



THE FOOD & FIBRE
YOUTH NETWORK
HE TĀTAI RANGAHUA

CLIMATE RESILIENCE WHITE PAPER

AUGUST 2023



EXECUTIVE SUMMARY

The main objective of the survey was to begin to understand the perceptions that youth within the food and fibre sector have about climate resilience, and what they think needs to be done to enable a more resilient sector. The topic of climate resilience was brought to the council's attention following the escalating frequency of extreme weather events, and climate uncertainties in New Zealand.

We aimed to collect the perspectives of youth within the Food and Fibre sector by designing an online survey and reaching target audiences through social media channels and direct networks within the council. Data was put into excel and analysed through thematic analysis.

Findings determined that youth are mostly aware of climate resilience, although individual attitudes and awareness towards becoming more resilient to climate change spanned from un-important to extremely important. The survey also highlighted many key challenges and opportunities, it was emphasised that longer-term planning, investment in infrastructure, sustainable land management and heightened community awareness should be prioritised to enhance climate resilience.

INTRODUCTION

In recent times New Zealand has experienced increasingly volatile weather patterns and severe weather events including the catastrophic Auckland Floods and Cyclone Gabrielle in 2023. New Zealand now finds itself at an inflection point regarding its underlying infrastructure and its ability to meet the needs of the future - particularly a future with climate resilience top of mind.

A recent report published by Westpac NZ, prepared by the Agribusiness and Economics Research Unit (AERU) describes New Zealand's future as one which will include more volatility in its weather patterns, whether that be extreme hot and cold temperatures, variable rainfall patterns throughout the season or increases in severe winds. These changes will ultimately impact each industry within the food and fibre sector to different degrees, but also greatly impact the communities and local economies which underpin New Zealand as a whole.

The purpose of this survey was to capture perspectives from young people in the food and fibre sector to firstly understand their concerns about the future of New Zealand's climate and understand potential strategies to further increase resilience to climate related risks. The intention is for this report to help inform future decisions about increasing New Zealand's climate resilience, whether that be from the government, corporations or small to medium enterprises.



METHODOLOGY

To elicit insights and perspectives from a broad range of young people in the sector, an online survey was utilised. The survey was designed by the Food and Fibre Youth Network Councillors and hosted within Google Forms as this was the most suitable survey type platform available at the time of survey design and launch.

The survey was distributed through councillors personal and professional networks, advertised via the Food and Fibre Youth Network LinkedIn, Facebook and Instagram. The survey was also included in the Food and Fibre Youth Network's monthly email. The survey opened for submissions on the 26th June and closed on the 31st of July.

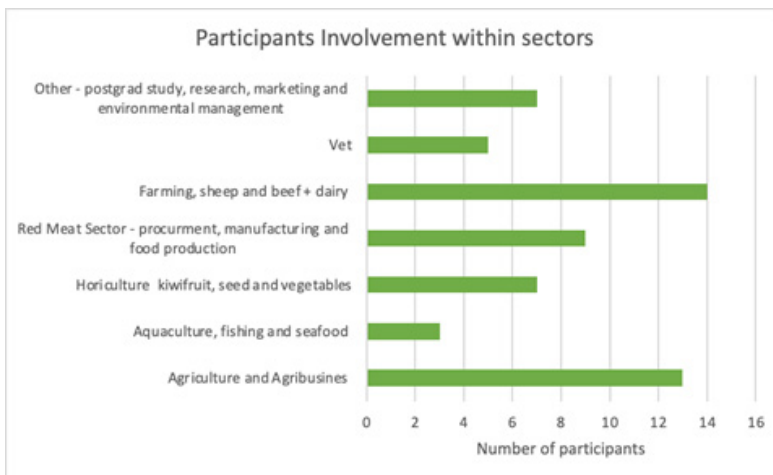
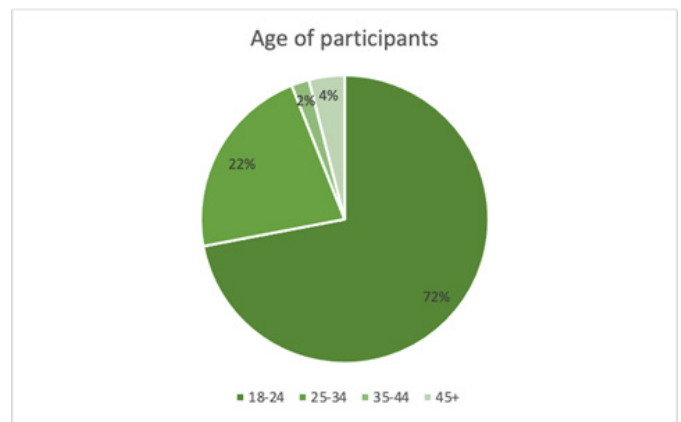
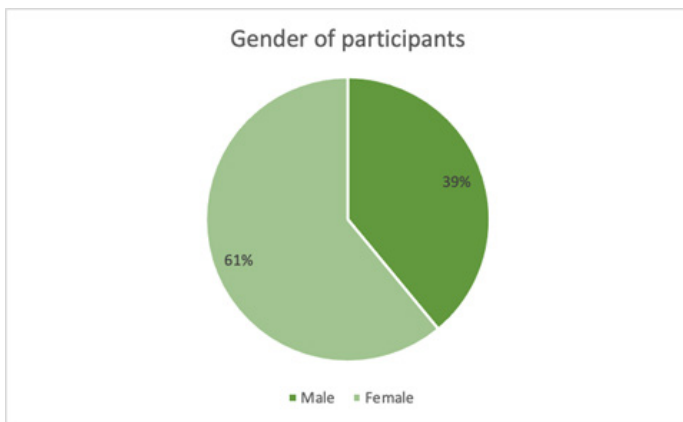
On closure of the survey, the data was critically analysed by the Food and Fibre Youth Network Councillors. The combination of quantitative questions and qualitative (open-ended) questions enabled participants to input additional detail and ensure that their perspectives were understood. Councillors were then able to use thematic analysis techniques to determine the critical insights to be included in this report.

There are no limitations of notable mention regarding the methodology used in the collection of information or writing of this report.



DEMOGRAPHICS

- 59 participants





CLIMATE RESILIENCE PERCEPTIONS

Youth within the food and fibre sector shared a similar perspective that climate resilience involves the capacity to adjust to shifts in the climate and environmental conditions, this encompasses actions to counteract and reduce the repercussions of climate change. The importance of being able to recognise opportunities that will enhance the future well-being of communities was emphasised.

Further to this, survey participants reiterated that climate resilience implies the ability of the environment, economy, and society to recover in a timely manner following extreme weather events that have occurred because of climate change. Many approached climate resilience proactively as opposed to reactively and prioritised the welfare of communities and industries.

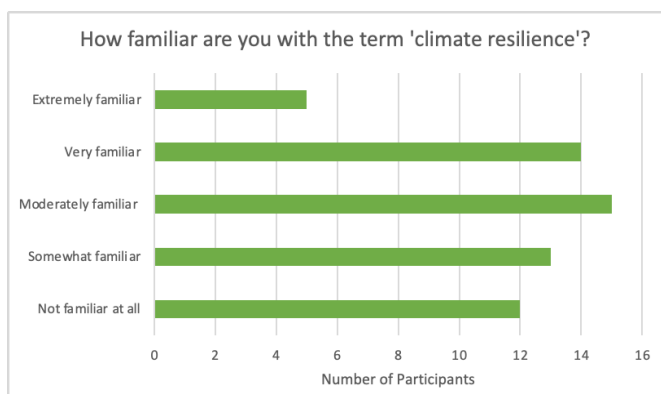
'Climate resilience relates to the ability of people and place to respond to the impacts of climate change.'

From an environmental perspective, participants stressed the significance of tailoring land use to cope with the seasons and putting measures in place to ensure the land being used for food and fibre production is more equipped to withstand extreme weather events. Maintaining a thriving ecosystem and protecting resources whilst assisting with climate adaptation to encompass both the community and ecosystem was highlighted by many participants.

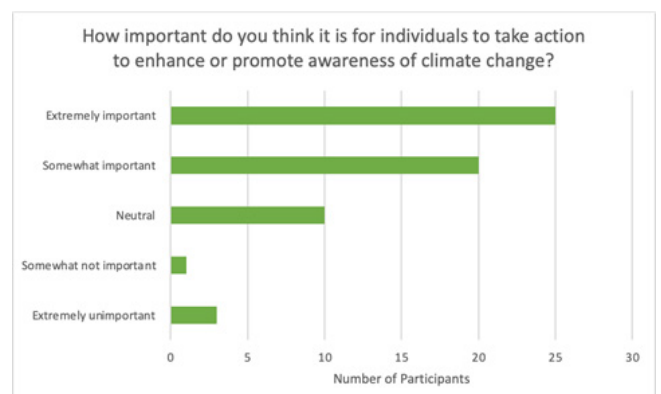
On the social front, ensuring communities and individuals were prepared for extreme events was a recurring response from participants. Additionally, it was thought that by fostering resilient systems that sustain the needs of the community while keeping them connected would contribute to overall resilience.

Interestingly, the economic dimension of climate resilience was less front of mind for youth within the food and fibre sector, while some participants acknowledged it the concern was more about environmental and social outcomes for communities.

Stats: Familiarity with Climate Resilience



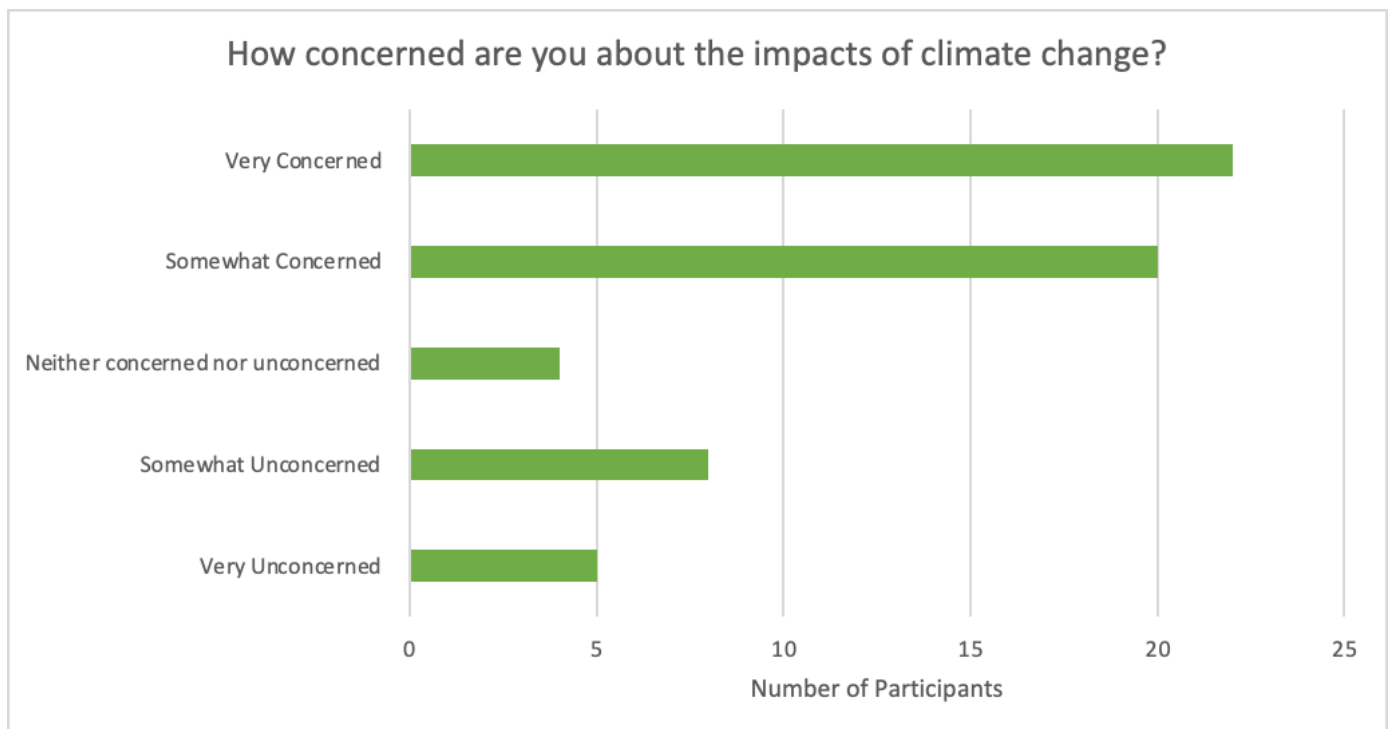
Stats: Importance





STATISTICS

Stats: On the concern of impacts of climate change





KEY CHALLENGES OF CLIMATE CHANGE

The key climate change challenges that were identified by participants underpin the multi-faceted nature of climate change and the impacts that it can have. Key challenges included environmental, social, economic, and regulatory dimensions. Addressing these challenges will require integrated strategies that involve various sectors and stakeholders.

- **Extreme Weather Events:** The increasing frequency and intensity of extreme weather events, such as storms and heatwaves, pose a significant challenge. These events lead to disruptions in various sectors.
- **Weather Variance and Volatility:** The unpredictability and fluctuation in weather patterns contribute to challenges like flooding, heavy rainfall, droughts, and heat stress on animals, affecting agricultural productivity and food production
- **Changing Sea Levels:** Rising sea levels pose a threat, leading to coastal erosion and affecting communities and infrastructure.
- **Landscape and Environmental Changes:** Altered landscapes due to changes in farm topography, shifting river courses, and stress on ecosystems impact both rural and natural environments.
- **Disruptions to the Food and Fibre Sector:** Climate change contributes to rising inequality in accessing nutrition and healthcare, affecting vulnerable populations. Mental health, well-being, and food security also come under strain.
- **Changing Regulations:** Evolving regulations, particularly concerning nutrient losses in soils, require adaptation in farming practices. However, rigid systems can hinder this necessary adjustment.
- **Carbon Emissions and Energy Production:** Concerns about carbon emissions and the use of fossil fuels for energy production are prominent. Additionally, the shift to electric vehicles, while environmentally positive, presents its own challenges.
- **Economic Impact:** The economic implications of climate change are significant, affecting livelihoods and insurance coverage, particularly in areas prone to climate-related events.
- **Sustainability and Supply Chain Impact:** Unsustainable manufacturing and waste management practices contribute to environmental issues. Disruptions to supply chains, including delays in getting products and animals off farms, further compound the challenges.



Figure 1: Word cloud showing key terms used (by frequency)



CLIMATE RESILIENCE STRATEGIES

Respondents have highlighted several key themes for enhancing climate resilience and some areas where they would like to see more research done to continue to build climate resilience. Many of these strategies and recommendations require a holistic approach to be taken and involve various stakeholders.

The themes have been listed below and many of them highlight the interconnectedness of actions necessary for climate resilience, ranging from education and awareness to infrastructural improvements and sustainable economic approaches.

- **Economic Levers:** Consideration is needed towards the economic strategies that encourage sustainable practices and support businesses transitioning to environmentally friendly models.
- **Long-Term Planning:** Focus on long-term planning that includes measures to mitigate climate effects. This includes considerations for food security and potential diversification within the food sector.
- **Infrastructure Investment:** Invest in robust infrastructure capable of withstanding extreme events, which will be crucial in maintaining functionality during climate challenges.
- **Sustainable Land Management:** Allocate funding for improved land management practices that respond effectively to climate change and its associated challenges.
- **Effective Communication:** Establish clear communication channels and mechanisms to ensure a whole community response during climate-related events.
- **Community Empowerment:** Prioritise the empowerment of individuals to enable them to respond effectively and contribute to overall resilience.
- **Local Support:** Prioritise on-the-ground efforts that support local businesses, farms, and food chains, forming a foundation for community resilience.
- **Risk Management Reform:** Reconsider how risk is managed, ensuring that communities are well-informed about their specific risks and necessary actions on a local level.
- **Awareness and Education:** Increase public awareness about climate change and educate communities about the potential impacts.
- **Research and Science:** Prioritise research to better understand climate impacts and develop evidence-based strategies for resilience.
- **Biodiversity Promotion:** Focus on increasing biodiversity, with hopes to aid erosion control and sediment management while enhancing ecosystem resilience.
- **Mitigating Further Climate Change:** Stress the importance of reducing carbon emissions and other actions to minimise the progression of climate change itself.

Effective climate resilience strategies involve collaboration across government, organisations, and communities.



CONCLUSION

While challenging times remain for the food and fibre sector, this survey has highlighted many of the concerns, perspectives and aspirations of young people that are currently contributing to New Zealand's food and fibre sector. Exploring climate resilience as a council has revealed many complexities but simultaneously indicated the potential that youth have to contribute to developing innovated solutions that have the potential to strengthen our communities and industries.

The insights gathered from this survey highlight many potential opportunities and challenges that the food and fibre sector will have to face to become more climate resilient. These findings begin to show how we can use informed decision making to secure a resilient future. The survey signifies the need for proactive measures, and recognises that climate resilience will form the basis of our sustainability journey. Several actionable themes have emerged from the survey and can start to shape what we do next as a sector to become more resilient to the climate changes we are experiencing.

The journey to become more climate resilient requires collaboration. Collaboration among government, organisations and communities is a non-negotiable. Developing actionable strategies that encompass economic, environmental, and social outcomes will be key to achieving a successful resilience strategy. It is time we strategise, prioritise, and execute measures that result in resilient communities that can cope with changing climates.

This report is an indication of youth engagement and willingness to contribute towards building a better tomorrow through innovation, adaptability and unity.



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