

Climate change in Tāmaki Makaurau:
Understanding how risks and opportunities may
be different for Māori Businesses

**Summary of Analysis for Auckland Unlimited to support the
Tāmaki Makaurau Economic Climate Change Risk Assessment**



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Executive Summary

The primary aim of this report is to provide insight of how risks and opportunities identified within the **Tāmaki Makaurau Economic Climate Change Risk Assessment (ECCRA)** (AECOM, 2021), may differ in the context of Māori business. The report also considers what drivers may be contributing to these differences. For physical climate change risks, the analysis considers drivers of vulnerability. For physical climate change opportunities, the analysis extends to looking at why Māori businesses may be more poised to take advantage of opportunities.

The ECCRA undertook an in-depth risk assessment across four priority sectors. These sectors have been summarised in Figure 1 below. Figure 2 below outlines pre-identified physical climate change risks and outlines which risks are relevant to each priority sector (AECOM, 2021).

Figure 1: Key sectors of the ECCRA that had an in-depth risk assessment undertaken (AECOM, 2021).





			
<p>Food and Beverage</p> <ul style="list-style-type: none"> Growing and producing, processing, transporting and distributing fresh, prepared and packaged food, and alcoholic and non-alcoholic beverages. 	<p>Construction</p> <ul style="list-style-type: none"> Preparation, clearing (including demolition) and development of land, and the construction, installation, alteration, repair and deconstruction of buildings, structures and infrastructure. 	<p>Screen</p> <ul style="list-style-type: none"> The industries that produce film and television content for domestic and international audiences and service international productions coming to New Zealand. 	<p>Visitor Economy</p> <ul style="list-style-type: none"> Production of goods and services for consumption by visitors. It is an amalgamation of industry sectors including accommodation, transport, attractions, and food and beverage (ATEED, 2018).

Figure 2: Physical climate change risks identified in the ECCRA (AECOM, 2021).

Risk	Food and Beverage	Construction	Screen	Visitor Economy
Maritime infrastructure and maritime transport assets are damaged or destroyed	X		X	X
Information and Communication Technology systems are disrupted	X		X	X
Electricity supplies are disrupted	X		X	X
Road networks are damaged or destroyed	X	X	X	X
Flights to and from Auckland International Airport are disrupted	X		X	X

Water supplies are reduced, disrupted, or contaminated	X	X	X	X
Built assets that are necessary for service provision are damaged or destroyed	X	X	X	X
Assets, such as construction sites, crops and livestock, are damage or destroyed	X	X		
Disruptions to systems that are sensitive to seasonality and changes in climatic parameters	X	X	X	X
Large scale ecosystem change	X		X	X
People are exposed to environmental hazards	X	X	X	X

Physical Climate Change Risks – Non-sector Specific

Māori businesses are likely to be more vulnerable to physical climate change risks. This is because of the following drivers:

- Māori businesses face challenges related to accessing financial capital (including accessing funding) (BDO, 2020).
- In most sectors, Māori businesses also appear to be operating with significantly lower margins than non-Māori businesses (TPK, Te Matapaeroa, 2019), which may also impact their ability to prepare, transition and adapt to physical climate change risks.
- Both small and medium enterprises and larger commercial entities are clearly guided by specific principles and focused on people and te taiao over profit but acknowledge the importance of profit in achieving these purposes (Interviewee(s), 2021). These principles fuel their characteristics of employing significantly more Māori within their businesses than their non-Māori owned industry businesses (TPK, 2019 and Interviewee(s), 2021). These unique ‘business as usual’ approaches influences their decision making and with smaller margins often comes greater vulnerability and fewer options to adapt.
- Resourcing gaps: finding appropriate staff to fill resource gaps is another challenge for Māori businesses (BDO, 2020 and Interviewee(s), 2021).
- Governance remains critical for Māori businesses at all levels and is highlighted as one of the major factors of influence for vulnerability and either increasing or decreasing consequences (MfE, 2019).

These challenges may equate to an increase in vulnerability, impacting upon the adaptive capacity of Māori businesses and their ability to access the resources necessary to achieve their aspirations in all areas, including reducing exposure to climate change risks.

Assessment of Risks for Māori Businesses Against Te Ora ō Tāmaki Makaurau Wellbeing Framework

The Te Ora ō Tāmaki Makaurau Wellbeing Framework (Framework) has been used as a tool to understand whether physical climate change risks may impact Māori Businesses differently from other businesses. This framework was developed in response to Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan (Auckland Council, 2020). It is therefore regionally specific and was developed with the Mana Whenua Kaitiaki forum, providing insights from mana whenua in the region.

The values and principles that underpin Te Ora ō Tāmaki Makaurau Wellbeing Framework when applied in practice are also categorised as ‘Ngā Mahi a te Ora’ (Wellbeing Activities) in the context of the framework. Considering how the identified physical climate change risks impact on these well-being activities (and particularly on Māori businesses and their owners’ ability to put these principles into practice) is an appropriate way of contextualising and considering the physical climate change risks and their impact for Māori businesses in this context. In most cases the values and principles increase the consequences these risks have on Māori businesses.

The analysis found that each of the identified physical climate change risks clearly impacts on all elements of Ngā Mahi a te Ora (Wellbeing Activities) for Māori business, therefore each risk is not considered in isolation against these principles. A broader assessment using this framework indicates that all risks identified within the ECCRA may in fact impact Māori businesses in additional ways. In most cases this increases the consequences the identified risks have on Māori businesses because these are additional considerations for Māori businesses.

Table 1 below summarises how this Framework has been used to further identify physical climate change risks across the sectors.¹ The following table discusses the ECCRA in *terms of how they relate to the Te Ora ō Tāmaki Makaurau Wellbeing Framework*.

Table 1: Summary of analysis using Te Ora ō Tāmaki Makaurau Wellbeing Framework Principles for Māori Business across the sectors.

Te Ora ō Tāmaki Makaurau Wellbeing Framework Principle	Analysis against ECCRA physical climate change risks
Manaakitanga	The risks may impact on the ability for mana whenua operated businesses to fulfil their responsibilities to care for visitors and the population of Tāmaki Makaurau. This principle also drives mataawaka businesses in the region and will have similar impacts across these sectors. Ensuring manaaki of their staff, clients and consumers will impact all sectors equally, but those who provide services to external customers will be more deeply impacted, such as Māori businesses in the visitor economy and food and beverage sectors. Generally, damaged road networks and contaminated water supplies will impact upon accessing, caring for, hosting and keeping people safe. The principle of manaakitanga means Māori

¹ This table is informed by a combination of te Ao Māori perspectives and based on the research reviewed and undertaken as detailed within the body of this report.

	are innately driven to care for those in their rohe. This culture of looking after each other will mean Māori face increased consequences if they are unable to fulfil these obligations. This culture of manaakitanga has been seen during the recent COVID-19 lockdown and associated impact period. For example, Ngāti Whātua have been distributing food parcels to their constituency.
Kaitiakitanga / tiakitanga	The risks may impact on the ability for mana whenua operated Māori businesses as well as mataawaka to fulfil their responsibilities to care for their natural environment. The consequences of larger scale physical climate change risks include infrastructure and assets being destroyed. Being able to prioritise kaitiakitanga and the environment over people, and repairing damages such as those to physical built assets will be a challenge. Additionally, the whakapapa connection between Māori and their whenua may result in additional emotional and spiritual impact as Māori experience these physical impacts on their whenua. There may also be conflict between Māori and tau iwi approaches: such as wanting areas protected against coastal inundation and allowing natural reclamation by the sea. This issue is particularly relevant to mana whenua.
Whanaungatanga	Impacts on connectivity will impact the physical outworking of whanaungatanga in some cases and the ability for Māori businesses to rely on their existing networks. For example, disruption of ICT systems and road networks will impact physical and digital kanohi-ki-te-kanohi interactions that Māori businesses rely upon. The ability to hold and attend tangi will also be impacted, and in turn this will have a significant negative impact for Māori. This was a challenge that was experienced during the recent COVID-19 lockdowns.
Rangatiratanga	All physical climate change risks identified may impede the ability for Māori businesses to assert their rangatiratanga: to be leaders in their industry and participate in their business communities. With the consequences of larger scale physical climate change risks such as infrastructure and assets being destroyed, and potential emergencies resulting, exercising rangatiratanga will need to be intentional and provide opportunity for Māori businesses to lead across their sector.
Mātauranga	Expressing, educating, and enabling the use of mātauranga in relation to stories, whenua and taonga will be compromised within industries such as visitor economy and food and beverage, where these physical climate change risks typically occur. Damaged road networks will impact upon accessing and engaging with clients and sharing mātauranga, knowledge systems and practices which form part of the experiences Māori businesses offer.
Ōritetanga and Tōnuitanga	Social equity will be further compromised within Māori businesses. While some businesses have both support networks and access to capital, others do not. This inequity will be further entrenched through the identified differences in operational practices and environment of Māori businesses. This will compromise the ability of Māori businesses to enhance the wellbeing of whanau that they both support and serve.

Physical Climate Change Risks – Sector specific

Table 2 below summarises the sector-specific risks for each priority sector.

Table 2: Summarising the risk considerations for Māori Businesses within the ECCRA Sectors

Sector	Summarising the risk considerations for Māori Businesses within the Sectors
Food and Beverage	<ul style="list-style-type: none"> • The presence of fisheries and aquaculture as a subsector within the food and beverage sector lifts the relevance of risks to maritime infrastructure and maritime transport assets being damaged or destroyed, due to significant Māori ownership of assets within this subsector (KPMG, 2020). This is a significant risk for fisheries assets, ports and vessels and may impact directly on supply chain, catch, business continuity and profit. • Large scale ecosystem change increases the risk for Māori with commercially valuable Quota Management System (QMA) species migrating south, out of northern QMAs. This may have a significant impact on Māori fisheries businesses and shareholdings (KPMG, 2020). This is reduced by the fact that 20% of the new species quota will be transferred to Māori, but with close to 50% ownership in current species, this loss has the potential to significantly impact Māori (Te Ohu Kaimoana, 2017).
Construction	<ul style="list-style-type: none"> • On the basis of the more limited diversification of business interests within Māori entities in the Tāmaki Makaurau region (MBIE, 2015, TPK, Te Matapaeroa, 2019) and the resulting consequences of these risks all being highly relevant, the risk for Māori may be increased. With both large numbers of Māori employees in the industry (MBIE, 2015) as well as Māori owned businesses, alongside the significant iwi/hapū asset base in the sector (Interviewees, 2021, Ngāti Whātua ō Ōrakei and Waikato-Tainui Annual Reports), the consequences for Māori business across all relevant physical climate change risks may be significant. • Given the value of the industry to the Māori economy and the factors detailed above the Māori businesses in the sector may have increased vulnerability. • However, the values baseline of operations for most Māori businesses (Interviewees, 2021), often with a key focus on environmental impacts, means that they may be acknowledging, prioritising and planning for the identified risks to the industry.
Screen	<ul style="list-style-type: none"> • The non-sector specific barriers already identified above apply to the screen industry.

Visitor Economy	<ul style="list-style-type: none"> • The tourism sector is heavily reliant on Māori taonga, sites of significance, culture and people in Tāmaki Makaurau and the ability for Māori businesses to be front and centre in telling their own stories and histories. This reliance within the tourism sector may only increase over time. With technological advancements and increases in commercial asset bases, these business opportunities may increase thus increasing their exposure. • The consequences for Māori further increase due to the emotional and cultural connection to these sites over and above the financial impacts of changes to business operations that they are dependent on. • The importance of the industry to Māori business and culture within the region is noted, due to the number of Māori businesses and iwi and hapū commercial entities that exist within the sector and subsectors (TPK, Te Matapaeroa, 2019).
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Physical Climate Change Opportunities – Sector specific

Māori businesses may also be more resilient to physical climate change risks and may in turn be positioned to benefit from opportunities arising from physical climate change risks. Data sourced through both desktop literature reviews and interviews has identified the following sectoral opportunities for Māori business from physical climate change risks (see Table 3). The opportunities identified within the ECCRA all apply (AECOM, 2021), and these opportunities may not be specifically unique to Māori business. The report considers the opportunities identified within the ECCRA alongside the unique contexts, operational nuances and areas where Māori businesses show resilience. In addition, the opportunities have been further highlighted either within the research or during interviews.

Table 3: Physical Climate Change Opportunities.

Sector	Physical Climate Change Opportunity
All	<ul style="list-style-type: none"> • Opportunity for unique Māori provenance stories throughout export markets. • Opportunity for remote Māori businesses to secure more efficient and reliable power supply through increased onsite electricity generation.
Food and Beverage	<ul style="list-style-type: none"> • Creating plant-based alternatives to meat through driving greener production systems aligns well with obligations as kaitiaki.
Construction	<ul style="list-style-type: none"> • Māori have an increased focus on protecting their people and using valuable sources of profit to achieve their aspirations for their people. They are likely to be involved in innovative construction technologies as Māori are keen early adopters of technological advancements. • Opportunity for Māori businesses to work together in sustainable infrastructure ventures, such as green waste and recycling – also opportunities to partner/procure this work to others.

Visitor Economy	<ul style="list-style-type: none"> • Increased opportunity for authentic cultural tourism owned and operated by Māori. • Enhance connections between the Visitor Economy and Māori research institutions, for Māori businesses to benefit from the increased funding for mātauranga Māori or Māori perspectives in climate adaptation/mitigation-based research, as well as these new career pathways being developed. This evolving knowledge economy provides opportunity for enhancing and growing the visitor economy.
Screen	<ul style="list-style-type: none"> • Increased opportunities for Māori artists and creatives both on and behind the screen. • Increased opportunity for advancing the knowledge economy and mātauranga Māori within this, including owning these stories and their presence in the industry. • To strengthen more digital or weightless exports and supporting development of these industries.

Transitional Climate Change Risks and Opportunities

Although this review prioritised physical climate change risks, transitional climate change risks were also considered in a Māori context. For Māori, many of the consequences for transitional climate change risks identified were general rather than sector specific. Often these consequences were related to the vulnerability drivers identified above in terms of financial challenges. With Māori small and medium enterprises experiencing greater financial exclusion (TPK, Microfinance, 2019), their access to additional capital required to transition may be limited. Access to human capital may also be difficult for Māori businesses, especially where knowledge gaps and resources are already stretched. This labour gap may be compounded where Māori have not been supported through the necessary educational pathways to meet the future needs of the market.

The opportunities arising from the transitional climate change risks identified in the ECCRA and from the realities of the changes that climate mitigation will bring are significant for Māori across all of the sectors reviewed.

Opportunities from these Challenges

Facing these challenges provides an opportunity to enable and prioritise further work to resolve these issues in a consistent manner. This will assist future work programmes and kaupapa within Auckland Unlimited to be better aligned to meet the needs of Māori business. It will enable effective planning, policy and projects to specifically reach Māori business for positive impact.

Opportunities to work with Māori advisors already exist within Auckland Unlimited. Using these networks to co-design future projects may ensure clarity and consistency of approach for future work in these areas. Further, working to create specific connections with iwi and hapū in the region to gain insights into their business profiles, needs and aspirations, as well as the development of localised transition plans alongside mana whenua, may improve data availability in addition to increasing Māori businesses resilience. Undertaking the same approach for each industry sector and reaching and connecting with Māori businesses to gain thorough and specific insights into their needs and their contributions to the region, will improve relationships as well as improving current data availability.

A focus on seeking Māori specific data across all industries and clearly defining what a Māori business is to Auckland Unlimited should be prioritised. This definition should be developed collaboratively with internal and external insights. These are by no means new challenges or opportunities, but will when addressed, go a long way to better serving Māori businesses within Tāmaki Makaurau.

Limitations

In this section, we have outlined the challenges that have impacted the assessment of the report. It is important to understand these challenges, and the report to be reviewed with them in mind. These need noting to ensure this report is understood and considered in context.

There was no universal agreement from a range of sources as to what constitutes a Māori business. The differing ways that local and central government and their advisors, Māori organisations and Māori business owners qualify what constitutes a Māori business, differs considerably. We have therefore had to use multiple definitions of what constitutes a Māori business, depending on the source used. This issues has had a significant impact on the way in which this review could be undertaken and on its output. The inability to align these differences with the available data and how it was collected, as well as the lack of this data being regionally specific, compounded this challenge further.

There were also conflicting perspectives around what should constitute a Māori business within the context of this report, mana whenua or mataawaka, within the Auckland region and how these perspectives should be prioritised.

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1. Introduction

1.1 Background

The Economic Climate Change Risk Assessment (ECCRA) was undertaken in two distinct phases. The Phase 1 assessment was undertaken between April and June 2020. The Phase 1 assessment focused on climate change risks and opportunities to four priority sectors: construction, food and beverage, visitor economy, and screen sectors. Phase 1 identified and evaluated risks and opportunities that may arise from hazards that are caused, exacerbated or influenced by climate change. It also identified risks and opportunities that may arise from transition to a low-carbon economy.

Phase 2 has expanded this assessment to include the following activities:

- Undertaking a risk screen of the advanced manufacturing and technology sectors not assessed in Phase 1 of the ECCRA against physical climate change risks identified in Phase 1 of the ECCRA;
- Understanding how identified risks and opportunities may be different for Māori businesses;
- Conducting broader engagement with business on climate risks and adaptation, including engagement specifically targeted at Māori businesses;
- Exploring literature available on financial costs of not transitioning; and
- Synthesising adaptation actions (both planned and underway) identified through engagement.

1.2 Purpose of Report

The key purpose of this review is to assist with understanding whether the risks and opportunities for businesses identified in the ECCRA, are the same for Māori businesses, and if not, how they differ. This summary report delivers the findings from Whetū Consultancy Group (Whetū), including insights gained through interviews with targeted Māori businesses in the rohe.

1.3 Methodology

The ECCRA undertaken by AECOM in 2020 developed a methodology which was guided by both national and international best practice for climate change risk assessments. Refer to the ECCRA Assessment Methodology Statement for details of the methodology utilised within the ECCRA (AECOM, 2021).

This work contributes to the ECCRA undertaken by AECOM in 2020 and builds upon the assessment framework and methodology used. Whetū have worked with AECOM to understand the methodology used and to assess Māori impacts and opportunities within this context. There are multiple methodologies that could have been used in the risk assessment to include a te Ao Māori lens as part of the risk rating process. We considered a number of frameworks from a conceptual viewpoint, rather than as an assessment tool, as the methodology for the overarching risk assessment (ECCRA) had already been undertaken. Frameworks we considered included the He Ara Wairoa used by the Climate Change Commission (previously developed for use by Treasury).

The resulting methodology included a whakaaro Māori baseline, and incorporated an overarching test

or measure of impact through the Te Ora ō Tāmaki Makaurau Wellbeing Framework, developed alongside the Mana Whenua Kaitiaki Forum in response to Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan. Further detail around this framework is noted below. This framework is regionally specific and appropriate as an end point measure of the assessment.

As part of this assessment a range of values, knowledge sets, quantitative and qualitative data (including interview data) have been used. To enable a fuller representation of aspirations and values from a Māori perspective (as best practice suggests) these perspectives and whakaaro should be considered alongside economic modelling (Awatere et al, 2018).

A series of one-on-one interviews were undertaken to:

- connect and gain further insight about business operations; and
- to discuss the findings of the ECCRA with Māori businesses identified within the rohe.

These findings have been incorporated into tables throughout the report. A wide range of stakeholders have been interviewed across the priority sectors. It is important to note that interviewees were those willing to give their time towards this kaupapa, under some constrained circumstances, including timing and an evolving COVID-19 environment. Due to the limited number of interviewees within each sector, it would be inappropriate to claim the interview data as being indicative or to form generalisations around Māori business within any sector or subsector. However, this data has been included as it provides a level of richness and insights into Māori businesses operating within these sectors, or those working alongside Māori businesses within these sectors.

We considered te ao Māori perspectives through all these data sources and then applied Te Ora ō Tāmaki Makaurau Wellbeing Framework as detailed below.

1.3.1 Assessment of Risk, Consequence and Vulnerability for Māori businesses

According to the New Zealand Climate Change Risk Assessment, vulnerability is influenced by socio-economic and cultural processes (including adaptation and mitigation actions and governance), which can increase or decrease the consequences (and therefore the risk) resulting from exposure to a hazard (MfE, 2020). One of the primary inputs into the ECCRA and application of the consequence criteria was in relation to the exposure of a subsector. Identified risks were evaluated as a function of the number of businesses exposed within a subsector, or the percentage of economic activity exposed within the subsector, and the severity of the consequences that stem from the exposure.

Where Māori businesses comprise a disproportionately greater percentage of that economic activity exposed within any subsector, this increases the exposure for Māori businesses in comparison to non-Māori businesses in the subsector. This disproportionate impact has a greater impact on the Māori economy as a whole. This increased exposure for Māori business may not necessarily mean an increase in the consequence rating, but it depends on how the scale and impacts of each risk interact to form the overall risk rating. Given the very minimal amount of data available to qualify this assessment, using the original consequence criteria used in the ECCRA was not the primary input into our assessment. Instead a consideration of contributing information such as employees in the sector, knowledge of iwi and hapū interests in the sector, as well as the importance of the role that Māori play

in the sector (ie cultural inclusion in tourism). This is therefore a qualitative and subjective assessment.

1.3.2 Phase One Assessment

The first phase of our assessment involved considering what differences there were between Māori businesses and non-Māori businesses that might impact the extent or gravity of any of the identified physical or transitional climate change risks from the ECCRA.

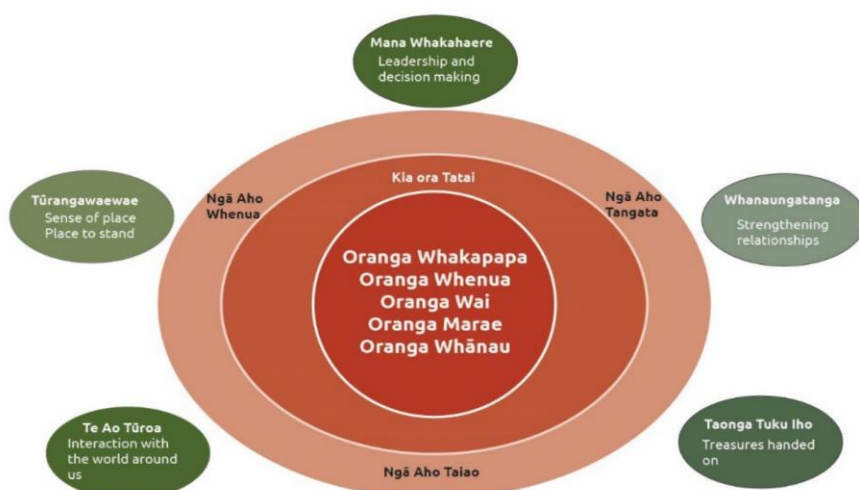
This phase was informed by the significant literature and knowledge that exists around Māori perspectives, te Ao Māori, tikanga Māori and kaupapa Māori, in so far as it relates to the contexts of climate change, the environment and te taiao. Detail supporting some of these contributing perspectives is summarised and included as *Appendix A*.

Further, an assessment against the principles of Te Ora ō Tāmaki Makaurau Wellbeing Framework was undertaken, against the identified risks. Te Ora ō Tāmaki Makaurau Wellbeing Framework was developed in response to Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan (Auckland Council, 2020). It is therefore regionally specific and was developed with the Mana Whenua Kaitiaki forum, providing insights from mana whenua in the region. Key tenets of the framework include:

- Ngā Aho Taiao - The ability and capacity of te taiao to sustain and maintain whole living systems and regenerate its own mauri, while contributing to the mauri of people and land.
- Ngā Aho Whenua - The ability and capacity of the whenua to sustain and maintain whole living systems and regenerate its mauri, while contributing to the mauri of people and nature.
- Ngā Aho Tangata - The ability and capacity of tangata to sustain and maintain their mauri, while contributing to the mauri of the land and nature. For mana whenua, this relates to their ability and capacity to maintain, sustain and regenerate their specific whakapapa relationships with land, nature and people of Tāmaki Makaurau (Auckland Council 2020).

Figure 3: Te Ora ō Tāmaki Makaurau Wellbeing Framework.

Te Ora ō Tāmaki Makaurau Wellbeing Framework



This provides a grounding point for considering and assessing whether the physical climate change risks identified within the ECCRA impact Māori businesses within the region in different ways.

The framework connects directly to the ability and capacity of communities to maintain, sustain and regenerate whānau and community well-being within Tāmaki Makaurau. The business community is a critical component of this community, providing income, employment and social support. The impacts and risks identified for Māori businesses directly impact on their well-being as defined within the framework.

Maintaining the importance of using Māori values and principles when considering the impacts and risks of climate change, as well as in framing our solutions, is critical.

“The framework is structured around core Māori values and principles derived from Māori views of the world. These values and principles provide an insight into Māori concepts and beliefs anchored upon intergenerational symbiotic relationships between people, place, nature and the wider universe (whole living systems) and the reciprocal responsibilities and obligations to care for, protect, activate, maintain and regenerate these whakapapa relationships.” (Auckland Council, 2020).

The values and principles in the well-being framework are:

- manaakitanga
- kaitiakitanga / tiakitanga
- whanaungatanga
- rangatiratanga
- mātauranga
- ōritetanga
- tōnuitanga.

These values and principles when applied in practice, are also categorised as ‘Ngā Mahi a te Ora Wellbeing Activities’ in the context of the framework. Consideration of the impacts of the physical climate change risks identified on these well-being activities (and particularly on Māori businesses and their owners’ ability to put these principles into practice) is an appropriate way of contextualising and considering the physical climate change risks and their impact in this context.

To gain further insight, one-to-one or small group interviews were undertaken with identified and willing Māori businesses within the sectors in the region. These included business owners or representatives of organisations that work alongside Māori businesses within these sectors. A record of key insights from the interviews is included throughout this report.

1.3.3 Phase Two Opportunities

This phase included considerations of how these perspectives and inputs from Phase One may inform and provide strategic opportunity that could mitigate some of the risk and consequences identified for Māori businesses within these sectors. This is an important element of producing research outputs that don’t result in deficit perspectives, but instead provide useable outputs for Māori that help to inform strategy and intend to navigate pathways to success.

In this instance, we included the development of fictional future scenario settings for each sector to connect the sector opportunities and identify how Māori businesses within the sector might look in the future. This phase provides alignment with intergenerational aspirations and endpoints, rather than shorter term business horizons. It includes knowledge of existing aspirations, operations, areas of interest and asset bases, and then considers opportunities that were highlighted either within the

ECCRA, interviews or literature, that might align for Māori businesses within these sectors.

1.4 Limitations

This report does not purport to be the only Māori perspective, nor does it represent the perspectives of any iwi, hapū or whanau in the Tāmaki Makaurau region or across Aotearoa. The assessment was limited by the data available. Further limitations existed with the interview and engagement process taking place during and post the 2021 Auckland COVID lockdowns which threatened to impact on engagement and the ability to easily undertake face-to-face engagement.

The availability of data for Māori businesses within sectors was limited and as a result, assumptions and conclusions had to be drawn from a mixture of qualitative and quantitative data, literature, and desktop research. Data sources used were not all able to align with the same data groupings and data sets used for the ECCRA. The literature review revealed that inconsistencies exist with the way available data collected had been classified, and grouped, which meant that pulling out industry specific data was only possible for two of the sectors analysed. The availability of Māori business data, by sector in addition to location, was negligible.

These factors all impacted the assessment of the report, and the report should be reviewed with them in mind.

In this section, we have outlined the challenges that have impacted the assessment of the report. It is important to understand these challenges, and the report to be reviewed with them in mind. . Further, there were differing or additional methods of classifying Māori businesses. Based on Te Puni Kōkiri's (TPK) Te Matapaeroa 2019 report, Māori businesses in the Tāmaki Makaurau region for example, jumped from 27 identified using Stats NZ data to 1389 using a different definition and data sources (TPK, 2019).

1.5 Defining Māori Business

The issues identified that prevented providing a higher level of confidence in the data analysed included the definitions and way that datasets had been grouped and categorised. For example, defining what constituted a Māori business for the data used was an issue.

There are a number of ways that Māori business is and can be defined. TPK has defined a Māori business as “a business that is 50% or more owned by Māori”. ‘Te Matapaeroa 2019 - Insights into Māori business’, with the most detailed data that we could apply to this review, states their definition for Māori business as being:

- Using ‘Statistics NZ’ identifier (1,300 businesses) – A business is an enterprise and is flagged as Māori by Statistics NZ and used in their Tatauranga Umanga Māori reporting
- Using ‘Majority Shareholders are Māori’ identifier (8,800 businesses) – A business where at least 51% of wages paid to directors, partners or active shareholders are to individuals of Māori ethnicity or descent.

This is the context of most of the data reviewed. For the purpose of our analysis we have included the following groupings in order to provide a Māori lens. Due to the internal and external influences,

particularly for Māori commercial entities, we needed to consider the risks for Māori businesses from a number of perspectives as detailed in

Table 4.

Table 4: Māori Business Classifications

Māori Business			
Iwi or Hapū	Māori Commercial Entities	Whanau Trusts or Collective Landholders	Māori owned Private Businesses
The majority of the businesses owned within this space are known to be Māori businesses within the data and statistics. The two are often seen as interchangeable but they have clearly defined roles and purposes within this space.		These may not feature within Māori business data. They are not operated like traditional businesses unless a business operation is taking place on or connected with the land.	Many of these businesses appear to have been overlooked in traditional data gathering or missed but contribute to a significant and growing part of the Māori economy.
In this context they are the owners of assets impacted by changing climate and also integral decision makers for some commercial entities. They are Māori collectives or natural groupings and for the purpose of Western ownership of land, have been required to established Post Settlement Governance Entities (PSGE's) as organisations that receive and administer land and other assets resulting from Treaty settlements or through directed acquisition.	These are the entities that operate commercial interests on behalf of iwi, hapū or other post settlement governance entities. They are the frontline of business operations and decision making at management level. Some larger entities have their own governance board, others are governed by the board of their PSGE.	These are collective landholders or shareholders of parcels of land mostly held under Te Ture Whenua Māori Act. These entities are normally whanau connected groups that operate outside of iwi or hapū settlement contexts, to utilise their land for the benefit of their greater whanau, albeit within the confines or restrictions of Te Ture Whenua Māori Act.	These are private businesses that will be operating independently of PSGE's and other Māori organisations. Essentially, they are business owners who identify as being Māori.

Iwi and hapū and their PSGE's play a significant role in governance and strategic direction, setting the expectations for the commercial entities, as their work helps to fulfil the aspirations of the iwi or hapū. Many of these aspirations and values baselines, provide additional expectations, reporting

components and KPI's for commercial entities and their business operations. How these two facets of Māori Enterprise operate together is what makes them unique and sets them clearly apart from other mainstream corporates operating in the identified sectors.

2. Review and Analysis

2.1 ECCRA Risks Identified

2.1.1 Physical Climate Change Risks

The physical climate change risks identified within the ECCRA are based on a future emissions scenario which was based on projections prepared for the Tāmaki Makaurau region by Pearce (et al., 2018). The high emissions scenario is characterised by the following, according to the ECCRA:

“...by 2110, the Auckland region is projected to be 3.25-3.75°C warmer than at the beginning of the century. Most of Auckland is projected to experience more than 90 hot days per year (days > 25°C) and there may be approximately 12 more days with very high or extreme fire danger. The volume of annual rainfall is likely largely unchanged, but more rainfall is likely to occur in autumn, and less in spring. When rain falls, it is likely to be more intense. Most of the Auckland region will experience between 12-21 more dry days per year. Oceans will be more acidic, and sea levels will be 1.2 metres higher than the 1990s.”

The resulting risks have been identified in the ECCRA and are summarised in the following diagram.

Figure 4: Summary of identified physical climate change risks for Tāmaki Makaurau.



These identified risks are based on science, projections and modelling, and on this basis these physical climate change risks are assumed to be the same for Māori businesses. As referred to in Section 1.3, the risk identification process has followed the methodology used by the National Climate Change Risk Assessment. Further detail around these risks and what they encompass can be found in the ECCRA at pages 10-16 (AECOM, 2021).

The framework applied within the ECCRA rated risks in accordance with a risk framework which is described in detail in Appendix A of the ECCRA report (AECOM, 2021). The framework accounted for both the likelihood of the occurrence of a hazard, or series of hazards that give rise to the risk. It includes the scale and intensity of the impact of the risk. The identified risks were based on the number of businesses exposed within a subsector, or the percentage of economic activity exposed within the subsector, and the severity of the consequences that stem from the exposure.

The ECCRA provides these risk ratings (intentionally) in isolation and resists leaning into other discussions associated with these timelines. Technology particularly may have a significant influence on all risk ratings in the context of these scenario timelines, due to the possibility of technological advancements that could partially or wholly reduce these risks. For example, innovative construction materials fabricated here so require no importation from China is required, thus supply chain risks eliminated/reduced. Factors such as these are not considered. The table below indicates how or whether these risks were assessed in the ECCRA as being applicable for each sector.

Table 5: The applicability of risks to the four sectors of Tāmaki Makaurau economy assessed (AECOM, 2021).

Risk	Food and Beverage	Construction	Screen	Visitor Economy
Maritime infrastructure and maritime transport assets are damaged or destroyed	X		X	X
Information and Communication Technology systems are disrupted	X		X	X
Electricity supplies are disrupted	X		X	X
Road networks are damaged or destroyed	X	X	X	X
Flights to and from Auckland International Airport are disrupted	X		X	X
Water supplies are reduced, disrupted or contaminated	X	X	X	X
Built assets that are necessary for service provision are damaged or destroyed	X	X	X	X
Assets, such as construction sites, crops and livestock, are damage or destroyed	X	X		
Disruptions to systems that are sensitive to seasonality and changes in climatic parameters	X	X	X	X
Large scale ecosystem change	X		X	X
People are exposed to environmental hazards	X	X	X	X

The following review (in Section 3) has considered how Māori business characteristics, challenges and operating rationale impact in the context of this ECCRA. For further detail on Māori business characteristics, challenges and operating rationale and insights see *Appendix C*.

3. Risk Assessment

3.1 Summary of Assessment of Risks for Māori Businesses Against Te Ora ō Tāmaki Makaurau Wellbeing Framework

Each of the identified physical climate change risks clearly impacts on all elements of Ngā Mahi a te Ora (Wellbeing Activities) for Māori businesses, therefore each risk is not considered in isolation against these principles. A broader assessment using this framework indicates that all risks identified within the ECCRA may in fact impact Māori businesses in additional ways. Because these are additional considerations for Māori businesses, in most cases this increases the consequences the identified risks have on Māori businesses.

Table 6: Summary of assessment of risks for Māori Businesses against Te Ora ō Tāmaki Makaurau Wellbeing Framework Principles.

Risk	Impact on Ngā Mahi a te Ora for Māori Business
<p>Risk 1- Maritime infrastructure and maritime transport assets are damaged or destroyed</p> <p>Risk 2- Information and Communication Technology systems are disrupted</p> <p>Risk 3- Electricity supplies are disrupted</p> <p>Risk 4- Road networks are damaged or destroyed</p> <p>Risk 5- Flights to and from Auckland International Airport are disrupted</p> <p>Risk 6- Water supplies are reduced, disrupted or contaminated</p>	<p>Manaakitanga - These risks may impact on the ability for mana whenua operated businesses to fulfil their responsibilities to care for visitors and the population of Tāmaki Makaurau. These principles also drive mataawaka businesses in the region and will have similar impacts across these sectors. Ensuring manaaki of their staff, clients and consumers will impact all sectors equally, but those who provide services to their customers externally will be more deeply impacted, such as Māori businesses in the visitor economy and food and beverage sectors.</p> <p>Generally, damaged road networks and contaminated water supplies will impact upon accessing, caring for, hosting and keeping people safe. The principle of manaakitanga means Māori are innately driven to care for those in their rohe. This culture of looking after each other will mean Māori face increased consequences if they are unable to fulfil these obligations. This culture of manaakitanga has been seen during the recent COVID-19 lockdown and associated impact period. For example, Ngāti Whātua distributing food parcels to their constituency.</p> <p>Kaitiakitanga / tiakitanga – These risks may impact on the ability for mana whenua operated Māori businesses as well as mataawaka to fulfill their responsibilities to care for their natural environment. The consequences of larger scale physical climate change risks include infrastructure and assets being destroyed. Being able to prioritise kaitiakitanga and the environment over people and repairing damages such as those to physical built assets will be a challenge. Additionally, the whakapapa connection between Māori and their whenua may result in additional emotional and spiritual impact as Māori</p>

<p>Risk 7- Built assets that are necessary for service provision are damaged or destroyed</p> <p>Risk 8 - Assets, such as construction sites, crops and livestock, are damaged or destroyed</p> <p>Risk 9- Disruptions to systems that are sensitive to seasonality and changes in climatic parameters</p> <p>Risk 10- Large scale ecosystem change</p> <p>Risk 11- People are exposed to environmental hazards</p>	<p>experience these physical impacts on their whenua. There may also be conflict between Māori and tau iwi approaches ie: such as wanting areas protected against coastal inundation and allowing natural reclamation by the sea. This issue is particularly relevant to mana whenua.</p> <p>Whanaungatanga – Impacts on connectivity will impact the physical outworking of whanaungatanga in some cases and the ability for Māori businesses to rely on their existing networks. For example, Disruption of ICT systems and road networks will impact physical and digital kanohi-ki-te-kanohi interactions that Māori businesses rely upon. The ability to hold and attend tangi will also be impacted, and in turn this will have a significant negative impact for Māori. This was a challenge that was experienced during the recent COVID-19 lockdowns.</p> <p>Rangatiratanga – All physical climate change risks identified may impede the ability for Māori businesses to assert their rangatiratanga: to be leaders in their industry and participate in their business communities. With the consequences of larger scale physical climate change risks such as infrastructure and assets being destroyed, and potential emergencies resulting, exercising rangatiratanga will need to be intentional and provide opportunity for Māori businesses to lead across their sector.</p> <p>Mātauranga – Expressing, educating, and enabling the use of mātauranga in relation to stories, whenua and taonga will be compromised within industries such as visitor economy and food and beverage, where these physical risks typically occur. Damaged road networks will impact upon accessing and engaging with clients and sharing mātauranga, knowledge systems and practices which form part of the experiences Māori businesses offer.</p> <p>Ōritetanga and Tōnuitanga - Social equity will be further compromised within Māori businesses. While some businesses have both support networks and access to capital, others do not. This inequity will be further entrenched through the identified differences in operational practices and environment of Māori businesses. This will compromise the ability of Māori businesses to enhance the wellbeing of whanau that they both support and serve.</p>
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All physical climate change risks identified within the ECCRA may have additional impacts for Maori businesses, which increases the range of impacts such businesses are likely to face. The wellbeing activities identified through the Te Ora o Tāmaki Makaurau Wellbeing Framework are also the tools of action that will enable and strengthen Māori businesses to overcome and endure through these predicted times of crisis and exposure to these risks, and provide opportunities across the sectors.

3.2 Māori Business Sector Summaries

Each sector below includes a summary of insights gained during the interviews which informs about challenges and opportunities for Māori businesses across these sectors and also notes perspectives on which physical climate change risks identified in the ECCRA are of most significant concern to those

interviewed. Opportunities are identified within each sector through a future scenario and opportunities table (orange). For an overview of the Māori economy in the Tāmaki Makaurau region refer to *Appendix D*.

3.2.1 Food and Beverage

For the purpose of the ECCRA the Food and Beverage sector comprised of the following subsectors: manufacturing, wholesale, food technology, supply chain, horticulture, viticulture and agriculture, including fisheries and aquaculture.

“A realisation that I am just a dot in the whole scheme of things. That’s where non-Māori don’t necessarily connect. With their pepeha and their whakapapa to the whenua.” - Interviewee

3.2.1.1 Manufacturing, Wholesale, Food Technology, Supply Chain

It was difficult to gain insights or identify any detailed existing data in relation to Māori businesses in Auckland in this subsector, although one interviewee operated within this sector and provided solid insights into the risks for them within their business as well as operating context. Targeted research in this area is required. The Māori business context continues to apply to businesses within these sectors.

3.2.1.2 Agriculture and Horticulture

Nationally, more than 12% of Māori-owned SMEs are in the Agriculture, Forestry and Fishing industries with this increasing to 23% for Māori entities (Stats NZ, 2019). Māori play a significant role in this sector, both as producers and landowners. For Māori commercial entities primary production and fisheries generally provide significant income to support iwi and hapū aspirations for post-settlement entities within fisheries quota allocations and through agricultural operations on Māori land. The interests that Māori hold within the agricultural industry are significant nationally.

Overall, the Māori share of primary assets is upwards of \$13 billion (including forestry and fisheries) (KPMG, 2020). Within national level agricultural interests this is significant.

A number of iwi and hapū in the Tāmaki Makaurau region indicate that they operate farming enterprises, including Ngāti Paoa with a \$20mil farming asset base (Ngāti Paoa, 2016). The reality of much of the Tāmaki Makaurau region being more urban means that iwi/hapū in the area are less likely to have agricultural operations. Treaty Settlements and the desire for Māori to work with their whenua mean that ownership of primary production businesses in the future may only increase within the scenario timeframes where land becomes available in the outer Auckland regions.

3.2.1.3 Fisheries

For many iwi and hapū a significant part of their asset base consists of fisheries quota, with the information available around the iwi and hapū in the region indicating that for some, over half of their asset base consists of fisheries quota, alongside direct income from their allocated shares in Aotearoa Fisheries (Ngāti Wai, 2019).

Under two national fisheries settlements in 1989 and 1992, Māori were granted control over one-third of New Zealand's commercial fisheries. After over a decade of debate about how this allocation could be fairly undertaken, in 2004 the Māori Fisheries Act saw a combination of allocation rationale based on percentage of tribal coastline as well as numbers of tribal members in relation to deep-sea fisheries.²

Essentially, the settlement has resulted in quota being owned by all iwi but with most iwi in the Tāmaki Makaurau region not owning enough to viably operate in the industry alone. Instead the quota is leased to other operators in the industry, often competing with the 100% collectively Māori owned Moana New Zealand and the 50% owned Sealord. Over 97 species or groups of species are managed as 633 fish stocks under the QMS (Te Ohu Kaimoana, 2017). This is important to note given the changes predicted for fish stocks with climate impacts as well as the risks around eco-system change.

It is difficult to access a breakdown of who and where these Māori-owned assets operate. It is also difficult to uncover which Auckland-based companies lease quota from Māori, aside from those who publish it in detail in their annual reporting. Ngāti Wai indicate in their Annual Report (2019) that their asset base includes \$24mil of fishing quota as well as \$1mil in Aotearoa Fisheries Income Shares. According to the Companies Office, Ngāti Whātua holds the 15th largest share in the company of 1.54%. In the absence of consolidated regionally specific data, if an analysis is made of the overall value of the asset base owned by Māori collectively it can be assumed that any impacts to the industry may impact Māori Treaty Partners and Commercial entities disproportionately compared to the remainder of the sector.

Annual Revenue of the top 4 fisheries is as follows:

- Sealord - \$450m – 50% Māori Owned
- Sanford - \$460m (a percentage of quota may be leased from Māori)
- Talley's – Estimated \$220m (a percentage of quota may be leased from Māori)
- Aotearoa Fisheries Ltd (Now Moana New Zealand Ltd) - \$154m – 100% Māori Owned (Te Ohu Kaimoana, 2017).

Based on this data, the impacts for Māori businesses operating within the fisheries sector may be considerable. A focus on remaining vocal and influential within the marine governance space may be critical in ensuring a Māori voice when the impacts of climate change become increasingly into the future, ensuring transparency. This will be critical when the time comes to ensure that new commercially valuable species that emerge into New Zealand waters are added to the QMS as other

² In this Settlement, the Crown recognised the full extent of Māori customary rights to fishing and fisheries by:

- Providing funds for Māori to buy a 50 percent stake in Sealord Products Limited (now Sealord Group Limited) which, as one of the largest fishing companies in New Zealand at the time, was a major owner of fisheries quota;
- Undertaking to provide Māori with 20 percent of commercial fishing quota for all new species brought within the QMS;
- Undertaking to ensure the appointment of Māori on statutory fisheries bodies; and
- Agreeing to make regulations to allow self-management of Māori fishing for communal subsistence and cultural purposes (Te Ohu Kaimoana, 2017).

species move out of northern waters (KPMG, 2020). As a result of the fisheries Treaty settlements, Māori are guaranteed 20% of all new species introduced into the QMS.

Table 7: Risk Summary – Food and beverage sector.³

Risk Summary for Māori Business - Food and beverage sector
The addition of fisheries and aquaculture as a subsector lifts the relevance of risks for maritime infrastructure and maritime transport assets being damaged or destroyed, due to significant Māori ownership within this subsector. This is a significant risk for fisheries assets, ports and vessels and may impact directly on supply chain, catch, business continuity and profit.
Large scale ecosystem change increases the risk for Māori with commercially valuable Quota Management System (QMA) species migrating south, out of northern QMAs. This may have a significant impact on Māori fisheries businesses and shareholdings. This is reduced by the fact that 20% of the new species quota will be transferred to Māori, but with close to 50% ownership in current species, this loss has the potential to significantly impact Māori.

Table 8: Insights from interviews – Food and beverage sector.

Key Risks Identified through interviews
<ul style="list-style-type: none"> • The concerns were more limited as the interviewee felt confident that larger players in their industry will have these things planned for and have alternatives available that they would be able to leverage off • Risk 3: Power disrupted- Medium risk, but echoed the fact that they would move to alternatives • Risk 5: Flights disrupted- Pre-covid this was material; post-covid they have adapted to seeing this as low-medium risk • Risk 6: Water is critical for production, but comfortable that things are in place externally so can outsource • Risk 7: Medium risk – as can relocate operations if needed relatively easily • Risk 8 and 9 and 10: Crops are essential for raw product – Ecosystem changes are much higher risk – bio-hazard risks so much bigger. Breakdown of food change and viruses, for example
Sector comments from interviews
<ul style="list-style-type: none"> • Inclusion of Māori practices such as maramataka in agriculture is important • Breakdown of food-chain is integral to operations and connection with te taiao • With environmental change, concerned with impact on insects and bees as pollinators and strained food chain • Focus on operating sustainably, not exploitatively • Maximising outputs, not mass production. It's not about extracting as much as you can out of anything, but 'how can we look beyond, sustain that and achieve win-wins' • 'The more wins I can generate the happier I am'. Producing more product = more need for ingredients and more money can be invested in environmental good. 'More everything... it's the full food chain, more flowers, trees, life' • Recognition that the land has sustained the people for that long. The only way to move ahead is to prepare and be kaitiaki for the next generations

³ Note: Risk summaries are based on literature and data review only, due to limited interview data across sectors.

- European farmer often focuses on generating x amount of profit and then sells, moves on to another space. A different operating rationale.
- Not yet 100% sustainable but the intention is that with time and resources = becoming completely sustainable
- Providing this experience, 'joy, sharing and manaaki is a huge part of what we do'
- Inclusivity is key and manaaki, looking after that approach, less competitive mindset
- Authenticity over growth, and acknowledge that a longer timeframe is ok
- Values baseline, integrity, value alignment

3.2.1.4 A Future Scenario for Māori Businesses in the Food and Beverage Sector

"We operate sustainably, not exploitatively. It's not extracting as much as I can out of anything, but how can we look beyond and sustain and achieve win-wins." – Interviewee

This future scenario sees Māori businesses well-advanced in their water planning in relation to water access and water quality for their businesses within the food and beverage sector. With water rights and interests being resolved, Māori play a critical role in influencing water quality and securing water rights for their businesses into the future. This makes these businesses more resilient and ensures that their businesses have prioritised water security for the future, thus reducing the risk.

Having focused on leadership in regenerative and restorative agriculture, Māori agricultural businesses may have adapted and created sustainable enterprises telling their provenance stories and leading the way in profitability without compromising on protecting te taiao. They may transform their production to include crop species that previously did not flourish in the cooler Tāmaki region but will thrive in the warmer climate of the future. This diversification and changing of practices may mitigate and reduce the potential risks identified and provides opportunity for Māori business to be leaders in both Aotearoa and international export markets, enhancing their provenance story.

All Māori businesses in these subsectors have transitioned to renewable energy sources well in advance and are integral in testing and creating innovative industry solutions which are then pushed out internationally through non-competitive industry relationships.

The interconnectedness of working with their whenua, and farming, fishing, growing and producing kai having such a significant impact on sustainability is the key driver for change in the sector for Māori business.

Pathways to success have been enabled and cemented through Strategic Actions 2 and 4 of Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan.⁴ This is implemented effectively with synergies between identified actions for Auckland Council and the priorities and operational practices, risks identified and the opportunities for Māori business in the food and beverage sector.

Table 9: Māori Business Opportunities – Food and beverage sector.

Opportunities identified in ECCRA	Opportunity for Māori Business
<ul style="list-style-type: none"> Improved catchment hydrology as a result of afforestation Strong consumer demand for safe and sustainable protein Increasing demand for locally produced goods and services as imports increase in relative price due to higher transportation costs Onsite electricity generation / microgrids may increase resilience to disruption to external energy network shocks Ability to expand into new markets through the provision of low-carbon goods and services Access to new financial products (e.g. green bonds, sustainability linked loans, sustainability linked bonds) to support business growth 	<ul style="list-style-type: none"> Māori dominate fisheries, providing considerable opportunity for these markets Opportunity for remote Māori businesses to secure more efficient and reliable power supply
	<p>Opportunities identified through interviews</p> <ul style="list-style-type: none"> Developing impossible foods – created foods and foods to replace higher emission products AU is working on a project called ‘From the Groundup’ – It is about adaptation and pursuing higher value niche products as well as a sustainable seafood corridor. This is something that would be of interest to Māori and Māori Businesses

⁴ **Strategic action 1** - Support, endorse and resource the establishment of a rōpū that enables us to put the indigenous framework into action. What this means in practice – form an intergenerational collective, that is rangatahi-led, to act as a channel between council and stakeholders. The purpose of the collective is to manage activities to support climate action and resilience.

1. Phase One: Establish trust and rapport through a series of wānanga that facilitates collective consciousness and a common agenda.

2. Phase Two: Develop an indigenous measurement tool to support management, prioritisation, and measurement of the state of progress against the indigenous framework.

3. Phase Three: Using a collective impact model, establish a term of reference for working between the intergenerational collective, council and stakeholders.

4. Phase Four: Establish rangatahi rōpū (group) to create a collective impact movement for change (that supports bringing climate justice and resilience actions to life). Members represent key Atua māori that are most impacted by climate change.

Strategic action 4 - Support, endorse and resource food sovereignty in accordance with our indigenous measurement tool. What this means in practice – reconnecting people of all ages to where our sustenance comes from - how it grows and how we can be more resilient when we understand this. Sub Actions:

1. ‘Ka noho’ – wairua and ngākau: Assist rangatahi to reconnect with mātauranga Māori to nurture skills and awareness around what it means to be self-sufficient.

2. ‘Teina’ – hinengaro: Enable educational programmes focused on reviving ancient Māori food practices as a way to help rangatahi and their whānau understand self-sovereignty beginning with food sovereignty.

3. ‘Te tangata’ – tinana: Promote, progress and fund current and emerging initiatives, programmes and groups who are actively committed to the restoration, sustainability and protection of food sovereignty systems within their communities. (Auckland Council, 2020)

3.2.2 Construction

For the purpose of the ECCRA the Construction Sector comprised of the following subsectors: infrastructure, residential and non-residential subsectors.

“We are the company of a million chances. We provide opportunity regardless of your background, formal training or convictions. We are whanau, you can fall in and out of love but we allow them to keep coming back.” – Interviewee

Construction is the dominant industry for Māori-owned businesses across nearly all regions in New Zealand, with more Māori-owned businesses in Construction than any other industry. The construction sector is a vital component of Auckland’s economy and in 2019 it employed over 86,000 people, with a large number of these being Māori (19,000 according to MBIE, 2015). Nationally more than 2,400 Māori-owned businesses are based in the Construction sector (TPK, Te Matapaeroa, 2019). Most reports have a considerable lack in detail around what areas of construction these Māori owned businesses work in, their size and turnover. A large number of businesses have simply self-identified as being self-employed (MBIE, 2015).

Given the tribal area for most of the iwi and hapū in Tāmaki Makaurau is comprised of urban areas, their settlement assets received or their chosen investments resulting from cash settlements, lean towards commercial property assets. Many of these are then leased back by the Crown but many include tracts of land dedicated to residential property development, retirement homes, school grounds or other commercial or industrial properties. Those iwi and hapū in the area with the biggest asset bases are almost entirely property based and most include development.

Although there are a large number of iwi and hapū that have ancestral ties to the Tāmaki Makaurau region (as detailed below), Ngāti Whātua Ōrākei is one of the largest earning iwi in New Zealand with their entire asset base invested in property, which funds the aspirations of their people (TBD, 2018). All of Ngāti Whātua Ōrākei’s investment properties are in the Tāmaki Makaurau region. Its properties include:

- Quay Park, which has 29 ground leases which include the Spark Arena, a Countdown supermarket, apartment blocks, other apartments and commercial building
- Eastcliffe on Ōrākei Retirement Resort at 217 Kupe Street, Ōrākei; and
- North Shore Development Lands. Ngāti Whātua Ōrākei purchased 28ha of North Shore land from the Crown as part of the WAI388 Claim.

With a total property asset base of over \$1.2b and a net worth of over \$900m, all located in the Tāmaki Makaurau region, Ngāti Whātua Ōrākei’s exposure to impacts within the construction industry in Tāmaki Makaurau is significant. Any assessed impacts on the construction industry may have a considerable impact given their future development aspirations. Prioritising planning for impacts within the construction industry will be key, to ensure the impacts of any disruption in the industry are well planned for. Waikato-Tainui also have two significant hotels based adjacent to Auckland Airport; one is still under construction.

Ngāi Tai ki Tāmaki have also recently settled their Treaty claims and have received \$12.7 million in

commercial assets (New Zealand Government, 2018), with the settlement for Ngāti Tamaoho (New Zealand Government, 2017), including commercial assets. Te Ākitai Waiohūa have also recently settled. As part of their settlement financial redress they received the ability to work with the Ministry of Housing and Development on property development opportunities. The potential risks identified for the construction industry may directly affect iwi and hapū in the region and their ability to access and take advantage of their assets to help fulfil their aspirations into the future.

Table 10: Risk Summary – Construction sector.⁵

Risk Summary
<p>On the basis of the more limited diversification of business interests within Māori entities in the Tāmaki Makaurau region and the resulting consequences of these risks all being highly relevant, the risk for Māori may be increased. With both large numbers of Māori employees in the industry as well as Māori-owned businesses, alongside the significant iwi and hapū asset base in the sector, the consequences for Māori business as a whole may be significant.</p>
<p>The values baseline of operations, often with a key focus on environmental impacts, for most Māori businesses means that they may be acknowledging, prioritising and planning for the identified risks to the industry, albeit they may not have the financial resources to support their planning. Given the value of the industry to the Māori economy and with fewer ways to diversify practices to minimise the impact of these risks, it may be important for Māori businesses in the industry to plan for these challenges.</p>
<p>The non-sector specific barriers already identified above apply to the construction sector.</p>

Table 11: Insights from interviews – Construction sector

Key Risks Identified through interviews
<ul style="list-style-type: none"> • Risk 1- Maritime - There are very few or no alternatives. This equals delays. Proposed remedy of budgeting more downtime and tendering for easier, less complex tenders. • Risk 2-4- and 6-11 are all currently planned for. There are strategies and plans in place for business continuity. There is an issue around access to reliable data to enable decision making. i.e. Have you factored enough down days based on weather (heat or storms) within contracts. • Risk 5 - Flights are a huge issue. As a Trans-Tasman company this impacts our governance or shared upper level management resource but there are digital options.
Sector comments from interviews
<ul style="list-style-type: none"> • Lower productivity - Low income jobs lead to vulnerability, and if there is disruption and an increase in this, then it exposes those employed within the industry. This is relevant to a high number of Māori. • Looking to options for moving to higher productivity to combat this • Land and construction are a big part of the picture for iwi • Keen to be part of property negotiations and discussions but these are huge amount of money • Insisting on inclusion through procurement is essential • Must be part of the stories around development. But there is sometimes wasted resource going in circles with korero. • Aiming for true partnership and true trust

⁵ Note: Risk summaries are based on literature and data review only, due to limited interview data across sectors.

- An impact may be moving to subcontracting, to minimize (or outsource) the risk and minimise costs
- Concerns around larger or prime contract holders shifting risks down to subcontractors. This will realistically mean a large number of Māori providers may carry this. These are also the ones that employ a huge number of Māori.
- Māori are often hit earlier rather than later by headwinds
- Operating rationale includes providing better opportunities for Kiwis so our good people don't keep leaving to Australia. Focus on:
 - paying minimum of \$30 hour, time and a half and penalty rates and pay people what they are worth
 - pricing jobs accordingly and including these costs.
 - work on professionalism and expertise not just price
 - giving multiple chances even when people make mistakes over and over
- Provide staff with financial assistance, poor credit and education around finance, bank set up etc. Access to services. If they can't access finance we give it to them i.e: finance car for them until they paid off from their pay. All done with contracts. Only ever had one not pay.
- Also have career pathways from labourer to ownership. Labourer to business partner is the dream. Realistically it is about providing an opportunity to get to the top. Goal is move people on - succession planning.
- Amotai isn't necessarily capturing everything that is 'Māori' and there are many that can stand on their own two feet.
- Values baseline can result in being more vulnerable. Some Māori businesses go under as they don't know how to access support.
- Biggest potential clients are pākeha who own everything. They own all the supporting services and buy them all out. "We have to rely on our relationships. The work we are getting are old friends and University friends. Sometimes it's great delivery that gets more wins."
- Decision making is the actual problem, everything run by pākeha. "Council decision makers, white, procurement white. All white faces, Māori don't feature."
- Different focus on environmental, and social stuff. Keen to work together to get work but the pākeha view encountered is 'I'm going to get the job and you are going to work for me.'

3.2.2.2 A Future Scenario for Māori Business in the Construction Sector

"We employ more Māori and Pacifica people and know that most reasons why social statistics are poorer is because of financial stressors. If we can lift them up financially then that will help them in all areas." – Interviewee

This future scenario sees the values baseline operations for most Māori businesses within the industry means that they will be acknowledging, prioritising and planning for the identified risks to the industry. With fewer ways to mitigate or diversify practices to minimise risks, innovation kicks in. Innovative construction technologies and solutions are developed that remove reliance on supply chains, with locally sourced products emerging across the board. With Māori as keen early adopters of technological advancements, and an increased focus on protecting their people and valuable sources of profit to achieve their aspirations for their people, the construction industry remains a vibrant of the Māori economy in Tāmaki Makaurau.

Taking on board the challenges they find themselves facing as employment disappears with the growing risks that climate change brings within the industry, Māori construction contractors fill the growing voids and work together as industry teams. They operate with autonomy but use their

collective power and relationships to minimise risks and access preferential rates to level the playing field against the bigger players in the industry. They have prepared for and planned for the risks identified and have led the industry with innovative solutions which they then export worldwide. The collective of Māori construction businesses in Tāmaki are in significant demand as the lowest footprint operators in the industry and strong local supply chains powered through whakapapa connections and whanaungatanga. As the largest employer of Māori in the industry offering wrap around support for their people, empowering their whanau and aligning with their principles and values-based operations.

Table 12: Opportunities for Māori Business – Construction sector.

Opportunities identified in ECCRA	Opportunity for Māori Business
<ul style="list-style-type: none"> • Additional opportunities from demand for low-carbon buildings and infrastructure • Increased energy efficiency of houses and other buildings leading to reduced operational energy costs • Strengthened local supply chains • Increasing demand for locally produced goods and services as imports increase in relative price due to higher transportation costs • Onsite electricity generation and microgrids may increase resilience to disruption to external energy network shocks • Ability to expand into new markets through the provision of low-carbon goods and services • Access to new financial products (e.g. green bonds, sustainability linked loans, sustainability linked bonds) to support business growth 	<ul style="list-style-type: none"> • Given the long timeframes in these scenarios, the likelihood of innovative construction technologies cannot be discounted, especially with Māori as keen early adopters of technological advancements, with an increased focus on protecting their people and valuable sources of profit to achieve their aspirations for their people. • Opportunity for remote Māori businesses to secure more efficient and reliable power supply • Opportunity for unique Māori provenance story throughout export markets
	<p>Opportunities identified through interviews</p> <ul style="list-style-type: none"> • Opportunities around housing and construction, property development and thermal requirements, will be decreasing, and may even out against risks • Green Waste, recycling, job creation and linking Māori businesses together in this space – circular economy • Re-deployment of staff - Partnership or procure the work to someone else

3.2.3 Screen

For the purpose of the ECCRA the Screen Sector comprised of the following subsectors: film sector infrastructure and filming locations subsectors.

“Climate Change always has impacts for us. It’s not 2040, its now. We directly see the impacts and they directly impact us as a business.” – Interviewee

Although it is clear that art and creative industries include a large number of Māori artists, there is

very little data accessible on Māori business in the screen sector, and none that indicated this by region. There is however, significant revenue brought in by overseas production and film projects choosing to film both within the environmental and cultural contexts that New Zealand has to offer. This trend makes being positioned within this industry more and more profitable and attractive for Māori businesses. Motion Picture and Sound Recording Activities were identified as one of the top six sectors for self-employed Māori in the Tāmaki region 4.3% (ATEED, 2020).

A number of Māori owned and operated businesses were identified through connections and searches. Mahi Tahi Media operates out of Auckland and states that they are an innovative production company creating television, and digital and livestream content. Kura Productions operates within the Auckland region also and identified themselves as a Māori television and film production company.

The company is a joint venture between Quinton Hita and South Pacific Pictures. A further 5 members were detailed within the Māori Screen Professionals Directory provided by Ngā Aho Whakaari, Māori in Screen, an organisation based in Auckland. The members were writers, directors, producers, actors and publicists in the industry. With so little data available given the obvious size of the industry, the assessment has been based more heavily on the Māori context.

Table 13: Insights from interviews – Screen sector.

Key Risks Identified through interviews
<ul style="list-style-type: none"> • Risk 5 - Most worried about flight disruption • Risks 9 and 10 – seasonality and eco-systems will have a huge impact on ability to continue main popular shows being filmed • Risk 2 - ICT – Also concerned • Risk 1 - Maritime – Also concerned
Sector comments from interviews
<ul style="list-style-type: none"> • Always impacted by Climate Change. It's not 2040, it is now. • Directly see the impacts and they directly impact on business operations • Weather patterns are considerably less predictable. Have impacted already on our weather contingency days increasing drastically. • Ecosystem impacts are also very real. It directly impacts staff, their ability to catch/fish, what they catch as well as the weather itself. This directly impacts budget. • All NZ shows and content are coastal or in the environment • Operators in the screen industry are capital-light so they are more fluid and moveable • The creative and indigenous voice is growing and it's an emerging economy • More resilient and more able to move with locations • Building the production and digital space is essential. Boutique operators having a resurgence

“The creative and indigenous voice is growing and it’s an emerging economy.” – Interviewee

3.2.3.2 A Future Scenario for Māori Business in the Screen Sector

This future scenario sees Māori businesses within the future screen sector as being low impact

environmentally, digitally focused and creating high value outputs that use innovative tools to create value and tell their stories. The screen sector is heavily involved in supporting the knowledge-based economy and particularly through the huge increase in online learning and demand for creative, engaging content.

This places Māori screen industry professionals as leaders and kaitiaki of mātauranga and knowledge alongside mana whenua. Integral in telling and sharing stories on their own terms. Increasing demand for indigenous content that is locally produced is highly valued and attracting more and more rangatahi and pākeke into the industry both in front of and behind the screen into high value industries.

Technology and how we view content has driven Māori businesses to lead through innovative ideas and practices, resulting in productions that are fluid, moveable and low impact on te taiao.

Table 14: Opportunities for Māori Business – Screen sector.

Opportunities identified in ECCRA	Opportunity for Māori Business
<ul style="list-style-type: none"> • A higher percentage of the workforce sourced from Tāmaki Makaurau to minimise aviation emissions and costs • Increase investment in technologies such as landscape scanning, augmented reality, virtual reality, animation etc to reduce the need to travel to sites during production • Increasing demand for locally produced goods and services as imports increase in relative price due to higher transportation costs • Onsite electricity generation and microgrids may increase resilience to disruption to external energy network shocks • Ability to expand into new markets through the provision of low-carbon goods and services • Access to new financial products (e.g. green bonds, sustainability linked loans, sustainability linked bonds) to support business growth 	<ul style="list-style-type: none"> • Increased opportunities for Māori artists and creatives both on and behind the screen • Increased opportunity for advancing the knowledge economy as an opportunity, kaitiakitanga, owning these stories and their presence in the industry • Opportunity for remote Māori businesses to secure more efficient and reliable power supply • Opportunity for unique Māori provenance story throughout export markets
	<p>Opportunities identified through interviews</p> <ul style="list-style-type: none"> • Be leaders in the industry • Use product placement or sponsorship from EV suppliers • Try to strengthen more digital or weightless exports and support development of these industries

3.2.4 Visitor Economy

For the purpose of the ECCRA the Visitor Economy Sector comprised of the following subsectors: tourism, business and major events and international education subsectors.

“The reality is they need to start calling it manaaki not, tourism/hospitality.”
– Interviewee

Within data reviewed, the Visitor Economy is not separately identified in standard classifications of industries. Rather, the 'tourism sector' is defined as a combination of some of the activities in various sectors, for example, retail trade, accommodation, transport, and art and recreation (BERL, Te Ohanga Māori, 2018). However, a number of recent studies were compiled with data collected just prior to the COVID-19 pandemic. Post COVID-19 the realities and struggles for the tourism industry in New Zealand have been significant. Domestic travel has increased and enabled some businesses to survive, but not to the extent they did pre-COVID. Given that international travel may be impacted for years to come, the overall fragility of the industry may make transition and preparedness all the more challenging for this sector, or it may provide an opportunity to regroup and consider its future.

With 537 Māori-owned tourism businesses identified nationally, Māori businesses make up 4% of all identified tourism businesses. 300 of these were Māori-owned businesses in Accommodation and Food, 141 Māori-owned businesses in Arts and Recreation, and 96 Māori-owned businesses in other tourism industries (including Transport Services, Motor and Transport Equipment Rental and Hiring, and Travel Agency Services). Tāmaki Makaurau was not identified as a region with typically higher levels of Māori ownership of tourism businesses. Across the board, Māori tourism businesses employed more than 11,000 people in 2019 and more than 3% of all employees in the industry (TPK, Te Matapaeroa, 2019).

There are two industries where Māori-owned businesses are making higher margins than non-Māori owned counterparts. These are Accommodation and Food Services; and Rental, Hiring and Real Estate Services. A proportion of this would be included within this Visitor Economy sector and the other in the Food and Beverage sector. These statistics are encouraging, in comparison to the overall data that indicates margins for Māori businesses generally are considerably less than for their non-Māori counterparts (TPK, Te Matapaeroa, 2019).

Māori enterprise in this sector was continuing to see significant growth pre-COVID. Authentic Māori tourism experiences are highly sought after and are growing in number. In the Tāmaki Makaurau region, specific data was again hard to access. However, here are some assumptions that can be made in relation to the risks identified in the ECCRA. In relation to cultural heritage sites, the likelihood of Māori being employed in reasonable numbers and being active businesses in the industry is high. This will only continue to increase as awareness and the value of indigenous stories is becoming more popular in the tourism experience and as part of the New Zealand story. This may increase the risk ratings for Māori business on this basis.

Waikato-Tainui, as one of the largest iwi in the country, have connections within Tāmaki Makaurau and operate Novotel Auckland Airport Tainui. This hotel opened in 2011, and comprises of 263 rooms, conference and business facilities and a restaurant and bar. The hotel operates directly alongside Auckland Airport. The hotel was developed as a joint venture with Auckland International Airport Ltd (20%) and Accor (10%). Waikato-Tainui are also part of a joint development with Auckland Airport to develop the Te Arikiniui hotel, which will offer 5-Star accommodation alongside their Novotel Tainui. These are considerable investments and may be significantly impacted by the risks identified within the ECCRA (Waikato-Tainui, 2020).

Impacts on Māori cultural and heritage sites and waahi taonga will also have an impact on the tourism industry. However, the connections that Māori have and role that Māori business plays in both enhancing and protecting these sites within tourism businesses make these risks and consequences considerably greater for Māori businesses and for Māori overall.

Table 15: Risk Summary – Visitor Economy sector

Risk Summary
The tourism sector is heavily reliant on Māori taonga, culture and people in Tāmaki Makaurau and the ability for Māori businesses to be front and centre in telling their own stories and histories within the tourism sector may only increase over time. With technological advancements and increases in commercial asset bases, these business opportunities may increase thus increasing the risk profile.
The consequences for Māori further increase due to the cultural connection to these sites over and above the financial impacts of changes to business operations that they are dependent on.
The importance of the industry to Māori business and culture within the region is noted, due to the number of Māori businesses and iwi and hapū commercial entities that exist within the sector and subsectors.

Table 16: Insights from interviews – Visitor Economy sector.

Key Risks Identified through interviews
<ul style="list-style-type: none"> • Risk 1- Thinking of alternative routes is critical. Flexible itineraries- so there can be real time responses. • Risk 2 - ICT- important as very dependent but social media – less so for boutique operators; ICT is an enormous risk for the University. • Risk 4 - Road networks- Interested in rail again and air connectivity- other ways of not being overland- off the beaten track. • Risk 5 - International flights- critical for customers. • Risk 6 - Critical for customers. • Risk 7 - Things to visit are critical for tours. • Risk 9, 10- Coastal stressors- visitor days and festivals etc- i.e: where to go if normal is out? – Need good terms and conditions regarding safety and cancellations. • Risk 11 - People exposed- safety is paramount, staff, suppliers, visitors. • Most worried about Risk 4 (road networks) and 10 (fisheries). • Other risks of medium importance. Least worried about Risk 8 (assets, crops) and environmental as there are strategies in place to protect. • Risk 11 - is a big risk because air travel and conferences are critical for international students and academics.
Sector comments from interviews
<ul style="list-style-type: none"> • Expressing manaakitanga when all opportunities to do that is being compromised – how? • Really impacted by COVID. 70% of businesses currently do not operate anymore. • Highlighted those sites of significance that are co-managed with DOC. Those iwi relationships need to be managed as they need to navigate disruption. • Auckland is hugely reliant on the visitor economy, in every way. All businesses are connected with this. • Without strong balance sheets or no capital to lean on, this is hard. All of this is cyclical but for Māori business there are more barriers and the risks are higher. • Lack of support across the industry, how we treat each other in any industry is most important • There is going to be a problem with price cutting. That is not how to survive. Prioritise good living and value what we have. ‘We are holding prices, not dropping like everyone else.’

- Would rather have valuable staff who want to work with us. Being fair. Our standard of living is high in New Zealand. The playing field is not level internationally.
- Navigating outside and around the motu is a challenge, you need to have the right to operate. Whose stories are they to share? Others are happy for to share their stories, some have us do it.
- ‘Our best is local people in local areas, and that’s what our people want to hear’
- Clients aren’t here to just visit, they bring their own experiences. You learn as much as you can. Rāhui is one of the best examples. Operated West Auckland touring. Couldn’t control it that, but it was something that was being played out in the media and they operated right through that zone by managing it.
- ‘The reality is they need to start calling it manaaki not, tourism/hospitality’
- Manaaki is innate
- ‘We are pretty mainstream and have mostly non-Māori customers. It’s just who we are, part of our experience’
- ‘If you look at indigeneity, you are even more isolated as a minority. Your belief systems and what you see as important is different.’
- Yes, these things will impact absolutely because the Māori entity within the University probably haven’t been consulted around the planning for these risks and business continuity.
- That lens won’t have been considered, therefore there will be impacts
- The tools used in emergency and risk stages - Concerns about IP issues and indigenous lenses for these portals once in the international domain.
- Would prefer to have online portal for international services and then have it governed by our own not international law, as once online control is lost.
- The University numbers managed to stay steady even with the borders closed as they needed to reflect and look to local resources. But they didn’t consider that for every international student meant 5 x New Zealand students – that’s a carbon footprint issue. It worked out because of the online classes through COVID, but it was not designed like that it just happened by default.
- Limited consideration of these sustainability impacts, income was the priority
- Think there is a clear flaw in hospitality. Rent way too high, labour way too expensive. In store 6 hours a day but primarily sales are in 1 hour of the working day. 15% profit is made stretched across the remaining hours – it is not sustainable or smart.

“How do we express our manaakitanga when your opportunity to do that is being compromised?”

3.2.4.2 A Future Scenario for Māori Business in the Visitor Economy

This future scenario sees the ability for Māori businesses to be front and centre in telling their own stories and histories within the tourism sector and this will only increase over time. Māori are and have always been drawn to this industry and with technological advancements and increases in commercial asset bases, these business opportunities increase exponentially. Authenticity in tourism is paramount, with travel for the coming decades become more experiential and indigenous focused, Māori businesses are actively sought out by customers both nationally and internationally.

Innovation sees digital hospitality experiences enjoyed by many with Māori tourism leading operators in this space, creating employment for their people and high value jobs in tourism innovation. As with the screen sector, there becomes a connection between Māori industry as kaitiaki of mātauranga and knowledge alongside mana whenua, and integral in the telling and sharing of stories on their own

terms. Sites of significance are only experienced by visitors alongside Māori experts and this knowledge is highly valued and passed down through whakapapa within the industry, and creates employment and a resurgence in mana whenua knowledge holders being engaged within the sector. Within the sector these skills are also leveraged and accessed to support the international education sector, developing programmes that are internationally recognised across the indigenous knowledge space and sees the strengthening of existing Māori businesses across the sector as a whole.

Table 17: Opportunities for Māori Business – Visitor Economy sector.

Opportunities identified in ECCRA	Opportunity for Māori Business
<ul style="list-style-type: none"> • Increased opportunities for recreation, tourism and conservation due to afforestation • Higher education institutions may benefit from funding made available for low- carbon research • Higher education institutions may be able to develop new service offerings to equip students for professions likely to prosper in a low-carbon economy • Increasing demand for locally produced goods and services as imports increase in relative price due to higher transportation costs • Onsite electricity generation / microgrids may increase resilience to disruption to external energy network shocks • Ability to expand into new markets through the provision of low-carbon goods and services • Access to new financial products (e.g. green bonds, sustainability linked loans, sustainability linked bonds) to support business growth 	<ul style="list-style-type: none"> • Increased opportunity for authentic cultural tourism owned and operated by Māori • Enhance connections between the Visitor Economy and Māori research institutions, for Māori businesses to benefit from the increased funding for mātauranga Māori or Māori perspectives in climate adaptation/mitigation-based research, as well as these new career pathways being developed. This evolving knowledge economy provides opportunity for enhancing and growing the visitor economy. • Opportunity for institutions and Māori organisations to focus on increasing Māori uptake into these new professions • Knowledge economy is a huge opportunity, kaitiakitanga, owning these stories and their presence in the industry • Opportunity for remote Māori businesses to secure more efficient and reliable power supply • Opportunity for unique Māori provenance story throughout export markets
	<p>Opportunities identified through interviews</p> <ul style="list-style-type: none"> • Resolving the costs of having a storefront. Going digital from kitchen to consumer • Reducing footprint by containing site and being solely delivery based. More control over everything to mitigate risks • Create online ordering direct through a channel (ie: Microsoft Teams) and streamline ordering, getting people ordering just because they get an alert to say someone else has. Can become a huge new revenue stream • Promote eating healthy and team relationship building. Alerts when teams are eating together

4. Transitional climate change risks

Transitional climate change risks and opportunities are identified as those that may result from the process of adjustment towards a low-carbon economy.

“In contrast to the physical climate change risks posed by climate change, climate-related transitional climate change risks and opportunities are highest in the next few decades (as action is taken to reduce emissions), are broader in scope, and are dependent on the speed and scale of transition.” (AECOM, 2021, page 53).

Transitional climate change risks and opportunities resulting from transition evolve as a result of a number of things and include risks related to costs imposed or resulting from policy and litigation, technological improvements, market shifts in supply and demand, as well as reputational risks for organisations.

4.1 Assessment

The assessment for identifying transitional climate change risks within the ECCRA was again based on the transition scenario within the ECCRA technical report (AECOM, 2021). Both transitional climate change risks and opportunities were not rated as the physical climate change risks were, as they are too ambiguous to have a specific risk rating. These have been considered in the same manner for this part of the review in a Māori context.

The ECCRA (AECOM, 2021) does indicate that a general assessment of the level of risk depends upon ‘the ability of the economic entities within the sector/subsector to absorb costs or to pass costs on to consumers, and the sensitivity of consumers to changes in products and prices.’ (AECOM, 2021, page 54). This was echoed by the interviewees’ insights and was a key driver in the risks and barriers that they identified for transition.

Many of the impacts and effects of the identified transitional climate change risks are also relevant to the physical climate change risks that have been detailed throughout this report, specifically the challenges identified in Māori business contexts. These challenges simply increase any identified risks and often create an uneven playing field when considering risks in transition. Across all sectors the challenges identified for Māori businesses above will increase transitional climate change risks including access to funding (34%), people – capability & capacity (31%) and access to capital (18%) (BDO, 2020).

4.1.1 Insights on Transitional Climate Change Risks from Interviewees

A summary of insights gained from interviewees when discussing the identified transitional climate change risks from the ECCRA is included below. The majority of these insights were in relation to transitional climate change risks, as well as transition actions and were relevant across the sectors, with additional sector specific insights identified within the right-hand column.

Table 18: Insights from interviews – Transitional climate change risks across sectors.

Key transition insights from interviewees	Sector specific insights on transition
More limited financial backing or foundation to support transition	<p>Visitor Economy</p> <ul style="list-style-type: none"> • Very hard in our industry. There is stuff we would like to do. Vac-packed but how do we do that. Bio vac-packing. • We switched to biochem not plastic bowls. Wooden chopsticks • Hospitality is one of the worst in sustainability. Have managed to reduce better food waste, stocking systems to reduce waste.
Lack of available cost-effective options for transition	<p>Food and Beverage</p> <ul style="list-style-type: none"> • We are seeing mitigation in the food and beverage space • Comfort is taken in the need for food and as a result, in our business, the reliance on the supply of food. • Our population is small and we do have the ability to move and adapt. For example, removal of round up and pesticides, would be a big change in reasonable timeframe.
Access to capital to support transition	<p>Construction</p> <ul style="list-style-type: none"> • Move to being more digital. Keep a handle on hours worked, what they are achieving in those hours and recording what has impacted us and creating a calculator. • Use data to adapt our practices and use the digital information to do that. Buying into programmes that personalise our business and hone our skills. • Improving workmanship and practices. Inhouse practices and improving practices to refine and save costs. • A lot of companies are trying to de-risk by having to absorb with another company to take on risks or to step up. • Currently not fit for purpose electric vehicles for what we need • We are paperless and minimise waste through measure to cut processes.
	<p>Screen</p> <ul style="list-style-type: none"> • Have moved away from higher emission and higher fuel use vehicles, boats and outboard motors. 4 stroke outboards, not 2 stroke so less fuel consumptions, 1/3 less fuel and no oil. Vehicle v8s changed to swifts, hiluxes etc. • Rechargeable batteries on site – 8 year ago transition, mics etc reduced waste. • No generators. Two off grid properties, all solar, generator backup It is 100% cost prohibitive to move to electric vehicles.

The table below details the transitional climate change risks identified within the ECCRA. These have been considered in a Māori context as contextualised earlier in the report as with the physical climate change risks. Considerations resulting from this assessment are reflected in the additional column in the table below.

Table 19: Transitional climate change risks applying to all sectors including Māori business considerations.

Transition risk	Commentary from ECCRA	Considerations for Māori
Increased costs of transporting input materials across the sectors due to increasing fuel costs	Risk depends upon the distance inputs to production must travel, the distance to consumer markets, and the mode of transportation. This risk applies to land-based transportation, aviation and shipping	The ability of Māori businesses to absorb the costs varies considerably. With Māori SMEs experiencing greater financial exclusion (TPK, 2019), their access to additional capital may be challenging. Further pressure on their balance sheets may not assist with this.
Higher electricity costs causing reductions in demand, or reductions in profit margins	Risk depends upon the energy intensity of the production of a good or service, the ability of the business to absorb costs or to pass costs on to consumers, and the sensitivity of consumers to changes in price	
Increased costs of inputs to production due to price on carbon	Risk depends upon the volume of material inputs, the emissions intensity of the material, and the technological viability of decarbonising the relevant production and supply chains.	
Additional capital outlays required for fuel switching and energy efficiency retrofits in response to policy, regulation, consumer demand or market signals, stressing balance sheets and cashflows.	Risk depends upon the magnitude of the capital outlays required, and the ability of the business to access necessary capital.	
Stranded assets: Investments see their economic life curtailed due to technological, regulatory and/or market changes, stressing balance sheets	Risk depends on current or likely future existence of substitutes for production processes or goods and services, the emissions intensity of assets, asset adaptability, asset useful life, and the capital intensity of sector outputs.	

<p>New costs of compliance associated with carbon- related regulation such as the TCFD causing reductions in profit margins via increased operating costs</p>	<p>Risk depends on the size of the business (i.e. employees, market capitalisation) and ownership structure(i.e. public, private), and emissions intensity of sector.</p>	<p>Increasing operating costs for SME's may continue to be a challenge and the additional challenges facing Māori businesses such as access to finance, and access to necessary human resources (BDO, 2019) may compound these risks.</p>
<p>Reputational risk if skills required to the transition, or prosper from the transition, are not present in the labour market</p>	<p>Risk depends on the need for new skills(i.e. is the transition driven through changes to labour, or capital, the adaptability of the labour-force, the ability to attract appropriately skilled workers from outside the Tāmaki Makaurau region.</p>	<p>In a number of the sectors reviewed there were issues around availability of workforce and access to human resources to fill these gaps. This may be compounded where Māori haven't been supported through the necessary educational pathways to meet the needs of the market.</p>
<p>Increased risks from wildfires due to afforestation efforts</p>	<p>Risk depends upon locations of assets and workforce exposure to smoke. Risk may also flow through transport networks and other linear infrastructures.</p>	<p>Māori entities on average own larger amounts of marginal land which is often in scrub or forestry, increasing exposure to these risks(Harmsworth et al, 2010)</p>
<p>Reduction in the competitiveness of exports if other markets do not take action to reduce emissions.</p>	<p>Risk depends on importance of exports to the sector</p>	<p>For the food and beverage sector, exports were noted as increasingly important for Māori business (King et al, 2010) and this is part of their provenance story. This may add further pressure where their focus on premium products is more significant.</p>
<p>Increased Directors and Officers (D&O) liability insurance costs</p>	<p>Risk depends on size of the business and likely liability under transition scenarios</p>	<p>Additional risks in some cases when considering added complexities of governance in iwi and hapū organisations and operating structures (Funk, 2008)</p>

Appendix A: Māori Context and Te Ao Māori

1. Contextualising Māori Contexts

The key issues relate to the impacts and responsiveness of Māori businesses to the proposed risks identified. To have a clear understanding of the context from which Māori businesses operate, we need to consider a number of contextual issues below.

1.1 Te Ao Māori and Mātauranga Māori

Ko Rangi

Ranginui – Sky Father

Ko Papa

Papatūānuku – Earth Mother

Ka puta Ko Rongo

Gave birth to Rongomatāne – God of Peace and Cultivated Foods

Ko Tanemāhuta

Tanemāhuta – God of Forests and its Wildlife

Ko Tangaroa

Tangaroa – God over Sea and Fishlife

Ko Tūmatauenga

Tūmatauenga – God of conflict and human behaviour

Ko Tāwhirimatea

Tawhirimatea – God of weather

Ko Haumiatiketike

Haumiatiketike – God over the uncultivated Foods

Tokona ra ko te rangi ki runga ko te papa kiraro

Through the separation of Ranginui to the sky and of Papatūānuku to the earth

Ka puta te ira tangata, kite whai ao ki te ao marama

Humankind was birthed, from darkness (not knowing) to light (to being enlightened)

Tihei Mauriora¹

Māori perspectives of the world are based on the proposition that the environment is an interacting network of related elements, each having a relationship to the other and to earlier origins (Durie, 1998). Illustrated in the karakia (incantation) above, the personification of the earth and the sky as the parents Rangi and Papa, underlines the point by comparing the features of the environment to a family, and as a model for examining the connections and interdependencies which occur between

forests and oceans for an example (Durie, 1998).

The karakia aims to explain that people are part of nature rather than superior to it, and that people exist in a state of balance with other elements without dominion over the natural environment. New Zealand's landscape therefore represents ancestors from whom people are descended.

Mātauranga Māori is an integral element of understanding and engaging with and in the Māori world (Te Ao Māori). It spans Māori knowledge, culture, values and worldview (Hikuroa, 2018), and is embedded in the relationship between people and natural resources, and the relationship between people and their bodies of knowledge as mātauranga Māori is explained through whanaungatanga (kinship) (Tuatahi, 2011).

Pūrākau (story telling around histories and mythology) and maramataka (Māori lunar calendar) are forms of mātauranga Māori, and comprise knowledge generated using methods and techniques consistent with scientific methods, but explained according to a Māori worldview, often binding people, places and relationships (Smith et al, 2016). Mātauranga Māori gives expression to Māori ways of doing, aspects of Māori knowledge and Māori worldview and is often aligned with aspirations (Royal, 2012).

1.2 Kaitiakitanga and the role of Kaitiaki

Durie (1998) describes kaitiakitanga as the act of guardianship that requires clear lines of accountability to whānau, hapū and iwi and is more frequently associated with obligation rather than authority. The Waitangi Tribunal report (2012) shares the view regarding this description, but extends that the description lacks the spiritual dimension that animates the concept and is a product of whanaungatanga, or the intergenerational obligation that arises by virtue of the kin relationship. The Tribunal reports that it is not possible to have kaitiakitanga without whanaungatanga, and vice versa that whanaungatanga creates kaitiakitanga obligations (Waitangi Tribunal, 2012).

Overall, kaitiakitanga in an environmental context is about upholding the care of the ancestors whom are manifested in the landscapes that Māori live within. In environmental terms, the kaitiaki approach is holistic and provides for restoration of damaged ecological systems, restoration of ecological harmony, increased usefulness of resources, and reduced risk to present and future generations (Matunga, 1993). In the role of kaitiaki, whānau, hapū and iwi as tangata whenua, Reverend Māori Marsden (Royal, 2003) suggests that there are three principles that guide kaitiaki:

- Humankind's contribution is to enhance and maintain the life support systems of Papatūānuku
- People should treat Papatūānuku with love and respect in recognition of her life supporting function, her role in the creation of the natural world, and her place in our own whakapapa, and
- No-one owns Papatūānuku, but are recipients, and therefore stewards, of the natural environment.

¹ The karakia is "a" karakia, and not "the" karakia and is being used to provide context to the interconnectedness between environs and people. It is also important to note that there are many variations to this karakia.

Additionally, the Māori concept and practices of food supply and food security are integral to Māori as they emanate mana (authority), demonstrate manaakitanga (reciprocity of kindness, respect and humanity), and mahinga kai (traditional food gathering places and practices). It is in the latter where the relationship between environment and community and individual health is prominent, whilst also reinforcing whakapapa (genealogical ties), cultural identity and resilience (McKerchar et al, 2015). The ability to provide ample food is a measure of wealth, representing economic and social power, and hence bestowing mana.

1.3 Kaitiakitanga and Response to Climate Change

There is ample research and interview data recorded in a number of reports and articles over the previous decades to gain a reasonable understanding of how Māori view climate change in relation to Te Ao Māori (Law Commission, 2001, Packman et al, 2001, Harmsworth, 2005, 2010, Ministry of Agriculture and Forestry, 2007).

Based on this research, addressing climate change can be seen as being aligned with general principles of kaitiakitanga and on this basis there is a view that Māori are supporters of climate change policy and planning that strengthens and regulates our response to climate change.

This does however need to be within context and acknowledge any limitations or barriers that present for Māori in working through the implementation of policy changes.

Harmsworth et al (2010) notes that Māori landowners interviewed as part of a project indicated that the unique characteristics of Māori land under Te Ture Whenua Act (e.g. collectively) mean policy and initiatives should be specifically tailored to a different process and timeframe in order for Māori business to equitably engage and take up opportunities (Harmsworth et al, 2010).

Māori have clearly prioritised and taken action to be both involved and show leadership in the climate change arena. Being engaged with and forming a response to the effects, impacts and economic risks and opportunities that climate change represents is a key priority for Māori. The Climate Change Iwi Leaders Group was established in 2018 and provides a collective voice and forum for iwi on climate issues. Individual iwi are also developing their own climate strategies to ensure preparedness and alignment with their intergenerational perspectives.

Substantial research on Māori responsiveness to effects and impacts of climate change has been undertaken, most notably the two National Science Challenges; Deep South and Resilience to Nature's Challenges. It is noted that there are research projects that explore the effects and impacts on Māori communities and the economic risks and opportunities for Māori business/commercial activities. These kaitiakitanga perspectives have a broader approach towards responding to climate change rather than specifically focusing on reducing emissions.

The application of fundamental values within kaitiakitanga and opportunity to practice tikanga are key to maintaining and fulfilling the role of kaitiaki. The practice of tikanga (in land use) is addressed further within the context of climate change and tikanga within this report.

The ability for kaitiaki to make their own decisions around what land practices and uses to which land is put is a key element of tino rangatiratanga and the primary method of putting values into practice (Reid et al, 2013).

1.4 Land and Resource User (Contemporary) Application of Kaitiakitanga

For Māori, the whenua (land) is a source of identity, food, and other resources that have sustained people for hundreds of years. As described in the above paragraphs, the whenua is Papatūānuku, the Earth Mother. Land is also the site of waahi tapu (sacred sites) and waahi taonga (historical sites and other places of significance to Māori), such as urupā (cemeteries), battlegrounds, and locations for gathering precious resources (Ministry for the Environment, 2015). Before the arrival of colonial settlers, all land in New Zealand was held as customary land. One of the primary tasks of the early Native Land Court was to define the boundaries of that land and convert it from communally held land by allocating owners and shares, and this has evolved into the Māori land system that exists today, especially distinguishing how land is valued in this modern era (Māori Land Court, 2017).

Māori Freehold Land is considered to hold two values, an economic value and a cultural value. The economic interest in Māori land is, like general land, an economic asset that may be used, and if considered appropriate sold, however, unlike general land, there are significant restrictions on the sale, lease or mortgaging of land. What also may differ are the values around how the land is managed, whilst recognising and providing for the association of its owners (whanau, hapū, iwi) with the land. This association or cultural interest, can be in whole or in part with Māori land and referred to or revered as a taonga tuku iho of special significance to Māori passed from generation to generation (Hikuroa, 2018). All of these elements of Te Ao Māori provide positioning and context and feed into behaviours, values and decision making for Māori. This is particularly relevant where settlement occurs after years of negotiation and results in return of land or property. Considering being forced to part with that property again for any reason, can be hugely distressing.

1.5 Statutory Influence on Kaitiakitanga and Māori Land Management

Although we have defined Māori business within the context of this report and our analysis, we also need to define Māori land as it is relevant in assessing the adaptive capacity and vulnerability within this context. This involves identifying the differences between land ownership and structures and the nuances of these that change the way land is able to be used, and the way and speed with which any changes are likely to be made in relation to any Māori businesses operating on these types of land, or within these types of structures.

Although Māori land includes individually or collectively owned general land, many Māori are working on or with land and making decisions around land that is owned under Te Ture Whenua Māori (Māori Land Act) 1993 (TTWMA). This act defines the types of ownership structures (Journeaux et al, 2017) that can govern and own Māori land and therefore this influences agricultural or horticultural enterprises. These entities are defined under the act as:

Table 20: Types of Māori Land

Types of Māori Land	
Ahuwhenua Trust	designed to manage blocks of multiple owned Māori land and are the most common structure used by Māori landowners.
Māori Incorporation	a body corporate with perpetual succession and with powers which, in form and basic structure, are similar to the joint stock company.
Whenua Topu Trusts	these trusts are similar to the Ahu Whenua trust in that its structure is designed to manage the entirety or major proportion of a tribal estate. It differs in one aspect however, in that the individual's land-owning interests are not maintained.
Whānau Trusts	trusts used by whānau to halt the fragmentation of share interests. The Whānau Trust holds the interests in the land and additional members are added to the list of owners without receiving individual interests

(Adapted from Journeaux et al, 2017)

The challenges that such land ownership sometimes presents are not insignificant.

The ownership structures of Ahuwhenua Trusts, Māori Incorporations, Whenua Topu Trusts and Whānau Trusts each have some constraints, and these should be considered in the context of Māori land ownership, Māori businesses and decision making, land use changes (Reid et al, 2013). Although there is the ability to operate as a more commercially oriented structure (such as Ahu Whenua Trusts and Māori Incorporations) there are still a number of barriers that need to be considered when compared with operating a farm or business operation for non-Māori. The way these elements impact decision-making on Māori land is what makes these processes different from general individuals or organisational land/business owners in at least three important ways:

- Restrictions on alienation (sale) limit the use of assets from being used as collateral, limiting owners' access to credit; Inability to borrow against collectively owned land from traditional (read lower interest) institutions thereby limits uptake, choices for transition and the ability to take up new and emerging technologies.
- Non-economic benefits, such as access to traditional medicines, hunting, providing social welfare, and maintaining a cultural connection to the land, are sources of value, in addition to economic returns; this foundational perspective and desire to retain ownership, derive non-economic value and connection to lands, makes decision making considerably more complex for Māori.
- Long-term, intergenerational impacts receive consideration in most decisions. These differences all stem from cultural values applied to resource allocation decisions (Funk, 2009). It could be argued that both TTWMA and proposed climate change policy may in fact align with these perspectives in more ways than one.
- Further, acknowledgement of the spin off issues around frustrations with limitations of the act and related governance structures, resulting in often heated and emotional trustee meetings that are not conducive to timely, effective or focused decision making on major issues that may

be required (Dell, 2017).

The context of this research and identification of key issues, is important as it significantly changes the responsiveness of Māori business and landowners to new strategic opportunities by affecting the process of decision-making (Reid, 2013).

However, it does need to be acknowledged that for many larger iwi, land holdings are often held under general freehold title, and often with very effective governance in place. Further, land acquired by iwi directly is not likely to be TTWMA land and therefore some of the restrictions identified do not exist in these instances. Not being able to borrow against assets is also not necessarily an issue where considerable wealth has been accrued and lenders are proactively willing to lend. Smaller trusts and incorporations may be hit harder by these issues and barriers. Their ability to mitigate or navigate their way through them is always more limited due to capital, resources and skillsets.

Appendix B: Māori Business Characteristics, Challenges and Operating Rationale and Insights

1. Māori Business Characteristics, Challenges and Operating Rationale

Māori perspectives are entrenched in a deep commitment to future generations through intergenerational decision making. This is based on an enduring relationship with the whenua and the role of humans as kaitiaki. This foundation aligns well for businesses planning for climate change using scenarios that are still considered by many to be far out of traditional business horizons. As with all businesses, Māori businesses are still struggling with the same complexities, operating in the current environment and the realities of shorter-term planning and solutions. In addition to this reasoning, the more sizeable nature of iwi and hapū commercial investments and resourcing make this intergenerational planning more prevalent and a bigger expectation for iwi and hapū commercial enterprises.

The baseline for considering impacts on Māori business rests with the interconnectedness of Māori (and their businesses) with the natural environment. 50% of the Māori asset base has been assessed as being in climate sensitive primary industries including forestry, fisheries, agriculture and to some extent tourism. The Ministry of Foreign Affairs and Trade (2017) notes this as 50% of the fishing quota, 40% of forestry, 30% in lamb production, 30% in sheep and beef production, 10% in dairy production and 10% in kiwifruit production.

“Related to this, about 60% of Maori businesses are export-dependent compared with some 30% for the national average (TPK, 2002). This situation can create a different economic playing field for Maori that can result in different objectives and different outcomes (Packman et al. 2001).”
(King et al, 2010)

The reality for the Tāmaki Makaurau region however, is that the Māori asset base looks considerably different to that outlined as the national norm and requires different considerations detailed further below.

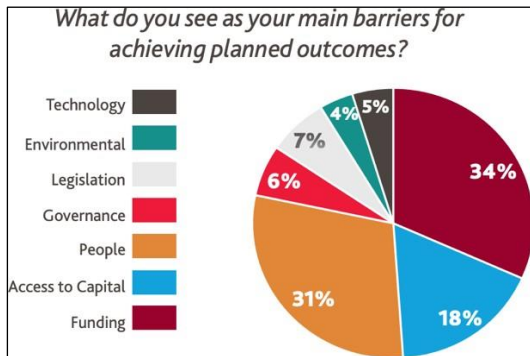
Although the ECCRA does not include consideration of technological advancements to help mitigate and adapt, for these dominant industries that Māori occupy, this may be critical to their ability to mitigate impacts. Through kōrero with interviewees it was clear that Māori businesses have already engaged and are investing in significant research and development in these spaces to identify adaptation actions, mitigation strategies, opportunities for transition and development opportunities. Some private Māori businesses are at the forefront of innovation and technological advancements within these industries.

1.2 Challenges Faced by Māori Business

In terms of business makeup, research indicates that the distribution of the size of Māori-owned businesses is similar to non-Māori-owned businesses. Both Māori-owned and non-Māori-owned businesses are similar in terms of enterprise size, employee count and on GST size (TPK, Te Matapaeroa, 2019).

The primary challenges that Māori businesses face include access to the following:

Table 21: Barriers to achieving outcomes for Māori business



(BDO, 2020)

With the following top three barriers comprising of by far the biggest challenges:

- Funding (34%)
- People – capability & capacity (31%)
- Access to capital (18%)

In the context of this review, these challenges may equate to an increase in vulnerability, potentially reducing businesses adaptive capacity and their ability to access the resources necessary to achieve their aspirations in all areas. This is particularly relevant where action is required to plan and prepare and strengthen their resilience in the face of climate risks and impacts.

An inability to access funding and capital is often flagged as the primary challenge in development for Māori landowners, and further for Māori business owners, particularly SMEs who experience financial exclusion in far greater numbers than non-Māori business owners. This may directly result in an inability to resource the necessary adaptation actions, or remedial work as a result of consequences of the identified risks, and/or to access the necessary advice where capability or capacity are not in house.

In the context of transitional climate change risks, all three of these primary challenges pose an increased risk for all sectors and all risks identified (in this context Visitor Economy and Food and Beverage); and Rental, Hiring and Real Estate Services (TPK, 2019). This finding can in itself provide a great impetus for further research into why these reduced margins exist.

Governance remains critical and is highlighted as one of the major factors of influence for vulnerability and either increasing or decreasing consequences (MfE, 2019). For Māori entities this continues to remain a challenge, with larger and sometimes less suited governance arrangements existing due to the legislative requirements of managing post settlement assets.

Identifying the differences between land ownership and the nuances of these that change the way land is able to be used, and the manner and speed with which these changes are likely to be made, is key to considering any barriers and subsequent impacts.

The other additional component for Māori commercial entities is that they are often diverse in their ownership compared to mainstream corporations, having increasingly spread their operations across sectors. In the Tāmaki Makaurau region the primary sources of income are nearly all interconnected

with the industries and sectors under consideration within this report. For example, Ngāti Paoa, in addition to their reasonably strong farming assets base, the primary other area of investment that they have pursued is property development (Ngāti Paoa, 2016). Ngāti Whātua o Ōrakei owns an asset base 100% property focused, but has an interest in tourism operations in partnership (Ngāti Whātua, 2020). The direct connections between the construction risks and development, as well as the risks identified for farming or tourism, make the level of exposure greater for iwi and hapū when they are operating with multiple businesses or operators thereby being exposed to risks contemporaneously.

1.3 Māori Business Insights from Interviewees

The interview process within this review enabled a window into the operations of the Māori businesses engaged. Those interviewed were keen to contribute input around how they felt their businesses were different to others in the industries and the interviews gave them an opportunity to reflect on this question.

Some key statements of note across the sectors were:

“There is no one Māori perspective on this nor are the situations the same for all.”

“It’s easy for us to think intergenerationally.”

“The key things for iwi are increasing capacity of mana whenua and supporting our own. How do we realise aspirations.”

“Whanaungatanga, we adopt our staff, it’s a whanau. We don’t treat them like employees and this impacts on how we are as employers. We definitely are not the same as other ‘businesses’.”

“The situation for iwi/hapū is very different than that of small to medium businesses in these industries. Iwi have decision making powers and links to businesses. Māori business will be far less resilient and have a far smaller asset base.”

“The primary reason Māori businesses face more headwinds is because they are newer in a lot of these spaces and emerging means less resilience and less ability to learn off others, bounce ideas around and less likely to have other businesses in a group to buffer that investment.”

“There is a greater expectation on Māori to be working and actioning sustainably.”

1.4 Operating Rationale for Māori Business

A recent report by BDO indicates that the primary purposes for businesses within the Māori sector were:

- Cultural, social, & environmental outcomes
- Profit to drive purpose
- Employment
- Asset growth (BDO 2020).

The operating rationale for many Māori businesses underpin their decision making and are considered

akin to economic KPIs within the business realm. In the context of Māori commercial entities operated by iwi and hapū PSGE, their commercial entities are guided by vision and purpose that is centred primarily on increasing the wellbeing of te taiao and te tangata. These PSGEs collectively uphold these expectations on behalf of their people and provide oversight and budget to ensure these priorities are upheld. The BDO (2020) report indicated that the top three keys to success for achieving their purpose in the sector were deemed to be:

- Happiness & well-whānau
- Financial performance
- Cultural wellbeing

Both the purposes identified and the keys to achieving them acknowledge the role that profit plays, and the reality is that Māori commercial entities are still focused on achieving profit for their tribal members benefit, similar to other corporates driven by shareholder returns. The difference lies in the direct link between the use of those funds for wellbeing of the collective, (with most parent entities being Charitable Trusts driven by charitable purposes) rather than the personal gains of individuals. For Māori businesses owned collectively by iwi and hapū members, any impacts on these businesses are immediately amplified by virtue of the number of people that are relying or supported by that business' success. This is to some extent magnified within Māori owned SMEs who also have been found to operate under similar values-based rationale (TPK, Te Matapaeroa, 2019).

Each iwi and hapū collective, Māori business and individuals have their own identified aspirations, however the Independent Māori Statutory Board (IMSB) have developed in consultation with mana whenua and mataawaka a set of goals and aspirations for Māori within the region.

These value baselines equate to increasing impacts when a business or commercial enterprise faces financial hardship or is forced to pivot without forethought or planning. This is not only true for Māori commercial entities; it also influences many private Māori operations who through the influence or visibility of these expectations of their iwi, or their own aspirations, seek to uphold the key tenets of kaupapa and tikanga Māori. Principles of manaakitanga, whanaungatanga, kaitiakitanga and kotahitanga for example, often guide Māori business operations. These expectations and guiding principles do however also reduce exposure to some of the risks identified by enabling swifter and earlier adaptation and mitigation measures to be adopted, and therefore spreading the costs of adaptation and mitigation earlier without compromise. Businesses perceive mitigation and adaptation actions as a normal part of conducting business rather than an additional cost.

The focus on supporting other Māori, achieving social good and wellbeing, alongside caring for our environment is a paramount objective for Māori businesses. Although these foci are becoming increasingly more common as motivators for non-Māori business, as a rule they are not a baseline of operations. It is the norm and in fact often an expectation for Māori businesses to be reaching, helping and supporting their own and te taiao. This creates an increased exposure for whanau and an increased impact when things become challenging for their business.

As a result of these principles, procurement is a big reason for economic impact or heightened exposure to risk being different for Māori business. Māori businesses often have increased focus on helping whanau through job opportunities and higher familial connections in the workplace. This also influences their decision making and resulting tipping points, which sees businesses retaining staff

longer than they would have, if there were no familial links to staff, putting the business under further pressure. Considering this alongside the knowledge that the wriggle room found within margins in non-Māori businesses differs considerably for those comparable sector Māori owned businesses. With smaller margins often comes greater exposure, and fewer options.

Research has also found that Māori-owned businesses employ more Māori. With 43% of employees of Māori-owned businesses being Māori, compared to 14% for non-Māori-owned businesses (TPK, 2019).

Often all employed members of a whanau can be contributing to the running of the same business and the family unit may be solely dependent on its profitability, rather than having a family member employed elsewhere to buffer any financial hardship resulting from a downturn. When a business such as this face difficulties this can have a deeper impact on whānau within the business and also on the business' other non-financial objectives, such as their commitments to te taiao.

Appendix C: Review of Māori Economy in Tāmaki Makaurau

1. The Māori Economy in Tāmaki Makaurau

The iwi and hapū recognised by the Crown in the Tāmaki Makaurau region are:

Table 22: : Iwi and Hapū recognised by the Crown in the Tāmaki Makaurau region

Ngāti Whātua	Ngāti Tamaoho	Ngāti Manuhiri
Ngāti Whātua o Kaipara	Te Ākitai Waiohua	Te Kawerau ā Maki
Ngāti Whātua o Ōrākei	Ngāti Maru (Hauraki)	Ngāti Te Ata Waiohua
Te Uri o Hau	Te Patukirikiri	Te Ahiwaru
Ngāti Rehua	Ngāti Paoa	Waikato, Waikato-Tainui
Ngāti Wai	Ngāi Tai ki Tāmaki	Ngāti Whanaunga
Ngāti Tamaterā		

Although this assessment originates from the ECCRA, an economic assessment, the values or drivers for Māori as iwi and hapū, are at the heart of all they do. The pursuit of these drivers in the case of iwi and hapū entities and often for private Māori business, are often visible in the development of their business interests. These business interests are also in turn intended to support the pursuit of their goals and aspirations.

Of these iwi and hapū within the region, some have resolved and settled grievances with the Crown under Te Tiriti o Waitangi settlement claims processes. This has resulted with the Crown providing redress in the form of cash, Crown properties with perpetual leases, reserves, and protected areas, commercial property and access to other assets that become available in the future under ‘rights of first refusal’ agreements. Many of these iwi and hapū have established PSGEs to govern and manage these assets and these entities play a significant role in the Auckland Māori economy.

In considering the Māori economy at a national level, it is a current and future force to be reckoned with. According to a report by BERL, the financial value of the Māori asset base in 2018 totalled \$68.7 billion comprising:

- \$39.1 billion assets in the businesses of 9,850 Māori employers
- \$21.0 billion assets in trusts, incorporations, and other Māori entities
- \$8.6 billion assets in the businesses of 18,600 self-employed Māori.

Key elements of this economy include significant growth in the Māori population and labour force which indicates that Māori will be a rising proportion of the future workforce. An increase in the diversity of the Māori asset base has been seen, with the primary sector dominance beginning to disperse, which accordingly assists with spreading risk and increasing resilience (BERL, 2018).

This economy is an engine of growth with the businesses of Māori employers becoming increasingly prominent and with high numbers of skilled Māori moving into entrepreneurship and employing considerable numbers of people. Iwi and hapū organisations are growing at a faster rate than all New Zealand businesses, and had an 18% increase in employees since 2012 (Stats NZ, 2019).

The data indicates which industries dominate the Māori economy:

- Natural-resource based sectors continue to dominate with assets in agriculture, fishing, and forestry totalling \$23.4 billion (This includes \$8.6 billion in sheep and beef farming; \$4.9 billion in dairy farming; \$4.3 billion in forestry; \$2.9 billion in fishing and aquaculture; and \$2.6 billion in other agriculture (including horticulture)).
- \$16.7 billion of assets in real estate services, including commercial, industrial, and residential property
- \$4.9 billion of assets in the manufacturing industry, including \$2.3 billion in food processing and wood and paper manufacturing
- \$4.2 billion of assets in transport
- \$3.1 billion in construction (BERL, 2018).

The Tāmaki Makaurau region alone receives over a \$12.5 billion share of this economy. The largest in the country. Further, 14,700 Māori Sole Traders have been identified in recent research, with 3,795 of these based in Tāmaki Makaurau (TPK, Te Matapaeroa, 2019). The research also identified 1,389 Māori owned businesses in the Tāmaki Makaurau region.

The Māori economy accounted for 9% of the Auckland economy (Sense Partners, 2020), however it is inaccurate to base such assessments on data alone, particularly for the Māori economy where the strength of Māori SMEs is often discounted or has not been quantified.

We do know however that the 'value' that Māori business brings outside of the obvious economic returns, is great. These are often intangibles that are not easily quantified in monetary terms, but do contribute considerably to the wellbeing of people and the environment; this of course is good for our economy.

Other sector specific Māori data that was of interest detailed that there were two overall for Māori business are considerably less than for their non-Māori counterparts (TPK, Te Matapaeroa, 2019).

Further sector specific data is included within the sector summaries in the report.

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