.²⁹

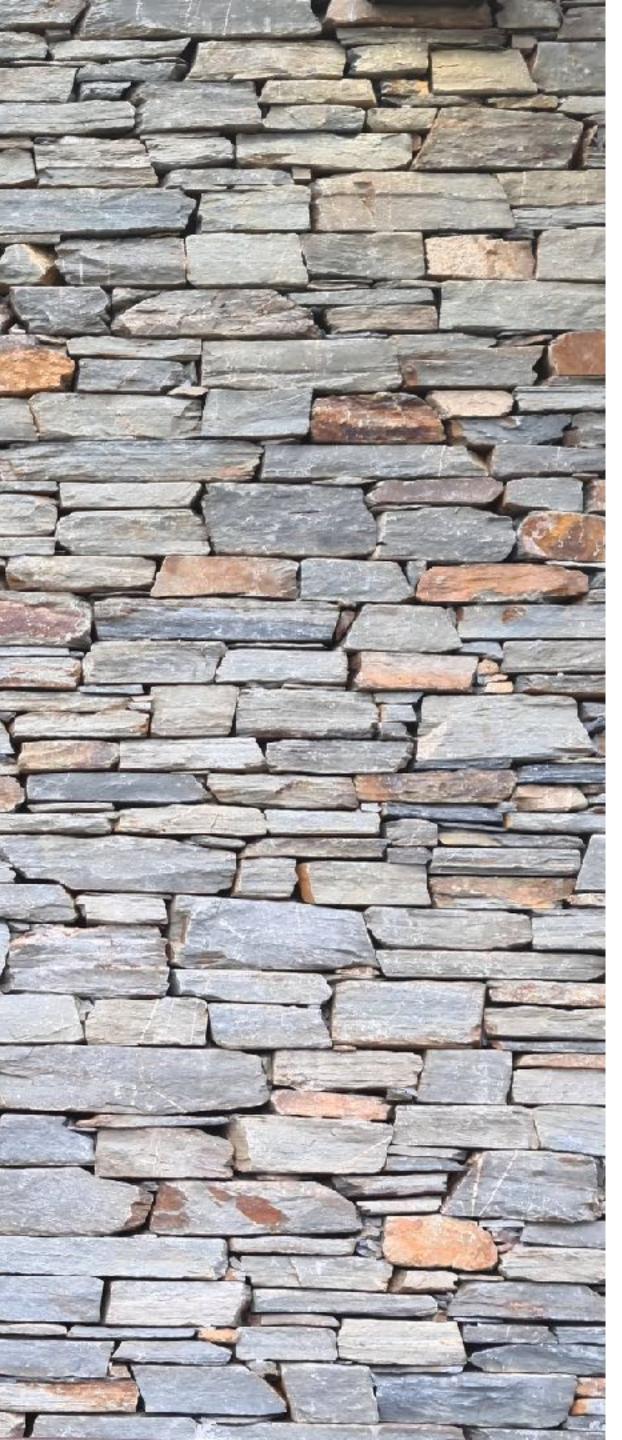
A particular challenge for the Central Otago Airport proposal is that most of the benefits accrue in the future to people who do not currently live in or visit the region. Most of the benefits of increased air connectivity accrue to future travellers, future tourist operators, and future exporters.

There are, of course, disbenefits to current local residents due to the industrial transformation of Tarras itself and to the growth and changing character of the region ("Killing the goose that laid the golden egg", as one respondent put it). But there are also disbenefits well outside the local time and place, via the induced growth of the aviation industry, the associated growth in emissions, and the impact of the ability of New Zealand and the international community to reduce them.

The project makes obvious the conflict between a tradition of endless growth and everincreasing mobility on one hand, and the requirement of a safe future, on the other. The survey results show that this conflict is readily apparent to a large number of respondents. The project throws into focus the question of what is the process for determining the overall development trajectory of a region. (As one respondent wrote, "Who defines what is 'progress'?")







Footnotes

- 1. Unlocking potential: Central Otago's runway to a future focussed airport: https://www.centralotagoairport.co.nz/uploads/images/Unlocking-potential-31-Aug2023.pdf
- 2. https://protectwanaka.nz/what-about-tarras-airport/
- 3. Survey details and results found on the Sustainable Tarras Facebook page here: https://www.facebook.com/SustainableTarras/posts/pfbid02oHtsEgtxGJPU3oWiNnbA7NreJRhC7DFrPnErCW2FuEPXbARnR95Tpgxijiz7s7tLl
- 4. 'Bribery, bullshit and bullying': Why plans for an international airport in Tarras have become so controversial. The Post, 22 January 2024. https://www.thepost.co.nz/nz-news/350137512/bribery-bullshit-and-bullying-why-plans-international-airport-tarras-have-become
- 5. Tarras airport criticism "disappointing, frustrating" Justin Watson. Tourism Ticker, 16 January 2024. https://www.tourismticker.com/2024/01/16/tarras-airport-criticism-disappointing-frustrating-justin-watson/
- 6. See methodology section and details in the appendices to this paper.
- 7. Callister, P., & McLachlan, R. I. (2023). Managing Aotearoa New Zealand's greenhouse gas emissions from aviation. *Journal of the Royal Society of New Zealand*, 1-21.
- 8. Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., & Malik, A. (2018). The carbon footprint of global tourism. Nature Climate Change, 8(6), 522-528.
- 9. Statistics New Zealand, 2022.
- 10. Ministry of Transport, Transport Outlook Current State 2016.
- 11. https://corporate.aucklandairport.co.nz/news/publications/monthly-traffic-updates
- 12. https://www.stuff.co.nz/national/124909402/hundredyear-lease-over-wnaka-airport-was-unlawful-high-court-rules
- 13. https://www.queenstownairport.co.nz/masterplan
- 14. https://informedleaders.com/tarras-letter-jan-2023/
- 15. Unlocking potential: Central Otago's runway to a future focussed airport: https://www.centralotagoairport.co.nz/uploads/images/Unlocking-potential-31-Aug2023.pdf
- 16. Pickard and Gençsü, 2021
- 17. https://protectwanaka.nz/2023/06/13/wsg-interviews-qac-ceo-about-draft-masterplan/
- 18. for example, RNZ interview with CEO Malcolm Johns in July 2020 https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018756124/christchurch-airport-buys-otago-land-with-airport-plans
- 19. Unlocking potential: Central Otago's runway to a future focussed airport: https://www.centralotagoairport.co.nz/uploads/images/Unlocking-potential-31-Aug2023.pdf
- 20. Climate Action Tracker, 2022
- 21. Callister and McLachlan 2023a,b, Callister et al., 2023
- 22. Cameron et al., 2017.
- 23. https://www.queenstownnz.co.nz/regenerative-tourism-2030/the-plan/
- 24. Lake, R. W., 1993.
- 25. Cheyne, C. and Ioannou, M. 2010, 2013.
- 26. Cheyne, C., 2015.
- 27. Hamlin, 2016.
- 28. Social License, 2017; Olawuyi and Pereira, 2022.
- 29. Morris et al., 2023.



References

Callister, P., & McLachlan, R. I. (2023a). Managing Aotearoa New Zealand's greenhouse gas emissions from aviation. Journal of the Royal Society of New Zealand, 1-21.

Callister, P., & McLachlan, R. (2023b). Decarbonising Aotearoa New Zealand's Aviation Sector: hard to abate, but even harder to govern. Policy Quarterly, 19(2), 9-18.

Callister, P., McLachlan, R.I., Wild, K., and Woodward, A. (2023). An aviation emissions reduction plan for Aotearoa. https://www.researchgate.net/publication/376717279 An aviation emissions reduction plan for Aotearoa

Cameron, C., Kremser, S., Lewis, J., Bodeker, G., and Conway, J. (2017). The past, present and future climate of Central Otago: Implications for the District.

Central Otago District Council (CODC) (2023). Tarras Community Plan 2023 https://www.codc.govt.nz/repository/libraries/id:2apsqkk8g1cxbyoqohn0/hierarchy/sitecollectiondocuments/plans/community-plans/Tarras%20Community%20Plan.pdf

Cheyne, C. (2015). Changing urban governance in New Zealand: Public participation and democratic legitimacy in local authority planning and decision-making 1989–2014. Urban Policy and Research, 33(4), 416-432.

Christchurch Airport (2023). Unlocking potential: Central Otago's runway to a future-focussed airport. August 2023. https://www.centralotagoairport.co.nz/uploads/images/mediumres PAAV2 digital 15Aug2023.pdf

Climate Action Tracker (2022). Climate Action Tracker, International Aviation. https://climateactiontracker.org/sectors/aviation/

Destination Queenstown Lake Wānaka Tourism Queenstown Lakes District Council. Travel to a thriving future: Queenstown Lakes Regenerative Tourism Plan https://www.queenstownnz.co.nz/regenerative-tourism-2030/the-plan/

Hamlin, M. J. (2016). 'The Kāpiti Distressway': A Sociological Case Study of Public Involvement in a Socio-Technical Controversy. PhD thesis, Victoria University of Wellington.

Higham, J.E.S., Cohen, S.A., & Cavaliere, C.T. (2014). Climate change, discretionary air travel, and the "Flyers' Dilemma". Journal of Travel Research, 53(4), 462-475.

Lake, R. W. (1993). Rethinking nimby. Journal of the American planning association, 59(1), 87-93.

Morris, C., Wells, K., Williams, C., Tangney, M., and Murray-Pyle, R. (2023). A report on the potential impacts of a proposed international airport on the settlement of Tarras. Otago University, prepared for Central Otago District Council.

Olawuyi, D. S., & Pereira, E. G. (Eds.). (2022). *The Palgrave Handbook of Natural Gas and Global Energy Transitions*. Palgrave Macmillan. Social License (2017). What Is the Social License? https://socialicense.com/definition.html

Stephenson, J., & Ioannou, M. (2010). Social acceptance of renewable electricity developments in New Zealand. Report for the Energy Efficiency and Conservation Authority.

Stephenson, J., & Ioannou, M. (2013). Seven assumptions about public reaction to renewable energies. Planning Quarterly 191.

APPENDIX - The survey



Friday 26th October 2023

TO THE HOUSEHOLDER

Please help us with an ten minute survey about life in your district - go into the draw for \$200 of groceries

Your household has been randomly selected to take part in a study spanning the Central Otago and Queenstown Lakes Districts. We are asking for **one person who is living in your house** and is over 18 to spend **10 minutes** answering some quick questions online, anonymously and confidentially. **There is a prize draw.**

The purpose of the survey is to measure how people across Central Otago/Queenstown Lakes feel about climate change, tourism, infrastructure (including airports) and population growth. It will inform discussion about what people in the region want and need, and the aggregated/summarised results will be shared with the community, decision makers and the media. Importantly, **all individual responses will be confidential** and data will be appropriately protected - there is more information about this at the start of the survey.

To take part, please follow these simple steps:

- Select the person in your house next due to have a birthday and is over 18
- Scan the QR code to the right, or go to: www.bit.ly/centralotagonz
- When asked (in the survey), your "area number" is 418
- If you can't access the internet, call us on 03 669 3867 to make alternative arrangements
- On the last screen, enter our prize draw for a \$200 supermarket voucher
- Note: all answers are anonymous and your data will never be shared



Scan me to start

Senior researchers from Massey University, the University of Otago and Victoria University Wellington are also involved in leading this research project and analysing results. There is more information via the QR code/link.

Thank you for helping with this important public research.

Distinguished Professor Robert McLachlan (project lead)

Massey University - r.mclachlan@massey.ac.nz



Drofessor James Denwick

Professor James Higham University of Otago

Professor James Renwick
Victoria University, Wellington

P.S. We have significantly reduced the amount of paper we use in this study by not using envelopes.

A full copy of the survey is available online so that you can review the questions. Please note that if you input any data it will NOT be reviewed, nor will it be included in the study. This is purely for you to run through the survey yourself as if you were doing it.

Survey link (not live):

https://forms.gle/dETN5Bpcb9moYBVk7