

HAWKE'S BAY – PEOPLE, PLACE, PROSPERITY.

THE SOCIAL IMPACT OF LAND USE CHANGE IN HAWKE'S BAY.

KELLOGG RURAL LEADERSHIP PROGRAMME

COURSE 41 2020

CLARE EASTON

I wish to thank the **Kellogg Programme Investing Partners** for their continued support:

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EXECUTIVE SUMMARY

2020 – a year most of us will never forget – a year of reflection of what truly matters. Our narrative for so long in New Zealand has been about protecting the environment and our beautiful natural assets. But with the onset of COVID-19 we saw the narrative shift and our primary focus became people – people’s health, well-being, and livelihoods. We became a ‘*team of 5 million*’ and previous perceptions of urban and rural divides became non-existent as growers, farmers, and producers were the ‘*essential services*’ that got us through.

The below Māori proverb perfectly encapsulates this people-centric view that resonates with me so strongly:

**“HE AHA TE MEA NUI RAWA?
HE TĀNGATA, HE TĀNGATA, HE TĀNGATA.**

**WHAT IS THE GREATEST THING?
IT IS PEOPLE, PEOPLE, PEOPLE.”**

The following research question was subsequently developed: what is the **social impact** of changing land use in the Hawke’s Bay region?

The objective of the research is to provide another layer of insight and use this as a platform for further collaboration and conversation – understanding the social impacts (real and perceived) of contrasting primary sector investment in rural Hawke’s Bay – comparing sheep and beef, horticulture, dairy and forestry.

Hawke’s Bay is a place of diverse geographies, climate, people, and culture. Qualitative research was undertaken to bring the voice of the people to this report. A wide cross-section of pan sector viewpoints were interviewed inclusive of iwi, corporate, regional/local government, industry bodies and farmers.

Three key themes emerged from the interviews and thematic analysis regarding the social impact of changing land use:

1. **Employment and training** opportunities
2. **Values and perceptions** of changing land use
3. **Māori** communities and post settlement land use

It is projected that from 2020 to 2050 Hawke’s Bay will have a 66.8 percent increase in forestry and 35.8 percent increase in horticulture. These are significant shifts and there is a responsibility on farmers, investors, industry leaders and government bodies to collaborate to ensure positive social outcomes.

The following report provides diverse insights coupled with recommendations to enable positive social outcomes in the region. The future is exciting and there is no one single answer. However, we must think holistically to deliver a positive triple bottom line – social, environmental and economic outcomes to sustain for generations to come.

FORWARD



I am originally from a small sheep and beef farm in Central Hawke's Bay. After finishing my schooling at Central Hawke's Bay College, I moved to the Waikato where I gained a Bachelor of Management Studies with First Class Honours from the University of Waikato.

I spent my school and university holidays working on the land – whether it be docking lambs, weighing bulls, thinning apples, grading potatoes, weeding squash, or milking cows. I have a deep connection to the land through my immediate and extended family who have worked on the land in varying capacities for generations in the Hawke's Bay and Manawatu.

Although holding initial roles in strategy and consulting-based positions, I fell into supply chain by chance and have worked in planning and logistics for the last eight years – first in forestry machinery and now in horticulture.

I am currently employed as the Head of Global Planning and Logistics for T&G, managing a team of up to 20 staff to deliver 6.5 million cartons of apples from Gisborne, Hawke's Bay, Nelson and Otago to our customers all over the world.

The lowlight of my Kellogg project was driving to Wairoa and an engine light coming on in my Jeep – this was followed by a three-hour roadside wait for a tow-truck and a call to the Mayor to say I was having some technical difficulty and we'd have to reschedule – thank you Craig for being so patient and accommodating!

The highlight was calling Steve Wyn-Harris to request an interview. He quickly turned the table and asked to interview me his radio show – The Cockies Hour – on Central FM. I went to school with Steve's eldest son, Jason, and it was lovely to reconnect and have a robust discussion on the future of the sector as well as a side of politics.

I would like to sincerely thank all my interview participants – I have gained so much insight and understanding out of every single interview.

Finally, I would like to thank Tom Keefe. Tom and I started the year with me cold-calling to see if I could get some fruit packed for a customer in the Pacific Islands. Once Tom found out I had started the Kellogg Programme, and as a previous Kellogg candidate himself, he has provided unwavering support and grown to be a mentor and friend through this journey.

Enjoy!

A stylized, handwritten signature in black ink, consisting of a large, flowing 'C' shape followed by a horizontal line.

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0. INTRODUCTION



During COVID-19 lockdown, disconnected from my team and family, I had a lot of opportunity to think about what really matters. Our narrative for so long in New Zealand has been about protecting the environment and our beautiful natural assets. But with the onset of COVID-19 we saw the narrative shift and our primary focus became people – people’s health, well-being, and livelihoods. We became a ‘*team of 5 million*’ and previous perceptions of urban and rural divides became non-existent as growers, farmers, and producers were the ‘*essential services*’ that got us through.

The below Māori proverb perfectly encapsulates this people-centric view that resonates with me so strongly:

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**WHAT IS THE GREATEST THING?
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From my introspection the following research was born; to look at changing land use in the Hawke’s Bay region with a social lens.

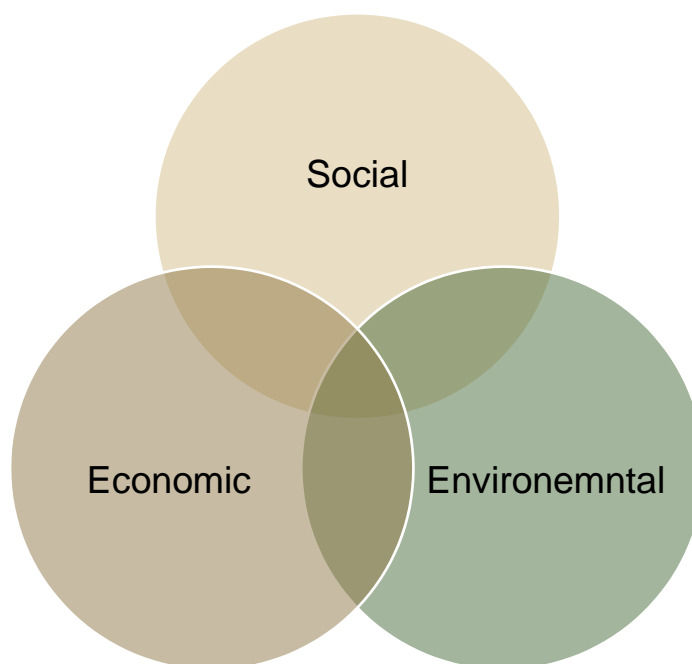
0.1 RESEARCH QUESTION

What is the **social impact** of changing land use in the Hawke’s Bay region?

- How receptive are we to changing land use?
- How are we preparing for land use change at the farmer, corporate, iwi, industry body and local/regional government levels?
- What does success look like for positive social outcomes?
- How can we do better to ensure we have thriving rural communities?
- Are there opportunities to learn from each other and share success?

The objective of the research is to provide another layer of insight and use this as a platform for further collaboration and conversation – understanding the social impacts (real and perceived) of contrasting primary sector investment in rural Hawke’s Bay – comparing sheep and beef, horticulture, dairy and forestry.

The triple bottom line of economic, environmental, and social outcomes is touched on throughout the report as it is difficult to separate these – but the core focus is the social impact.



0.2 WHAT IS SOCIAL IMPACT?

“Social impacts can be defined as the consequences to people of any proposed action that changes the way they live, work, relate to one another, organise themselves and function as individuals and members of society. This definition includes social-psychological changes, for example to people’s values, attitudes and perceptions of themselves and their community and environment” (Allen and Clarke, 2007).

Social impact assessment is widely used to predict and measure the effects of investment decisions on the people and communities. It is a good decision-making tool and can help to:

- identify key stakeholders,
- facilitate participation in decision making,
- assess alternatives to achieve desired outcomes,
- understand cultural and historical context,
- understand local values, and
- determine whether investment or change should go ahead.

(Allen and Clarke, 2007).

1. HAWKE'S BAY

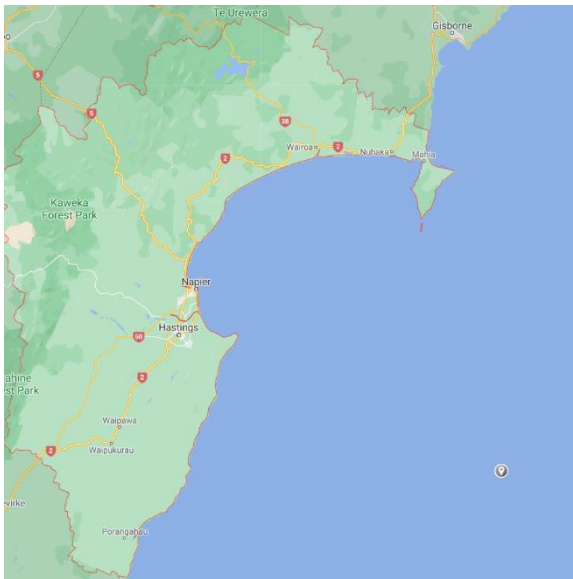


1.1 OVERVIEW

To provide context for this report, the following few pages provide a high-level overview of Hawke's Bay – geography, people, economy, climate, and land use.

1.1.1 GEOGRAPHY

The Hawke's Bay Region is 14,138.01 square kilometres or 1.41 million hectares (Statistics New Zealand, 2020). Key land marks include the mountain ranges of Te Urewera, Kaweka Forest Park and Ruahine Forest Park; 350 kilometres of diverse coast line including the renowned Cape Kidnappers; as well as Lake Waikaremoana and seven major rivers – Wairoa, Mohaka, Esk, Ngaruroro, Tūtaekurī, Tukituki and Waipawa (Hawke's Bay Regional Council, 2020).

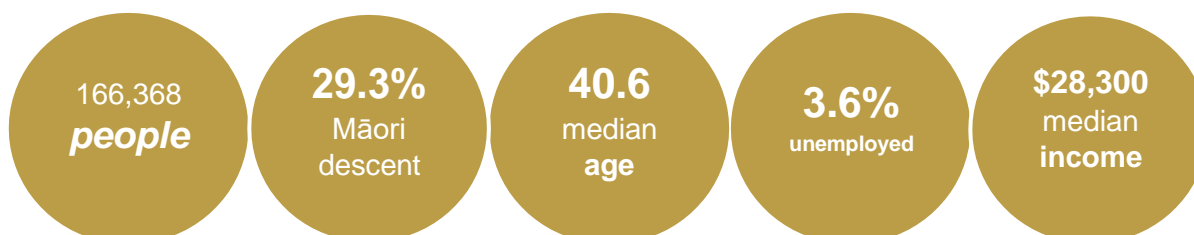


Hawke's Bay can be split into four distinct subregions, Wairoa District, Hastings District, Napier City, and Central Hawke's Bay District which is reflected in the makeup of the four local councils as well as the overarching Hawke's Bay Regional Council (Hawke's Bay Regional Council, 2020). There are two major cities, Napier, and Hastings, as well as a number of smaller towns and settlements (Hawke's Bay Regional Council, 2020).

Hawke's Bay is also home to the nationally significant (part of the 3% of Class 1 land in New Zealand), highly fertile Heretaunga Plains where there is an abundance of orchards and vineyards (Hawke's Bay Regional Council, 2020).

1.1.2 PEOPLE

The Hawke's Bay population totals just over 166,000 people (Statistics New Zealand, 2020). The below population statistics are based on 2018 Census Data and although the unemployment rate is comparable (slightly below) to the national average of 4 percent, the Hawke's Bay region is a significantly more low wage society than the national average. The median income is 12 percent lower in Hawke's Bay than the New Zealand average at \$28,300 compared to \$31,800. Interestingly, Hawke's Bay also has a lower percentage of earners over \$70,000 at 12.5 percent compared to 17.2 percent nationally (Statistics New Zealand, 2020).



The population statistics can be mis-leading when not broken down to the sub-region as the socio-economic profile of the Wairoa District is significantly different, with the median income even lower at \$22,600 and unemployment at 7.2 percent. The below table provides a breakdown by the four sub-regions.

QUICK FACTS

	<i>Wairoa District</i>	<i>Hastings District</i>	<i>Napier City</i>	<i>CHB District</i>
Land area (sq km)	4,077.28	5,150.40	105.05	3,302.44
Population	8,367	81,537	62,241	14,142
Median Age	38.6 years	39.1 years	42.0 years	44.2 years
Males	4,194	40,029	29,766	7,014
Females	4,173	41,511	32,478	7,125
Māori	5,493	22,269	13,800	3,351
Māori Median Age	29.4 years	25.2 years	24.2 years	26.6 years
Māori Descent	66.9%	29.6%	24.5%	26.2%
Unemployed	7.2%	3.4%	3.5%	2.9%
Median Income	\$22,600	\$28,400	\$28,900	\$29,000

Statistics New Zealand (2020)

MĀORI

Hawke's Bay is rich in Māori culture and history with almost 30 percent of the Hawke's Bay population of Māori descent (Statistics New Zealand, 2020). There are 11 iwi groups, 91 hapū and 79 marae throughout Hawke's Bay (Ngāti Kahungunu Iwi Inc, 2020). Over 11 percent of land in Hawke's Bay is Māori freehold land and 8 iwi groups are represented with Post-Settlement Governance Entities (PSGEs) on the Hawke's Bay Regional Planning Committee (Hawke's Bay Regional Council, 2020).

Ngāti Kahungunu is the third largest iwi population (9.2 percent of total Māori population) in New Zealand centred in the Hawke's Bay and Wairarapa regions. Geographically, Ngāti Kahungunu has the second largest tribal rohe (boundary) in the country, from the Wharerata Ranges in the Wairoa District to the Remutaka Range in South Wairarapa (Ngāti Kahungunu Iwi Inc, 2020).

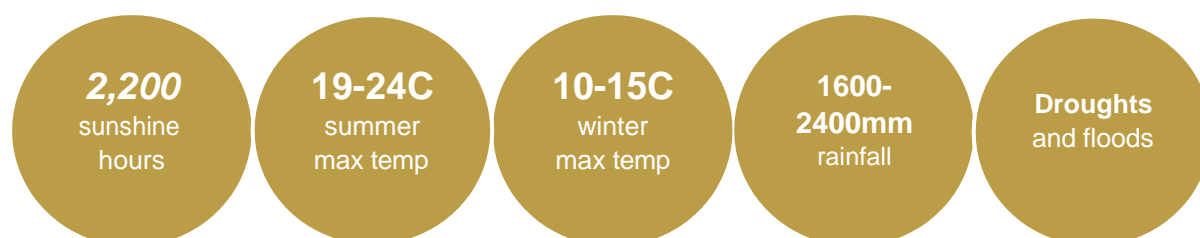
1.1.3 ECONOMY

To the year ended March 2019, the Hawke's Bay regions Gross Domestic Product (GDP) totalled \$8.7 billion or 2.9 percent of the total New Zealand GDP (Statistics New Zealand, 2020). The largest industries in Hawke's Bay are manufacturing, specifically primary manufacturing and agriculture including horticulture, grain, sheep, beef and dairy farming. These industries represent 23.7 percent of the regions GDP. The Hawke's Bay economy increased by 31.8 percent over the last 5 years above the national increase of 30.4 percent (Statistics New Zealand, 2020). In 2019, agriculture, forestry and fishing were the largest employing industries in the region followed by manufacturing and then health care and social assistance (Infometrics, 2019). The Napier Port is an important part of the regional economy as the key supply chain link to global export markets for logs, forestry products, apples, meat, and other primary produce. 51 percent of regional GDP is associated with Napier Port activities (Napier Port, 2020).

As at May 2020, the median house price in Hawke's Bay was \$545,041. Property prices have increased on average 6.79 percent every year for the last 10 years. (Opes Partners, 2020).

1.1.4 CLIMATE

The Hawke's Bay is known for its temperate climate and high sunshine hours. The rainfall is variable depending on geographic location and can vary as much as 800mm per annum in central plains to 2,400mm per annum in inland mountains or coastal ranges. Droughts and dry spells are common in Hawke's Bay especially between October and March (Te Ara, 2020).



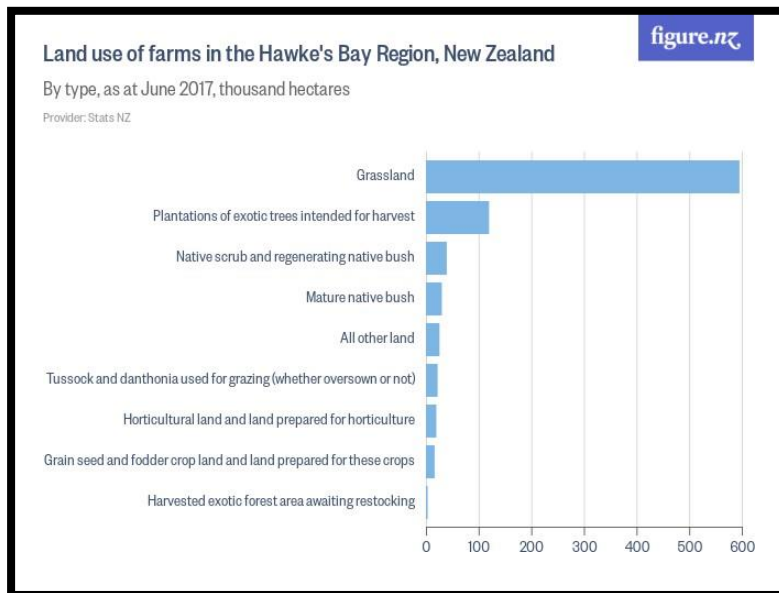
Ministry for the Environment, provides the below climate change projections for the region to 2090 (compared to 1995):

Temperature	0.7°C to 1.1°C warmer by 2040 and 0.7°C to 3.1°C warmer
Rainfall	<ul style="list-style-type: none">Winter rainfall to decrease by 2 to 17 percentSpring rainfall to decrease by 2 to 13 per centSummer and Autumn rainfall are both expected to increase
Wind	Not likely to change significantly
Storms	Minor change compared to the natural inter-annual variability
Sea level rise	Average rise in relative mean sea level of 1.7 mm per year

(Ministry for the Environment, 2020)

Overall, warmer temperatures, a longer growing season and fewer frosts could provide opportunities for the agri-food and fibre sector in Hawke's Bay – such as diversification into new crops, faster growth of pasture and better growing conditions. However, the projections do indicate prolonged drought, increasing pressure on water resources and potential greater intensity of storms which may offset any potential opportunities (Ministry for the Environment, 2020).

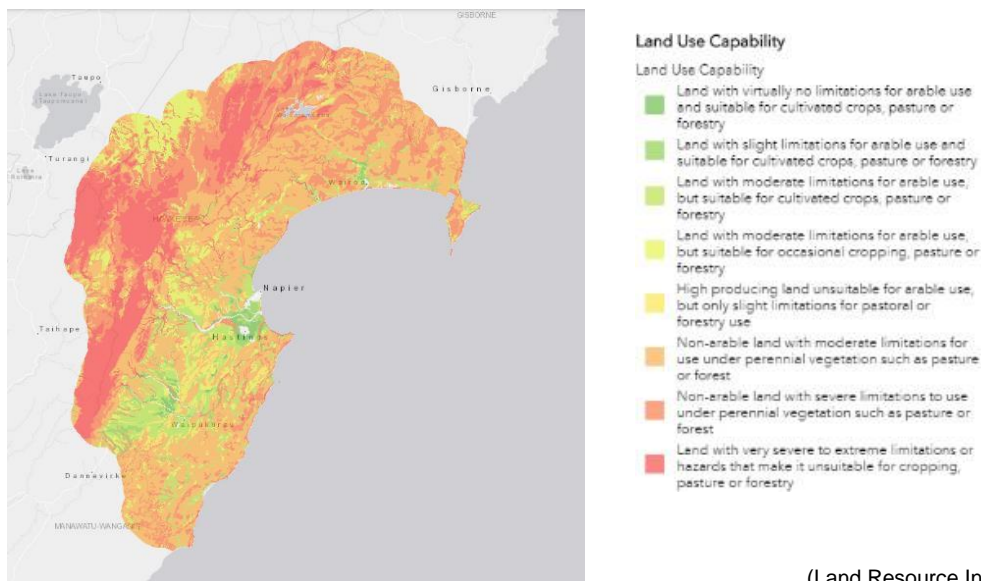
1.2 EXISTING LAND USE



Statistics New Zealand data shows that Hawke's Bay land use is predominately sheep and beef followed by exotic forest.

From 2012 to 2016, land in sheep and beef has decreased from 713,565 hectares to 694,848 hectares. In contrast, land in forestry has increased 127,843 hectares to 132,3300 hectares. All other changes in land are relatively minor (Statistics NZ, 2020).

The below heat map provides land use capability in the region.



(Land Resource Information Systems, 2020)

1.3 PROJECTED LAND USE CHANGE

In 2019, Motu prepared a report for the Interim Climate Change Committee summarising the socio-economic characteristics most likely to be impacted by land use change between 2020 and 2050. The projections are based on the LURNZ modelling system which considers economic drivers and their land use responses as well as geographical characteristics of the land to provide proxies for costs and yields (Motu, 2019).

Four main types of land-use changes are identified between 2020 and 2050 –

1. dairy to horticulture,
2. scrub to forestry,
3. sheep/beef to forestry, and
4. sheep/beef to scrub.

Based on the model, for Hawke's Bay the projection is for most notably a 66.8 percent increase in forestry and 35.8 percent increase in horticulture.

2020-2050 Hawke's Bay	Dairy	Sheep and Beef	Forestry	Horticulture	Scrub
% Change Land Use in hectares	-1.1%	-8.5%	66.8%	35.8%	-84.5%

It is important to consider holistic drivers for land use change specifically economic, policy, and environmental considerations, some of which are listed below.

1.4 MACRO FACTORS

ONE BILLION TREES PROGRAMME

- Te Uru Rākau is focused on supporting the planting of exotic and indigenous forests, sustainable forest management and programmes like the Emissions Trading Scheme and forestry grants (Te Uru Rākau, 2020)

MARKET FORCES

- Economic return on forestry (PWC, 2020).
- Carbon Farming (NZ Carbon Farming, 2020)
- Commercialisation of new high value plant varieties (Ministry for Primary Industries, 2020)

CLIMATE CHANGE

- He Waka Eke Noa is a partnership focused on reducing primary sector emissions (Ministry for the Environment, 2020).

ACCESS TO WATER

- Increased incidence of drought conditions
- Water restrictions and storage debates (AgFirst, 2017).

2. METHODOLOGY



The content of this report is qualitative and based on a review of previous literature on this topic and semi-structured interviews with 16 people across the Hawke's Bay region. The approach was to interview a cross-section of pan sector viewpoints inclusive of iwi, corporate, regional/local government, industry bodies and farmers.

The interviews were organic – usually starting with the interview participants' background to their role and the agri-food and fibre industry, before providing a brief introduction on the general context of the research and the conversation would shape from there.

Notes from the interview were then tabulated into subject areas or themes. Not all interviews covered all themes based on the interviewee's expertise, experience, or willingness to comment on a topic. From the tabulated notations of each interview, a thematic analysis was carried out where key themes were compared and contrasted to prepare this report.

The tabulated notations are included in Appendices 1-14, pages 36 through 65.

I would once again like to thank all of those who agreed to participate in my research project. The one thing that resonated with me most strongly is that we have some hugely passionate people in our region, doing amazing things that I wanted to be able to highlight and share using the Kellogg Rural Leaders platform.

2.1 INTERVIEW PARTICIPANTS

Annie Aranui	East Coast Commissioner, Ministry of Social Development
Karen Bartlett	Regional Labour Manager, Ministry of Social Development
Keith Dolman	CEO – Hawke's Bay Forestry Group
Rex Graham	Chairman, Hawke's Bay Regional Council
Tom Keefe	Director/Chairman, Ngāti Pāhauwera Commercial Development Ltd
Dr Peter Klaassen	General Manager – Horticulture, Craigmore
Craig Little	Mayor, Wairoa District Council
Lewis Rapatu	General Manager, Tātau Tātau o Te Wairoa
Morgan Rogers	Head of Innovation and Technical, T&G Global
Tim Sandall	General Manager - Forests, Pan Pac
Erin Simpson	Capability Development Manager, New Zealand Apples and Pears
Leon Symes	Chairman, Tātau Tātau o Te Wairoa
Alex Walker	Mayor, Central Hawke's Bay District Council
Simon White	Mixed Cropping/Arable, Sheep and Beef Farmer, Ōtane, Central Hawke's Bay
Maurice Windle	Regional Supply and Service Manager – East Coast, T&G Global
Steve Wyn Harris	Sheep and Beef Farmer, Waipukurau, Central Hawke's Bay

3. FINDINGS AND DISCUSSION



Three key themes emerged from the interviews and thematic analysis regarding the social impact of changing land use:

4. **Employment and training** opportunities
5. **Values and perceptions** of changing land use
6. **Māori** communities and post settlement land use

3.1 EMPLOYMENT AND TRAINING

3.1.1 COMPARING EMPLOYMENT & LAND USE

The 2019 report prepared by Motu for the Interim Climate Change Committee reported national averages of Full Time Employees (FTEs) employed per 1000 hectares by land use based off 2013 Census Data – these are tabulated below with sheep and beef highlighting the highest level of FTEs at 5:

	Dairy	Sheep and Beef	Forestry	Horticulture
FTEs / 1000 hectares	2.1	5	3	4.5

(Motu, 2019).

The projections to 2050 of the Motu report of land use change in Hawke's Bay projected an overall net employment increase of 752 jobs in the agri-food and fibre sector.

2020-2050 Hawke's Bay	Dairy	Sheep and Beef	Forestry	Horticulture
% Change Land Use in hectares	-1.1%	-8.5%	66.8%	35.8%
Changes in FTE (Full Time Employee)	-8	-230	343	648

(Motu, 2019).

In 2019, Beef and Lamb New Zealand commissioned Baker Ag to prepare a report on the socio-economic impacts of large-scale afforestation in the Wairoa district (Harrison, E & Bruce, H., 2019). The report specifically compared sheep and beef versus forestry models focusing

on economic returns, direct local expenditure, and employment. The report showed slightly different statistics per 1000 hectares, stating that sheep and beef consistently generates 7.4 local jobs per annum compared to forestry at 2.2 local jobs per year except in the year of harvest (year 30) where this would rise to 5.1 local jobs.

In 2020, PWC prepared a report for Te Uru Rākau which cited 7 direct FTEs per 1,000 hectares for sheep and beef compared to 11 FTEs per 1,000 hectares for forestry (PWC, 2020). The inconsistency in data makes the debate more contentious.

Several interview participants associated with the Wairoa District provided first-hand experiences of increasing forestry and the negative impact on employment. Key concerns raised included the irregularity of the peak in labour requirement (every 30 years) and the use of employees external to the region rather than local employment. A number of interview participants also raised that meat processing had been the 'back-bone' of the Wairoa community as Wairoa's biggest employer. They stated that the conversion of land from sheep and beef to forestry had already seen significant declines in employment.

“THE INCREASE IN FORESTRY IS THREATENING THE VIABILITY OF THE FREEZING WORKS WHICH HAS BEEN A KEY EMPLOYER FOR WAIROA. FORESTRY IS TYPICALLY FIFO – AND DOESN'T EMPLOY LOCALS IN THE REGION.”

LEWIS RAPATU, GENERAL MANAGER, TĀTAU TĀTAU O TE WAIROA

Local labour versus labour brought in external to the region was raised as a key concern. This was the experience of multiple interview participants when speaking about both forestry and horticulture labour supply. For horticulture, the focus and importance placed on the RSE (Recognised Seasonal Employer) Scheme was raised as a direct contradiction to forecast increased jobs for the local workforce.

However, horticultural industry interviewees raised that the volume of new plantings will easily exceed the total labour pool that Hawke's Bay and the RSE Scheme has available. Morgan Rogers, Head of Innovation and Technical at T&G Global proposed a more holistic level of labour planning was required to think across RSE, local labour and automation options to ensure crops were harvested. The 2020 Food and Fibre Strategy – Fit for a Better World (Ministry for Primary Industries, 2020) has lofty inclusiveness targets to employ 10 percent more Kiwis in the primary sector by 2030 as well as an additional 10,000 more New Zealanders in the primary sector workforce over the next four years.

A key learning from the interviews was that job creation is not enough and that there is a key role for education and training. “Different levels of skill will be required across the jobs spectrum, and as part of Budget 2020 \$25.3 million has been invested to attract and retrain recently unemployed New Zealanders into the primary sector (Ministry for Primary Industries, 2020).

3.1.2 ENTRY PATHWAYS & SUSTAINABLE EMPLOYMENT

The matching of jobs and skills was highlighted as critical to providing pathways to entry into the sector. Interviews with Ministry of Social Development (MSD) staff highlighted several successful industry partnerships that were providing entry level pathways that were then progressing into full-time employment. The seasonality of peak labour for different parts of the sector was raised as a key challenge in ensuring sustainable employment options for locals.

“WE NEED TO FOCUS ON ENSURING THERE IS A PATHWAY TO SUSTAINABLE EMPLOYMENT – THE ENTRY LEVEL OPTIONS OF THINNING, HARVEST, PLANTING ARE THERE AND THEN IT IS ABOUT PROGRESSION.”

KAREN BARTLETT, REGIONAL LABOUR MANAGER, MINISTRY OF SOCIAL DEVELOPEMT

Interview participants cited success stories external to the agri-food and fibre sector of integrated approaches between government, government agencies and industry that had been successful. One of these examples was the National Mayors Fund which was provided to local government as part of the COVID recovery fund to accelerate employment outcomes for youth (Appendix 11, Alex Walker, 2020). This involved 40 Central Hawke’s Bay youth learning on the job for the Central Hawke’s Bay District Council working on tree maintenance, traffic management and other environmental projects. This was a collaborative effort between local council, Eastern Institute of Technology (EIT), MSD, and Te Taiwhenua which has successfully resulted in several of the 40 participants being successfully re-deployed into roles with council sub-contractors. A key learning from MSD was to ensure that success stories of collaboration are shared widely. A good example of this was an initiative between MSD, Gisborne City Council and the construction sector who increased local employment post-COVID with Provincial Growth Funded (PGF) shovel-ready projects and community engagement. Annie Aranui of MSD, stated that the Gisborne Herald was running a story at least once a week which was helping to drive and grow the positive social outcomes of these infrastructure projects.

A challenge cited by most interviewees was the ability to highlight roles through the full supply chain in the sector rather than the traditional images of people working out in the field – thinning, picking, planting etc. Questions continuously posed back to the interviewer included:

- How do we attract the right people to the region?
- How do we attract and retain the talent pool?
- How do we show career paths in primary sector not just seasonal labour?
- How do we add the “glamour pull” to the sector?

3.1.3 SUCCESSION PLANNING & FUTURE THINKING

A number of interview participants highlighted the 'old knowledge' in the sector overall and particularly in horticulture. The failure of the 'old boys' network' to share knowledge, train and develop entrants to the industry is creating a bottleneck of capability. A number of participants highlighted that the generational gap was evident in the sector and in Hawke's Bay overall with the ageing population.

“THE EMPLOYER – EMPLOYEE RELATIONSHIP HAS CHANGED WHICH HAS CREATED A LAYER OF COMPLEXITY FOR POSITIVE SOCIAL OUTCOMES – THERE IS A PERSISTENCE FOR MILLENNIALS TO CONFORM TO A BABY-BOOMER VALUE SET.”

ALEX WALKER, MAYOR, CENTRAL HAWKE'S BAY DISTRICT COUNCIL

Succession planning is a key risk for the sector overall but there are proactive examples of bridging this gap. The Growing Future Farmers programme (Growing Future Farmers, 2020) is farmer driven, and about getting young people onto farms to fill the pipeline. Waipukurau sheep and beef farmer, Steve Wyn Harris, was in the process of bringing someone onto his farm through this programme and was excited by the industry led initiative that would have a win-win outcome for the farmer and for youth employment and engagement with the sector.

With significant increases in land use forecast for both horticulture and forestry, it was evident this still a gap in creating the pipeline of employees. In 2020, Ministry for Business and Environment (MBIE) has launched 15 Regional Skills Leadership Groups across New Zealand including one in Hawke's Bay (MBIE, 2020). A number of interview participants were involved in these groups. Although in the infancy stage, the objective is to identify the future needs of the region and provide support and mechanisms to meet the future needs. Reforms in vocational education and regional economic plans as part of the COVID recovery were highlighted as key enablers by interviewees. COVID was cited to have accelerated the rate at which industry participants have had to think about the future and work in a more collaborative nature.

“PATHWAYS AND PROGRAMMES MUST BE INDUSTRY LED, AND AGENCY ENABLED.”

**ANNIE ARANUI, EAST COAST REGIONAL COMMISSIONER,
MINISTRY FOR SOCIAL DEVELOPMENT**

The following case study highlights industry leadership and agency enablement in action.

CASE STUDY 1

T&G GLOBAL AND MSD – SEED PROGRAMME



SEED (Sustainable Employer Employee Development) is a joint initiative between T&G Global (starting at Apollo Apples which T&G Global acquired in 2014) and Ministry of Social Development that began in 2010. The programme is aimed at beneficiaries, youth, and sole parents with the aim of getting them into sustainable long-term employment (Ministry for Social Development, 2020). Strong leadership from Maurice Windle at T&G has seen the relationship and programme maintained for over 10 years with a huge number of success stories. MSD frequently share the stories of Maurice and T&G Global nationally to highlight the win-win benefits of the high levels of pastoral care in bringing people into the workforce.

The most recent success story was filling 8 of 15 new orchard-hand roles at T&G Global with people that had gone through the SEED programme. With the support of PGF funding, MSD and T&G Global have also been able to roll out an additional Emerging Leaders Programme with the focus on developing and empowering junior staff on orchard.

“THE TRAINING MODEL FOR T&G HAS CHANGED. OUR FOCUS IS ON TEACHING AND ENGAGEMENT, WE WILL WORK WITH ANYONE WITH A GOOD ATTITUDE AND PUT IN THE EFFORT TO INCREASE THE SPECIFIC TECHNICAL ABILITIES WE REQUIRE.”

MAURICE WINDLE, SUPPLY AND SERVICES MANAGER – EAST COAST, T&G GLOBAL

Maurice shares that T&G aim to individualise the experience, make everyone feel welcome, and ensure it is a positive working environment. T&G have worked closely with MSD to remove as many barriers to entry as possible – whether it be transport, medical, housing, fines, police history or a range of other things.

3.2 VALUES AND PERCEPTIONS

3.2.1 NEGATIVE PERCEPTIONS

As I drove from my home at Whirinaki to Wairoa along State Highway 2, the evidence was staring at me every few kilometres. Signage from the activist group 50 Shades of Green reads “keep farms for food, you can’t eat wood”, “keep farms for food, you can’t feed the hungry with trees” and “keep provinces for kiwis, people and birds, not wall to wall wood”. 50 Shades of Green was established in May 2019 to raise awareness of the threat to hill country farms and rural communities as the result of increasing afforestation, carbon speculation, and changes to government policy including the Emissions Trading Scheme (50 Shades of Green, 2020).

The Hawke’s Bay Regional Council recently commissioned Dr Willie Smith to survey farmers in Wairoa on the perceived threat on rural communities from increases in forestry. Afforestation is openly criticized by sheep and beef farmers with the perception it decreases employment, promotes depopulation, closing public facilities and is a major threat for rural communities (Kitchin, T., 2020).

KEY DEFINITIONS

Afforestation –

When new trees are planted in an area where there were no trees before, creating a new forest

Reforestation –

Process of planting trees in a forest that has been harvested or where the number of trees has been decreasing
(Drax, 2020)

When specifically inquiring into perceptions on forestry with interview participants, the responses varied significantly. For some it was highly contentious. For those involved in the forestry industry the response was considered. CEO of Hawke’s Bay Forestry Group, Keith Dolman was particularly quick to enquire whether I knew the difference between afforestation and reforestation and emphasised that this definition is critical. When probed around values on forestry most participants repeated the same phrase “**right tree, right place**”.

However, Craig Little, Mayor of Wairoa, strongly emphasised that Wairoa has a lot more trees compared to the rest of Hawke’s Bay and were the most at risk by

increasing afforestation. It is clear that forestry in Wairoa is extremely divisive and a number of participants spoke about conflicts as a result of “two sets of data” on employment and socio-economic impact. Corporates interviewed with forestry investments emphasised that the goal was to not create negative environmental or social outcomes but to try and facilitate the right land for the right use.

“THE SO-CALLED AVALANCHE OF GREEN – TREES IN THIS CASE – DOESN’T EXIST IN THIS REGION. THERE HAVE BEEN RELATIVELY MODEST LEVELS OF PLANTING BUT THERE IS A HUGE PERCEPTUAL CHANGE OF FORESTRY.”

KEITH DOLMAN, CEO, HAWKE’S BAY FORESTRY GROUP

PanPac's General Manager of Forestry, Tim Sandall, remarked that forestry in Wairoa is mostly mature so harvesting and building the supporting infrastructure are now on a continuum happening every year. This means that the seasonality risk of employment (every 30 years) is now removed as there are trees at maturity each year. Highly emotive language such as "[Afforestation] is scaring the hell out of this community" headlines numerous articles and media coverage (Hawke's Bay Today, 2020). This is in direct misalignment to the "right tree, right place" discourse which the majority of interview participants were aligned with.

"OUR OBJECTIVE IS TO FIND THE BEST LONG TERM SOCIAL, ENVIRONMENTAL, CULTURAL AND ECONOMIC OUTCOMES FOR NORTHERN HAWKES BAY...THE SOLUTION TO THIS IS COMPLICATED BUT ACHIEVABLE AND REQUIRES ALL STAKEHOLDERS TO WORK TOGETHER...ESPECIALLY FARMERS, FORESTERS AND REGULATORS".

TIM SANDALL, GENERAL MANAGER - FORESTS, PANPAC

Forestry is not the only land use that conjured up negative perceptions. There were similarly negative connotations with increases in horticulture. The perception is specifically based on RSEs versus local employment with interview participants citing that there was a perception (and reality) that often locals were the first to be laid off as RSEs had contract commitments. Similarly, the level of pastoral care provided to RSEs versus locals was cited as a key negative perception especially with RSEs provided more wrap around support compared to locals who tended to need to 'fend for themselves' – this included wrap around services such as transport, housing, and other barriers to work.

3.2.2 CONNECTION TO THE LAND

Across all interview participants the personal connection to the land was strong. Whether that be through family, upbringing, environment, or role. The connection to the specific land use or farming model was also strong for most having worked in their specific industry whether that be horticulture, forestry or sheep and beef for often multiple generations. The steadfast hold of values to the farming model highlights the 'farming identity' and 'way of life' which creates potential negative perceptions or caution around changing land use.

Overall, the majority of participants agreed that farmers are highly adaptable especially when considering the increasing load through policy and regulation. Interviews with Steve Wyn Harris and Simon White both highlighted their intrinsic motivations for diversifying.

“DIVERSIFICATION IS ABOUT A MINDSET. I’M NATURALLY CURIOUS SO ALWAYS LOOKING FOR OTHER OPPORTUNITIES... WHAT’S NEXT – MAYBE SHEEP MILKING, HOPS... I’M USUALLY LOOKING FOR SOMETHING NICHE”.

**SIMON WHITE, MIXED CROPPING, SHEEP & BEEF FARMER,
ŌTANE, CENTRAL HAWKE’S BAY**

A challenge raised by several interviewees was the increase in corporate farming organizations. The result of this was an employee disconnect and lack of accountability to the land and the associated outcomes. A second challenge raised by a number of participants was the disconnection to the land by each and every generation that follows. Especially considering the increasing urbanisation, several participants commented on the importance of connecting those from out of the sector to the sector.

“THE KEY IS ALLOWING PEOPLE TO FIND PRIMARY INDUSTRY THROUGH WHATEVER CONNECTION THEY HAVE – WHATEVER IT IS... AND MY ROLE IS TO CREATE THE CONNECTION AND SHOW PEOPLE WHAT IS AVAILABLE.”

**ERIN SIMPSON, CAPABILITY DEVELOPMENT MANAGER, NEW
ZEALAND APPLES AND PEARS**

How the connection is made to the agri-food and fibre sector will take an integrated approach. There are already micro-examples such as Tātau Tātau o Te Wairoa working with Nuhaka Primary School on their next horticulture venture to expose children and their families to a completely new industry in Wairoa.

3.2.3 THE NARRATIVE

In 2019, the Primary Sector Council released the Fit for a Better World vision and campaign including the introduction of the Māori concept – Taiao (Fit for a Better World, 2020). The concept of taiao is “a deep relationship of respect and reciprocity with the natural world. The health of the climate land water and living systems comes first. And when nature thrives so do our families, communities, and businesses” (Fit for a Better World, 2020). The environmental narrative regarding guardianship of our environment was strong throughout all interviewees.

The integration of other Māori principles including Manaakitanga and Kaitiakitanga, was evident across both conversations with iwi and particularly with corporates who are adopting the language and sentiment into their sustainability philosophies.

When speaking with Dr Peter Klassen, GM Horticulture for Craigmore, he emphasised the integration of kaitiaki throughout the Craigmore business and had numerous examples of how they lived this out day to day in investment decisions for both positive social and environmental outcomes.

“THE INCOME PER HECTARE IS SO MUCH HIGHER THAN THE ARABLE THAT IT WAS IN – SO WE ARE MORE FINANCIALLY CAPABLE TO INVEST IN AND HAVE A SOCIAL AND ENVIRONMENTAL OBLIGATION TO DO THE RIGHT THING.”

DR PETER KLASSEN, GM HORTICULTURE, CRAIGMORE

An interesting perspective raised by Alex Walker, Mayor of Central Hawke's Bay District Council, was the concept of social license. Previously the economic return of land use such as dairy provided a social license which is why we saw an upswing in the conversion to dairy. But as the narrative changes to the environmental impact of dairy for example the social license shifts. Similar to this, the environmental benefits narrative including carbon credits, and reduced emissions provided social license for the upswing in forestry. However, we are now seeing the social narrative come through strongly which is removing some of the social license because of the negative connotations and emotive language associated with the narrative.

What is evident from the interviews, is that the discourse around land use change often first focuses on the economic and environmental return especially when comparing forestry to alternatives. The challenge for all of us will be to ensure that the social outcomes narrative comes through just as strongly to ensure people are taken on the journey and have a positive connection with the land.

The following case study highlights a perception shift to maximise the use of the land resulting in positive social, environmental, and economic outcomes.

CASE STUDY 2

STEVE WYN HARRIS – SHEEP, BEEF, FORESTRY & COMMUNICTAION



Steve Wyn-Harris is a local legend. He has a combined operation of sheep, beef, sheep genetics / breeding, and farm forestry on 360 hectares just out of Waipukurau, Central Hawke's Bay. Steve is a talented communicator and has written columns in The Farmers Weekly and hosted his twice-weekly radio show, The Cockies Hour on Central FM for over 20 years (Rural Delivery, 2020).

Steve and I had a conversation around the perception of land use diversification and perceptions of forestry. Steve put around 15% of his farm into forestry over 30 years ago and emphasised that the stocking rate didn't drop and there were numerous other shade and shelter benefits that the forestry offered.

“I STARTED PLANTING PINE TREES 35 YEARS AGO – IT WAS AND STILL IS A NO BRAINER. WE NETTED \$43,000 PER HECTARE ON NINE HECTARES. IT’S A COMPELLING RETURN ON INVESTMENT.”

STEVE WYN-HARRIS, FARMER

Steve put the worst land on the farm into forestry which provided two additional income streams – carbon and harvest. Steve believes that the land diversification is certainly a better allocation of resources, especially because you now only fertilise land which is productive.

“THERE IS A PRAGMATISM REQUIRED WITH ANY CHANGE... IF SOME FARM OWNERS HAD CONSIDERED THIS 30 YEARS AGO, THEY MIGHT NOT BE SELLING NOW.”

3.3 MĀORI COMMUNITIES & INVESTMENT

3.3.1 PRIOTISATION OF SOCIAL AND ENVIRONMENTAL OUTCOMES

When specifically inquiring into the Māori perspective of changing land use, it was clear that the view was more holistic and social outcomes driven.

“PAPATUANUKU IS AT THE CENTRE OF THE MĀORI WORLD VIEW – AND THE SOCIAL OUTCOMES ARE LEVERED FROM THE CONNECTION TO THE LAND.

LEWIS RAPATU, GENERAL MANAGER, TĀTAU TĀTAU O TE WAIROA

Multiple interview participants highlighted the strength in Māori agribusiness being able to make the connection between the physiological and ecological assets with a clear purpose – “what does this mean for our people”. The increase in Māori land ownership is therefore likely to drive wider positive social outcomes for rural communities. The Māori Agribusiness Extension programme has received further funding to address the economic and social impacts of COVID-19 as well as realise the potential of the Māori economy (Fit for a Better World, 2020). The purpose of the programme is to increase productivity and sustainability of whenua Māori as well as lift Māori participation in the sector and add value to unproductive land (Fit for a Better World, 2020).

A story that has stood out for me is Tom Keefe and the Ngāti Pāhauwera investment which is Case Study 3. The Ngāti Pāhauwera horticultural story started back in 2015 when Tom did his Kellogg Rural Leaders project on “*The social impact of converting traditional agricultural land into horticultural land within my Iwi*”. But Tom’s story starts long before that, working in horticulture as a school leaver – completely by chance – and then having opportunities and a successful career throughout the full supply chain for a variety of leading companies including Kono.

“[KONO] OPENED MY EYES TO HORTICULTURE – AS A BUSINESS PROSPECT FOR MĀORI, FOR IWI, FOR INDIGENOUS PEOPLE”.

TOM KEEFE, CHAIRMAN, NGĀTI PĀHAUWERA COMMERCIAL DEVELOPMENT

Kono, an associated business of Wakatū Incorporation, was raised by multiple interviewees associated with the horticultural industry as a trailblazer in land use diversification and future

thinking. Kono lives by a 500-year plan and tikanga (way of doing things) highlights the intergenerational vision that drives cultural, social, environmental and economic outcomes (Kono, 2020). Tom's example with Kono highlights the learning opportunity to look and learn out of the region and share the success story.

3.3.2 TRADITION VERSUS PROGRESSION

The Māori perspective emphasised the connection to the land rather than specifically the land use.

“ALTHOUGH HISTORICALLY MĀORI LAND HAS BEEN IN SHEEP AND BEEF, FOR MĀORI, THE CONNECTION AND AFFINITY IS WITH THE WHENUA RATHER THAN THE USE OF IT.

LEWIS RAPATU, GENERAL MANAGER, TĀTAU TĀTAU O TE WAIROA

The resistance to change is therefore associated with the risk and unknown.

“WE ARE SEEING THAT YOUNGER GENERATIONS ARE TENDING TO BE MORE INNOVATIVE AND RECEPTIVE TO CHANGING LAND USE; BUT THERE IS AN OVERALL RESISTANCE TO CHANGE – THE RISK OF THE BEING THE FIRST MOVER UNTIL IT IS PROVEN.”

LEON SYMES, CHAIRMAN, TĀTAU TĀTAU O TE WAIROA

Seeing and sharing success is critical to overcoming some of the conservatism and resistance to change. Tātau Tātau o Te Wairoa is actively connecting land owners in the Wairoa region to land owners and corporates in the Heretaunga Plains to show what success looks like and mitigate some of the first mover concerns.

3.3.3 PARTNERSHIP

Interview participants highlighted the inherent mistrust between Māori and Pakeha as a result of colonisation and the history of Māori in New Zealand. As Post Settlement Governance

Entities are established to return land to iwi it is critical that the right partnerships based on values are established. Value alignment was emphasised as essential to the success of Māori and Pakeha agribusiness partnerships.

The challenge lies in the ability to make value alignment contractual – to ensure that social, environmental outcomes are included in the bottom line. The “Horticulture Hub” project highlights effective engagement in the Wairoa region between local iwi, local and regional government, and horticultural corporates with the expertise and training capability.

“HORTICULTURE IN WAIROA IS A TOTAL AND ABSOLUTE GAME CHANGER – IF WE CAN PULL THIS OFF IT WILL CHANGE THE COMMUNITY FOREVER”.

REX GRAHAM, CHAIRMAN, HAWKE’S BAY REGIONAL COUNCIL

In June 2020, Anthony Cole prepared a social and cultural assessment of the sub-catchment areas for the Hawke’s Bay Regional Council. This is a great example of the Hawke’s Bay Regional Council actively engaging to maximise the positive social outcomes inclusive of a Māori world view. However, the report was confronting in a number of ways, highlighting the serious diminishment “to the brink of extinction” of the Māori economy in Hawke’s Bay (Cole, 2020). This report provided a call to arms for Māori cultural survival stating that economic growth in the region is at the expense of wellbeing outcomes for Whānau Māori.

The redress of years of inequality is happening now and there are significant opportunities for Māori-agribusiness to deliver increased wellbeing and social outcomes inherent in the tikanga of the culture.

The following case study highlights a change in land use with the core objective to maximise the positive social outcome for the people.

CASE STUDY 3

NGĀTI PĀHAUWERA – HORTICULTURAL INVESTMENT



Ngāti Pāhauwera Commercial Development Ltd manages key commercial assets including:

1. Shares and Investments
2. Whenua (3,500 ha of farm land)
3. Forest Rental (15,484 hectares of pine forest – leased to PanPac)
4. Other Opportunities

(Ngāti Pahuawera Development Trust, 2020).

Ngāti Pāhauwera Treaty Settlement has the principle aim to return Ngāti Pāhauwera lands so they can provide for the future generations.

In March 2020, Ngāti Pāhauwera purchased 132 hectares near Tangoio (north of Napier) – 72 hectares was already planted is in mature orange trees as well as 40 hectares of bare land with the intention to plant apple trees. A key driver of the land purchase was for the Trust to be in a position to start offering employment opportunities to Ngāti Pāhauwera people the majority of whom are now based in Napier and Hastings.

In July 2020, the first apple trees were planted. Tom Keefe's background in horticulture has provided a steady-hand in diversifying the commercial portfolio into horticulture. The hope is that this orchard will be used as a showcase for future horticultural developments in the Wairoa region.

“[WORKING FOR] KONO HELPED ME UNDERSTAND WHAT I AM DOING NOW – TRYING TO LEAD MY PEOPLE DOWN A PATH OF SELF-SUFFICIENCY, THE CLIMATE AND THE LAND AND THE WATER – UTILISE THE ASSET WITHOUT THE DETRIMENT TO THE ENVIRONMENT OR PEOPLE.”

TOM KEEFE, CHAIRMAN NGĀTI PĀHAUWERA COMMERICAL DEVELOPMENT

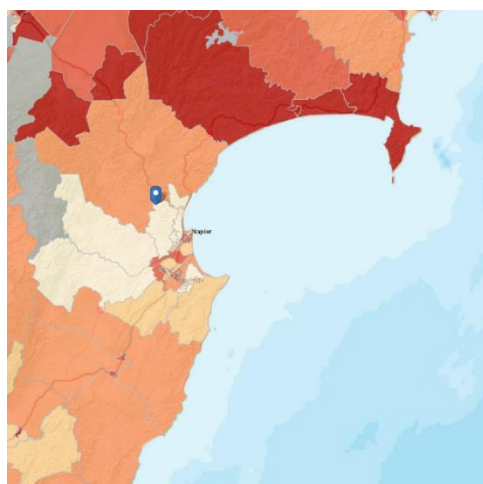
3.4 OTHER MACRO FACTORS

There were a number of other factors that were raised as being key contributors to social outcomes which need to be considered as part of the changing land use discussion. These include:

AGEING POPULATION	<ul style="list-style-type: none"> • The Hawke's Bay population tends to be older than the national average. By 2051, it is expected that 1 in every 4 New Zealanders will be over 65 (Statistics NZ, 2020).
ANTI-SOCIAL BEHVAIOURS	<ul style="list-style-type: none"> • The number of patched gang members have increased by around 30-35% in the last 2-3 years (Sharpe, M, 2020) • Concern around drugs and alochol were raised by all participants
SOCIO-ECONOMIC DEPREVATION	<ul style="list-style-type: none"> • Hawke's Bay is overall a low income society. The minimum wage is \$17.70 compared to a living wage of \$21.15 (Living Wage, 2020).
TECHNOLOGY	<ul style="list-style-type: none"> • Advancement of agritechnology (Ministry for Primary Industries, 2020). • Technology reducing low skill and unsafe roles
COVID-19	<ul style="list-style-type: none"> • Reverse urbanisation • Regional isolation due to pandemic

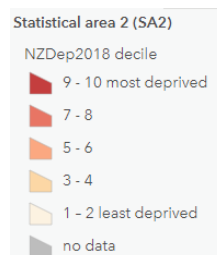
“I LIKE TO DESCRIBE CURRENT AUTOMATION IN HORTICULTURE LIKE WE ARE CARRYING THE MOTOROLA PHONE AROUND ... WHILST WE ARE EAGERLY AWAITING THE IPHONE.”

MORGAN ROGERS, HEAD OF INNOVATION AND TECHNICAL T&G.



Deprivation Index

The heat map to the left shows deprivation in Hawke's Bay. The map highlights that the Wairoa district is the most deprived followed by coastal areas in Central Hawke's Bay.



(Environmental Health Indicators New Zealand, 2020)

4. SO WHAT?



The case studies highlighted in this report show examples of really effective things going on in the region to maximise positive social outcomes and/or address some of the social challenges associated with changing land use.

However, there is still a gap.

4.1 THE GAP

1. **Discourse** – the discourse creates the social license no matter what the land use. There is a gap in reflecting all realities of investment, both positive and negative – economic, social and environmental outcomes need to be articulated.
2. **Disconnect pan sector** – labour strategy is a significant risk to the whole sector and COVID has accelerated the rate at which people have had to work together but still without a full pan sector approach.
3. **Disconnect to the land** – one of the key risks highlighted is the next generation becoming more and more disconnected to the land – the sooner we start, the sooner we can reconnect.
4. **Data & Modelling** – there are numerous data sets but I was unable to come across a model that predicted the best land use to maximise the triple bottom line.

4.2 LIMITATIONS

This research is limited by its qualitative nature. I have endeavoured to provide supporting data where possible to help quantify where relevant.

The research and report also generalises perspectives across the total region and may not be representative of all industry participants' views. The variation within the region is relatively significant in terms of land use change and a farmer viewpoint in Central Hawke's Bay is unlikely to be representative of a farmer viewpoint from Wairoa.

Although there are inherent limitations with qualitative research, the body of work still provides a "grass-roots" base to build upon for further development in multiple areas.

4.3 RECOMMENDATIONS

The below four recommendations could be adopted immediately or provide a platform for further research:

1. Change the Discourse
2. Pan Sector Collaboration
3. Integrated Educational Approach
4. Optimisation Modelling of Land Use for Social, Environmental and Economic Outcomes

4.3.1 CHANGE THE DISCOURSE

There has been significant progress in the adoption of Māori values in both Māori and non-Māori agribusiness. This is significant progress in creating value alignment and a consistent discourse; however, the opportunity is to really embed these values personally, organisationally and as a wider sector community to ensure it is not just “lip-service.”

We each have a personal responsibility to ensure investment decisions are made in line maximising social and environmental outcomes which are at the heart of the concepts of taiao, Kaitiakitanga and Manaakitanga. Changing the narrative is changing how we communicate the “what”, “how” and most importantly the “why”. We should approach land use change discussions with curiosity and interest and support to shape the narrative. We can do this by asking questions about what investment decisions mean for people, communities and the environment.

A keyway in which this can be done is share stories of successful social and environmental outcomes, no matter how small or insignificant you may perceive them to be. A story will support to personalise the message and create a connection.

TAIAO	• (noun) world, Earth, natural world, environment, nature, country.
KAITIAKITANGA	• (noun) guardianship, stewardship, trusteeship, trustee
MANAAKITANGA	• (noun) hospitality, kindness, generosity, support - the process of showing respect, generosity and care for others.

(Māori Dictionary, 2020).

4.3.2 PAN-SECTOR COLLABORATION

Something that really interested me in conducting this research was the number of hugely passionate, talented and motivated individuals in our region. Maurice Windle, Supply and Services Manager – East Coast for T&G Global highlighted this for me when he said it takes special people to make a change to the way things have always be done.



The second recommendation is to utilise existing forums to remove the insularity of labour and skills discussions. We can have the biggest impact when we connect with other like-minded people in our fields and even more broadly. There are a number of existing forums through the Regional and Local Councils where industry collaboration is starting to build. The Regional Labour Skills Group needs to look pan-sector at the seasonality of peak labour requirements and help to facilitate a holistic approach in sustainable employment and entry pathways.

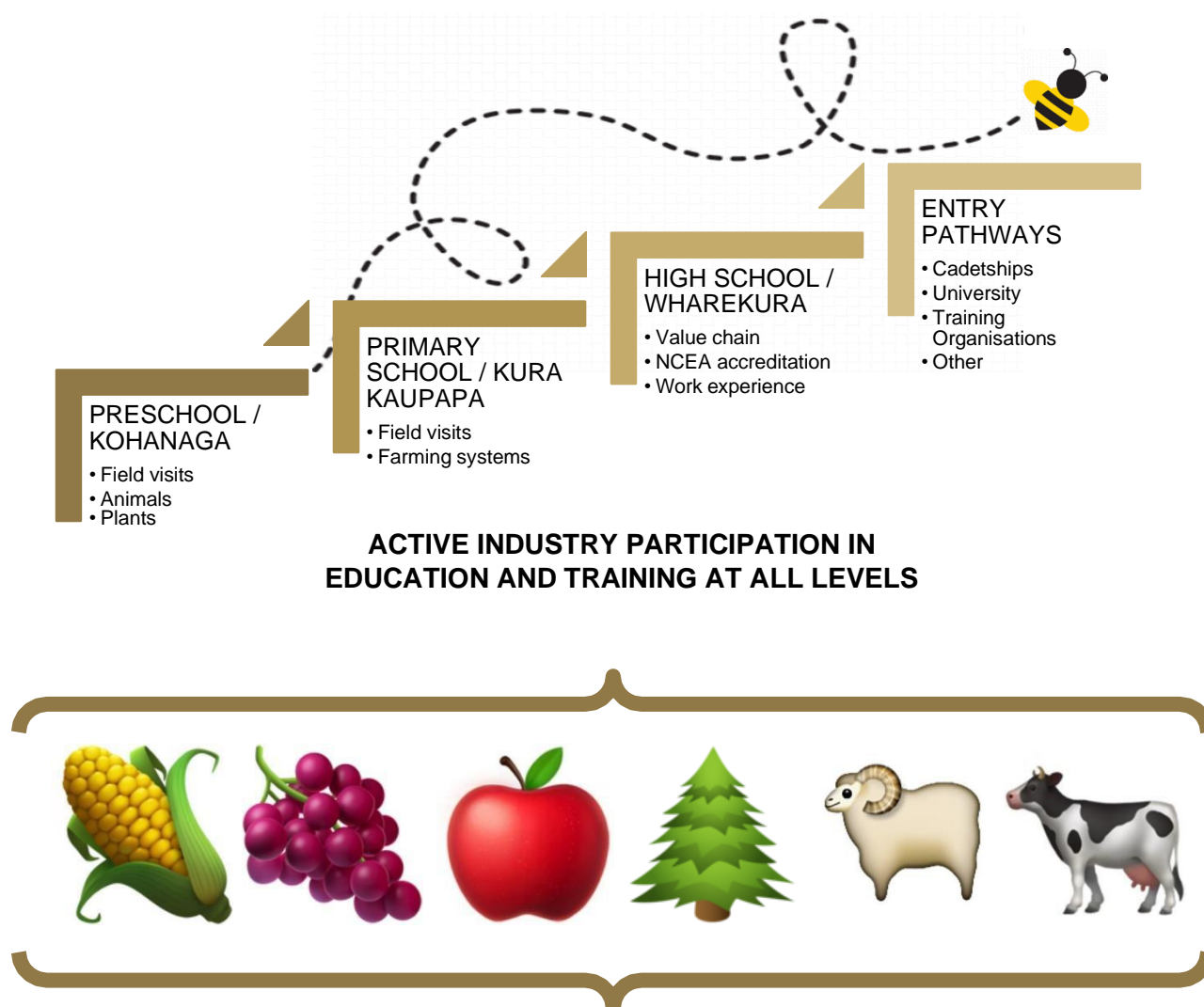
COVID has accelerated the rate at which these discussions are happening, but we need to look further forward at the land use projections rather than focusing on labour shortages for the next season or harvest. This year we have seen that we may not always be able to rely on an international labour force so creating local employment options in a sustainable and socially beneficial way is critical. This will require a change in how we think about local employment – removing barriers to entry and providing more pastoral care and support will be critical in creating positive social outcomes for individuals and communities.

4.3.3 INTEGRATED EDUCATIONAL APPROACH

The third recommendation is for an integrated educational approach between the sector and the Ministry of Education. This has the potential to create a deeper understanding and connection the sector as well as a potential secondary benefit of understanding that there are a number of different pathways and opportunities within the sector.

The recommendation is to have pan-sector collaboration with educational institutions from pre-school / kohanga right through to primary, secondary, and potentially tertiary education. There is a significant opportunity to develop robust educational models to minimise the disconnect to food production and take an active approach in attracting people to the sector.

The below model is a graphic representation of potential building blocks for this integrated educational approach.



4.3.4 OPTIMISATION MODELLING OF LAND USE BASED ON SOCIAL, ENVIRONMENTAL AND ECONOMIC OUTCOMES

Each and every land owner has a choice. However, the Hawke's Bay Regional Council and farm advisors have the opportunity to maximise social outcomes. The fourth recommendation is for the development of a holistic, integrated land use optimisation model based on social, environmental and economic parameters. If a more holistic data set of land use and associated social, environmental, and economic outcomes was developed this could be provided to farmers and corporate investors to facilitate conversation.

Objective – to solve and recommend land use for the best social, economic, environmental outcome. This would need to be down to a relatively small land lot (i.e. 5 hectares) to also encourage and facilitate conversation regarding land use diversification in an individual farm.

How – The model would “solve” for the “best case” on minimum (and potentially maximum) parameters for social, economic, and environmental outcomes based on key inputs.

Suggested inputs for model (example only):

Land	Social	Environmental	Economic
Land use capability LUC	Minimum students at local school	Impact on fresh water quality	Market prices
Land ownership	Living wage – target median income	Erosion susceptibility	Local spend per hectare
Existing land use	Land of cultural significance	Climate	ROI
Alternative land uses	Minimum population to township for public facilities i.e. shop, pub, cafe	Environmental Regulation	Costs per hectare
Fixed or committed land use	Employment (FTE) per hectare	Macro Policy Impacts	Return per hectare
	Housing availability		
	Population age		



Output – interactive map of the region with the “best case” land use. When land use changes or is “committed” long term such as a 30-year forestry investment it could be fixed in the model to ensure that the model is not purely theoretical.

Who – there are a number of companies working in data optimisation in New Zealand that could offer this development, but the input parameters and support for regional specific data sets would require a collaborative effort coordinated by someone like the Regional Council.

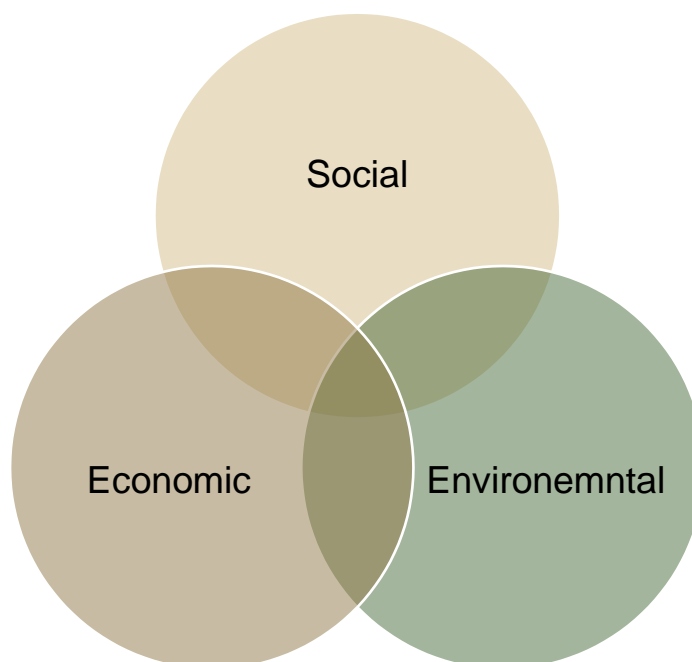
5. CONCLUSION



The social impact of changing land use in Hawke's Bay is an interesting topic met with a variety of responses and interest levels. The geographic and demographic characteristics of the Hawke's Bay region compounded with multiple macro level factors at a national and international level means there is no one answer or simple solution to maximise social outcomes.

The three key findings from the research included:

1. The requirement of land owners, investors and local government to consider the employment opportunities and pathways to employment dependent on land use
2. The inherent value set and perceptions of individuals can be challenging but the narrative is critical to develop social licence
3. Māori values provide the holistic viewpoint to deliver on social, environmental, and economic outcomes and with increasing Post Settlement Governance Entities we will see a more holistic approach to the land use discussion.



Four recommendations were provided as to a path forward to maximise social outcomes for the Hawke's Bay region:

1. **Change the Discourse** – we each have the opportunity, personally and professionally, to share our stories of the connection to the land and the prominent value sets that are guiding decisions and outcomes.
2. **Pan Sector Collaboration** – now more than ever is the opportunity to look outside of the insular industry bubble and connect with like-minded individuals pan-sector to create sustainable employment options in the region.
3. **Integrated Educational Approach** – developing a connection is critical to supporting the narrative and social license so an integrated educational approach would foster this from the ground up.
4. **Optimisation Modelling of Land Use for Social, Environmental and Economic Outcomes** – modelling has tended to focus on economic and environmental factors but including more than just full-time employment figures will provide a base case for land use discussion that is more inclusive and people centric.

WHAT NEXT?

I am extremely proud to say that Hawke's Bay is my home, and no matter what role or capacity I have in the region, I will continue to seize the opportunity to facilitate this discussion and further outcomes for our people.



**HE AHA TE MEA NUI RAWA?
HE TANGATA, HE TANGATA, HE TANGATA.**

**WHAT IS THE GREATEST THING?
IT IS PEOPLE, PEOPLE, PEOPLE.**



APPENDICES

Appendix 1

ANNIE ARANUI – EAST COAST REGIONAL COMMISSIONER – MINISTRY OF SOCIAL DEVELOPMENT

Karen Bartlett – Regional Labour Market Manager – Ministry of Social Development

Monday 19 October, 1pm

Theme	Point 1	Point 2	Point 3
Background	Role objectives are to support social outcomes alongside economic ones.	Our collective impact is to grow business and industries while also growing talent in Hawke's Bay.	Understanding skills and labour requirements, and ensuring we are servicing the right raining.
Land Use Change in Hawke's Bay	With increased plantings there is an increased perception for reliance on RSEs both in horticulture and forestry. COVID has shown us that you can't always rely on an international labor force. Focus is on developing local people	We need to look at land use and social implications together.	
Employment and Training	Need a focus on ensuring there is a path to sustainable employment – the entry level options of thinning / harvest/ planting are there and then it is about progression.		
Māori communities and investment	There is no more land in this country. Post Treaty Settlements- Māori ownership of land is going to drive wider social outcomes for our communities as Māori agribusiness focus on the question "What does this mean for our people".	Māori business good at making the connection between the assets, "what's my purpose" and tying into ecological land management.	

Values and Perceptions	<p>The environmental lense and protection of the environment is really strong.</p>	<p>RSEs are highly productive mainly from years of experience which then makes employers bench mark local employees against them some of whom this is their season – picking or planting.</p> <p>RSEs also receive more a wrap around from corporates than locals – i.e. they think about full pastoral care including accommodation, transport and food – for locals (in most instances) this isn't considered.</p> <p>Great example in Maraenui where T&G provided locals transport to work. Talking to locals "T&G picking up people we know".</p>	<p>Horticulture in general has a negative rap in the region. Often locals are the first to be laid off as there are longer term contracts with RSEs – that is the experience and story of 100s of people who have worked in seasonal roles in Hawke's Bay .A lot of urban people who don't have the connection to the land go and pick/thin/plant and then get laid off – they then don't see the value added roles/</p>
Role of corporate	<p>T&G has a really amazing reputation with MSD – particularly the work through Maurice Windle – his passion, personal care and desire to do what's right.</p> <p>Partnerships with the people we are servicing like T&G. Example – 15 people offered full time orchard hand positions with T&G – 8 of those had gone through the Seed Programme with MSD.</p>	<p>Some corporates are future focused, others are just worried about the now and the short term issue of getting off the crop in front of them.</p> <p>Culture is everything within these corporates – everyone has a choice as to who to work for. T&G is an employer of choice for people who work with MSD.</p>	<p>Large corporates need to put a focus on their terms and conditions for minimum standards for employees – not enough focus on this area. Have seen examples of forest owners not held to account for contracting labour companies at the very lowest rate possible and then the flow down impact of that to employees who are paid the very lowest rates. It's bare minimums to cover costs which mean contractors can't invest in people.</p>
Role of government	<p>MBIE - The Regional Skills Leadership Group is identifying growth industries in the region to understand the pipeline of demand. This is still in it's infancy.</p>		
Role of industry bodies	<p>NZAP has worked closely with the Pacific Island community. Pacific Island culture is not to put themselves forward or highlight accomplishments which is a challenge for progression so NZAP has helped design pathways such as apprenticeships and training for leadership roles.</p>	<p>EIT has been incredibly responsive to providing training – examples in Gisborne where they have provided full wrap around thinking about weather and timing using rain days as classroom days. Training has been both flexible and targeted to needs of region.</p> <p>EIT also very responsive for pre-employment training.</p>	<p>Land based training. Have provided more generic training and pastoral care. GrowSafe is another flexible alternative that has been used. Turanga Araroa – provide pastoral care support and best practice across industries.</p>
Collaboration pan-sector approach to region	<p>MSD has previously tried to encourage the conversation between horticulture and meat processing – there are some synergies in terms of work especially in post-harvest but also overlap – the business in the discussions haven't perceived a great gain from the collaboration so it hasn't progressed. Trying to connect the seasonality can be challenging and also the type of work and how far people would be required to travel – we have looked at the</p>	<p>Forestry and horticulture – there were frustrations with RSEs stranded in NZ and forestry had the option of going planting. Horticulture showed some enthusiasm for this but was unable to get traction on both sides.</p>	<p>Kiwifruit Partnership with T&G. Nga Tokorangi – effective utilization of stranded RSEs once they had finished harvest to go flower plucking and then return 6 weeks later for thinning season.</p>

	<p>wine industry and squash weeding – conversations are still ongoing.</p> <p>Employers collaboration for these opportunities is key – need to get collective agreement within the industry to find sustainable employment opportunities.</p>		
Examples external to region tat we could learn from	To deal with value and perception issues we need to offer alternative stories. In Gisborne there is a positive story in the paper every week about “shovel ready projects” and local employment.	Nelson initiative – growing leaders – social outcomes – showing what best practice looks like across industries and sectors.	
Other social factors that are contributing	The challenge for the future will be having a labour force that we can access for primary sector - ageing population.	“People have a choice”	<p>Living wage. It has actually become more challenging to learn even minimum wage in horticulture being paid on contract (and the comparison to RSE workers) especially when it is .</p> <p>Employer and employee then both lose heart.</p>
Other factors	Technology – robotic harvesting. This is likely to deliver increase social outcomes as there is more social contact rather than being isolated down a row by yourself.	Organizational response – we are still too reliant on a few individuals within organizations – but there is an opportunity to share best practice in workforce entry, pathways, and pastoral care.	Drugs and alcohol.
	It's about offering people a better choice – offering outcomes. MSD has worked with high schools in low socio-economic areas such as Te Aute and Flaxmere – connecting with vulnerable people to provide an alternative pathway – especially focusing on Maori and Pasific students – especially supporting pathways into STEM. As soon as kids are streamed in schools there becomes less opportunities for those in “lower level” streams.	Macro level – how to grow Hawke's Bay – need a focus on both education and industry	<p>Seasonality of work deeply affects people's ability to advance – locals have an expectation of in and out – we are a low-income society in HB.</p> <p>We need to move from a now strategy to a future focused strategy – think “and what next?” Future proofing – what would that look like.</p> <p>Must be industry led and agency enabled. Similarly it must be regionally led and nationally enabled. By industry, for industry.</p> <p>Industry have the skills and must be willing to share – add value.</p> <p>Hastings Employment and Training – attracting great things grow here. Matariki.</p>

Appendix 2

KEITH DOLMAN – CEO HAWKE'S BAY FORESTRY GROUP

Tuesday 20 October, 2pm

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	Hawke's Bay originally – Waikaremoana / Tuai Wairoa College Forestry Degree Strong desire to work and travel – so engineered experiences to get there.	NZ Forest Service (Govt entity 1976 – 1982. Volunteered to work in Kaingaroa Forest. Organizational development in large corporate. Worked in Gisborne and East Coast – was contentious at the time - analysed land to minimize sedimentation and erosion of the land.	NZ Aid Team lead in Philippines – developed tree plantation. Returned to Wallington – 1987 Rogernomics reforms – forestry dissolved and split overnight – objective to go from public to private ownership and focus on conservation as well as commercial. Ministry of Forestry – Papa New Guinea deployment. 3 long term projects in Africa 3 years in Solomon Islands.
Land Use Change in Hawke's Bay	One Billion Trees Program “So-called avalanche of green – trees in this case – doesn't exist in this region.” Important for people to understand reforestation versus afforestation. There have been relatively modest levels of planting but there is a huge perceptual change of forestry.	The ROI is a clear driver for the switch to forestry. The concept of Carbon Farming is causing more angst – most corporates who plant are 100% committed to harvesting their trees. Without an economic generator social welfare and social outcomes fail.	There is a huge opportunity for farmers with 10% unproductive land to diversify into forestry. “Every farmer has a choice”
Employment and Training	There is a challenge around perceptions of forestry careers – not just being on the need for a shovel. Technology has changed the way we do many things including measurement.	Local employment is always the preference. Forestry companies are working together “Bringing in lights so people can make their own judgement”.	Have developed a relationship with the Ministry of Education – Big Day Out – exposing students to different vocational training in forestry. Providing a pathway through high schools in Hawke's Bay. Have a permanent kiosk at Napier Boys High School – an interface to attract talent as well as an opportunity for students to learn more about forestry. INZNAE bus – high tech bus. Collaboration between a number of parties including defense force and forestry – targeted at lower decile schools. Only go where we are wanted – really plays into the values and perceptions of individuals such as school principals.

Theme	Point 1	Point 2	Point 3
Māori communities and investment	Te Uru Rakau – 8 scholarships nationally specifically for Māori and woman to take up pathways in forestry.		
Values and Perceptions	Perception that there are two sets of data on employment statistics of forestry versus other land uses. Not aware that any forestry organization has ever commissioned research into this area – mainly other bodies against forestry. MPI / PWC Study	Recently appointed a new coordinator for the “Wood is good” programme – building up momentum. Forestry who work in forestry tend to have a rural background.	There is a great deal of angst regarding forestry especially with groups like 50 Shades of Green – depopulation of rural communities is always a concern.
Role of government	The government is in the process of effecting legislation to change how carbon credits are distributed to mitigate large scale carbon farming.	Recently have been working with the regional council to get an assembly of councillors and senior council staff put into forests so they are more informed and involved in what is going on. We want an onsite discussion with councillors.	
Role of industry bodies	CEO of Hawke's Bay Forestry Group – 1-2 days per week. Representation of 11 members – largest corporate commercial plantation – does not represent farm foresters or saw mills Forest Owners Association – national level interests and representation.	EIT and Primary ITO – very effective. Make sure there is a forestry presence at every expo for employment.	
Collaboration pan-sector approach to region	In Hawke's Bay haven't been involved in any pan sector conversations.		
Examples external to region that we could learn from	Eastlands Wood Council – equivalent of Hawke's Bay Forestry Group have been very effective at community engagement.		
Other social factors that are contributing	There has been a global tendency of drift towards cities.	Safety first.	Gangs / drugs / alcohol/ hopelessness / welfare state / dignity
Other factors	Technology – forestry has become increasingly high - tech		Living wage – forestry pays well

Appendix 3

REX GRAHAM – CHAIRMAN, HAWKE'S BAY REGIONAL COUNCIL

Friday 7 August, 1pm

Theme	Point 1	Point 2	Point 3
Land Use Change in Hawke's Bay	Wairoa afforestation	Dairy farms in Central Hawke's Bay that shouldn't be there – what can we as a council do about that? Buy them out?	Increase in horticulture
Employment and Training	How do you attract the right people back to the region?	Learning and technical transfer is a challenge	
Māori communities and investment	Vision of iwi in Wairoa to manage a full horticultural supply chain from growing to sales - Regional Council has actively been working with Tatau Tatau o Te Wairoa and Ngāti Pahauwera	Focus is more holistic on employment and creating social outcomes for the Māori community	
Values and Perceptions	"Horticulture in Wairoa is a total and absolute game change – if we can pull this off it will change the community forever".		
Government lens	Council has specifically employed a Recovery Manager focus on COVID related issues		
Other social factors	Drugs and gages	Deprivation	Changed behaviors as a result of COVID – wanting to stay local;
Other factors	Water – Taniwha Dam Project	Three Waters	

Appendix 4

TOM KEEFE – CHAIRMAN OF NGĀTI PAHAUWERA COMMERCIAL DEVELOPMENT

Friday 11 September, 10am

Theme	Point 1	Point 2	Point 3
Background	<p>In horticulture since leaving school – orchards, brief apprenticeship in engineering.</p> <p>First horticultural boss + mentor – Van Howard – biggest influencer to decide to stay with horticulture as a career.</p> <p>“I push biked past a sign that said pickers wanted, start in January – yes I’ll go pick for a season, and stayed with him for 10 years”.</p> <p>Vaugh Redshaw – another mentor</p>	<p>Worked for Rex Graham – Countdown Supply Manger – stone fruit, IP varieties.</p> <p>Appreciation for corporate side</p> <p>Trade job and role with Delica – export Asia gave international exposure.</p>	<p>Wakatu Incoportation in Nelson – “That opened my eye to horticulture as a business prospect for Māori, for iwi, for indigenous people”.</p> <p>3 years there – corporate – Described as a corporate board with Māori values</p> <p>“Helped me understand what I am doing now - trying to lead my people down a path of self-sufficiency, the climate and the land and the water – utilize the asset without the detriment to the environment or people.”</p> <p>Kellogg Leaders started while working for Kono. Needed to move home to be closer to iwi – Ngāti Pahauwera Development Trust</p>
Land Use Change in Hawke's Bay	<p>Hawke's Bay will cope with the change of land use. But If we continue with the trajectory of forestry in Wairoa it will kill Wairoa as a township.</p> <p>The meat-works is the backbone of the Wairoa community.</p> <p>Trying to put some horticulture – better utilization of the land – more international spotlight onto Wairoa through international visitors.</p> <p>Want to emulate Heretaunga model.</p>	<p>Forestry was done as it was an easy sell – private owner – viable option.</p>	
Employment and Training	<p>Need to buy in expertise at first to teach our people – has been reluctance in the past.</p> <p>“We have land, passion, need and desire – let's bring in people to tell us how to do it and how to do it properly”</p>		
Māori communities and investment	<p>Māori agribusiness – inherent mistrust – colonization. European agribusiness and Māori agribusiness can only become closer – we just need like-minded.</p>	<p>Economic return not the only focus – more of a social focus. When we say we want to do horticulture with iwi groups – the question about how much money is not on the table for quite some time.</p> <p>“First we ask, what will this bring to our people? Then we start delving into EBITDA.”</p>	<p>Ngāti Pahauwera largest landowner for Pan Pac – rental from forest helps fund development into better things.</p> <p>We are not anti-forest but there must be a cap, there must be a limit.</p> <p>Iwi agribusiness is the absolute boom.</p>

Theme	Point 1	Point 2	Point 3
Corporate	Partnering with corporates to get expertise and technical transfer – yet to see if talks about training are just lip service – but saying the right things.		
Other social factors that are contributing	High gang influence in Hawke's Bay	<p>Huge urbanization that dragged people out of Wairoa, Mohaka, Tutira etc. Industries were in Hastings – took people and their families are away from home. Very few families returned to Wairoa.</p> <p>We need to reverse urbanization. Orchard, packhouse, timber yard, trucking company – lots of associated industries</p> <p>We are not going to pack our fruit out of Wairoa.</p>	General make up of Wairoa – high unemployment rate currently – if you are from there and going home you are going home because you haven't achieved

Appendix 5

DR PETER KLAASSEN, GM HORTCULTURE, CRAIGMORE

Thursday 22 October 2020, 3.30pm

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	6 years at Craigmore – originally came in as a Business Manager for Sheep and Beef. Moved more into Horticulture.	PHD Lincoln in sheep and beef farming systems.	Originally from Whakatane,
Land Use Change in Hawke's Bay	<p>Craigmore purchased a 480 hectare property in Central Hawke's Bay – SpringHill. Was previously commodity crops – peas and pumpkin and are converting to horticulture and viticulture. Investment currently ~\$50 million.</p> <p>136 hectares planting in apples</p> <p>160 hectares going into grapes.</p> <p>Now taking a breather on allocating the balance of the land – see what new varieties or market demands arise.</p>	<p>Why CHB?</p> <p>Wanted to go into horticulture – but as an Overseas Investment need to show that we are adding value to get OIO approval. We are not trying to reinvent the wheel – couldn't buy an existing orchard with OIO approval. Due to the circumstances have to invest in areas that are a bit more unknown..</p> <p>CHB is not the most traditional growing region in Hawke's Bay – so has different risks associated with it. "If we didn't go there it was unlikely that a NZer would".</p> <p>It has exceptional soils and water</p> <p>"Our focus is about picking the right land for the right land use"</p> <p>Really exceptional deep soils – good for apples and for wine..</p> <p>Good growing region</p> <p>Really good soil</p> <p>Have access to water – most limiting factor is access to water</p> <p>Higher degree of risk / uncertainty – frost risk, extreme wind, hail – which has driven further mitigating investment in capital such as hail nets.</p> <p>Scale really appealing</p> <p>Springhill ticked all the boxes and also had the scale.</p> <p>Factors important to Craigmore in new development:</p> <p>New to region, need to earn stripes "We are new and know we need to prove ourselves"</p> <p>We have a focus on empowering managers onsite to create community connection – "our</p>	<p>Forestry investment – we haven't invested in forestry in Hawke's Bay – but our ultimate goal is to try to facilitate the right land use for the right land. "We don't get it right all the time, but that is the intention". Forest investment has been in Northland and the Wairarapa. We have chosen not to invest in Gisborne as don't want to contribute to further erosion. Wairarapa has been more contentious but in Northland can see the effect of investing on land that was previously not utilized.</p> <p>Craigmore have intentionally made rules around forestry – to be compliant you have to be set back 10m from waterways – Craigmore has chosen to be 30m back and do native buffer planting instead. – it's about doing the right thing.</p>

Theme	Point 1	Point 2	Point 3
		<p>intention is to become an integrated part of the community and facilitate community growth”.</p> <p>Springhill is a growing little community and we know the influence we can have.</p> <p>Craigmore has a real focus on sustainability – doing things right. planting out natives – we have planted 1000s of natives; to be a steward to the land</p> <p>The income per hectare is so much higher than the arable that it was in – so we are more financially capable to invest in and have a social and environmental obligation to do the right thing.</p>	
Employment and Training	<p>In the past looking at investments in the middle of no-where but CHB more attracted as people want to shift to CHB to work for the lifestyle factor – so Craigmore is providing an opportunity for growth in the region that is already attractive.</p> <p>“Trying to be real... we want to create a work environment where people want to be”</p>	<p>We are still really new to CHB and employment and labour is really our next focus. In infancy of connecting with MSD and EIT – at the start of the journey, want to be part of a regional solution.</p>	<p>In Northland are effectively using labour for both forestry and horticulture investments. Gisborne (CoxCo) pumpkins, squash and maize, as well as a season labour company . Also helps out in forest – recently working with training body to train local people.</p> <p>Dairy farms with 25K cows – always focusing on local touch – bottom up, farm centric initiatives – real people on the ground – culture of the business.</p>
Māori communities and investment	<p>Good example in Northland – where there was challenge with providing water for avocado orchard. There was an option to go direct to Council to get consent however prioritized engaging with local iwi regarding the water source and made some huge concessions in order to create a win-win outcome. We wanted local iwi support in our venture – we wanted buy in and knew we could offer opportunities for both of us to prosper.</p>		
Values and Perceptions	<p>Craigmore proud of values and culture</p>	<p>Kaitiaki engrained in business culture around social and environmental impact.</p>	

Theme	Point 1	Point 2	Point 3
Role of corporate	Craigmore – kaitiaki – growing the best in NZ – multifaceted – responsibility to be a steward of the land – growing the best crops, growing and upskilling people, growing communities (enabling people) and creating outcomes at a community level. Only 10 years old, so still only new we are here to help grow the best of New Zealand.		
Role of government	Haven't engaged with local government and agencies pre investment in a formal sense – more collaborative as often looking at more than one opportunity and has to be done without breaching confidentiality.	Northland – council specifically supported Craigmore investment and provided letter with OIO application. Contact an approach – people came on board	

Appendix 6

CRIAG LITTLE, MAYOR, WAIROA DISTRICT

Wednesday 28 October 2020, 11am

Theme	Point 1	Point 2	Point 3
Background	Sheep and beef farmer on 1200 hectares towards Lake Waikaremoana.		
Land Use Change in Hawke's Bay	<p>Some of the best land n Wairoa going into forestry. 20 years ago it was only the worst land that was going into forestry but not anymore – "It's scary what's happening".</p> <p>Steep country is better in sheep and beef.</p> <p>In our district this has not been happening and instead over the last year or so we have seen a total of 10,000 hectares so to large scale radiata pine plantations. That's around seven percent of productive farmland going into afforestation</p>	<p>Wairoa has a lot more trees compared with the rest of Hawke's Bay.</p> <p>We are making progress across a variety of sectors but preventing further blanket forest planting on our productive land remains a priority.</p> <p>Wholesale forestry planting poses a catastrophic risk to rural communities like Wairoa.</p> <p>More forestry planting threatens our sheep and beef industry, our local economy and the district's largest employer, the AFFCO meat processing plant.</p>	<p>Major challenge – carbon farming – carbon forests, will never be pruned and after 40 years they won't be mill able. "The future is scary". Carbon forestry is our biggest threat.</p>
Employment and Training	Dave Reid calculated that 3 jobs per 1000 hectares of forestry compared to 10 jobs per 1000 hectares of sheep and beef		
Māori communities and investment	Council currently working with iwi on horticultural investment. It's been quite hard – farmers are scared that by the time thy convert that it's already a "has been".		
Values and Perceptions	Invite forestry to council meetings so they can hear first hand from the community. Forestry are not that involved in the community – completely absent from youth employment.		

Theme	Point 1	Point 2	Point 3
Role of corporate	Council increased roading differential for forestry based on volume of trucks and weights – 30 times more road movements than sheep beef. Pan Pac not happy.	Recent Government decisions such as Japanese owned Pan Pac Forest Products being given special approval to bypass the Overseas Investment Office to purchase land for forestry over the next three years does not give me a lot of confidence that we are being taken seriously.	
Role of government	We need to actively work with farmers so it doesn't kill the community.	<p>I believe collaboration between Te Uru Rākau, the Ministry of Environment, The Hawkes Bay Regional Council and Wairoa District Council we will be able to hopefully achieve an outcome that helps Wairoa while realising we don't have a lot of time on our side.</p> <p>Currently, the Wairoa District Council does not have the tools to stop blanket planting as the National Environment Standards put in place by Central Government overrides anything the Wairoa District Council can do.</p> <p>We have no power to regulate around our four wellbeing's of social, cultural, economic and environmental which is why productive farmland is being sold to be planted in forestry.</p> <p>Wairoa is not alone, it is important Central Government recognises blanket forestry is creating a community problem.</p> <p>Nationally it looks like a gradual redistribution in land use but unfortunately the areas in New Zealand that need trees aren't being planted and Wairoa is getting the brunt of it.</p> <p>At the moment, natural regrowth and riparian planting is not captured by the one billion trees so we are pushing the Government to recognise that.</p> <p>We need overlays of past maps to present so the plantings can be recorded, and carbon credits realised.</p> <p>Farmers also need to step up and start planting riparian strips in recognition of the carbon benefits and positive environmental spin offs.</p>	<p>Te Uru Rakau and changes on OIO meant forestry can outbid sheep and beef farmers.</p> <p>Wairoa hosted members of Te Uru Rākau (Forestry New Zealand) along with regional and national stakeholder representatives to discuss our concerns and issues around forestry.</p> <p>The two-day field trip included visiting forestry blocks, both new and mature plantings, and simply capturing a feel for our district, its terrain and landscape.</p> <p>There are a lot of unknowns and I believe the group involved in last week's visit was really pleased to have a Council onboard and showing so much interest.</p> <p>The Wairoa District Council is currently reviewing its District Plan and Te Uru Rākau (Forestry New Zealand) has committed to help Wairoa and use our district as a test case.</p> <p>It was great to see staff travel from Wellington to see our landscape and experience our district rather than making decisions from afar which is often what happens in Government circles.</p> <p>This is breakthrough stuff and Wairoa is pioneering change. I look forward to the positive outcomes.</p>

Theme	Point 1	Point 2	Point 3
Industry bodies	50 shades of green – have been in Wellington when they were protesting – if you want to achieve something at national level need to be collaborate and solution focused.		
Examples external to region that we could learn from	Gisborne – the afforestation on the East Coast, Gisborne and north has kills communities, schools have closed.		
Other factors	<p>I have been campaigning against blanket forestry planting and its consequences for years, more recently lobbying against the Government's One Billion Tree Project.</p> <p>The Government's goal is to double the current planting rate to reach one billion trees planted by 2028.</p> <p>While the programme has the potential to deliver benefits for our environment, our people, our communities, and our economy, the focus needs to be on the right tree, in the right place, for the right purpose.</p>	<p>The One Billion Tree Programme is not the only catalyst that is causing a land use swap from farming to forestry.</p> <p>The main driver is speculative investors, outside the One Billion trees Project who believe carbon credits will increase dramatically and will be a major trading currency of the future.</p>	

Appendix 7

LEWIS RAPATU – GENERAL MANAGER, TATAU TATAU O TE WAIROA

LEON SYMES – CHAIRMAN, TATAU TATAU O TE WAIROA

Wednesday 14 October, 1pm

Theme	Point 1	Point 2	Point 3
Background	Both originally from Wairoa	Data/technology background	
Land Use Change in Hawke's Bay	Kaumatua reinforce that land use change cannot just be about the economic return but about the people	Increase in forestry is threatening the viability of freezing works – which has been a key employer for the Wairoa region. Forestry is typically FIFO – and doesn't employ locals in the region	Horticulture is forecast to add an extra \$8 million to the local Wairoa economy per year. Next year intention is to start building orchards in Wairoa – 2D – new tech.
Employment and Training	Challenges around partnership with training institutes – negotiation around commitment of full time students. At infancy stages of negotiation, with the likes of EIT.	We want to get our people working on established orchards – probably in Heretaunga and would like them to be working on 2D orchards like what will be planted in Wairoa.	Culture change for learning – how kids in kohanaga and reo have connection to whenua. Nuhaka is an enviro school.
Māori communities and investment	Many Māori disconnected and separated from "old knowledge". Māori communities reliant on contractors and buying in expertise when it comes to land use diversification. Ignorance is bliss – the flow down effect	Tatau Tatau established as a Post Settlement Governance Entity but is focused on change leadership. Two options – lease land and grow as Tatau Tatau or more of a co-operative model where land owners have more invested.	Ambition for Māori – gain as much value as we can – the industrious nature of Māori is shown throughout history. In the 1840s Māori picoted quickly from flax to flour. Colonization policies took trade away from Māori. In general, Māori don't like spending money – like having a good balance sheet,. Conservative nature = I'm succeeding.
Values and Perceptions	Younger generations are tending to be more innovative and receptive to changing land use – there is an overall resistance to change – risk of the first mover until it is proven	Although historically Māori land has been in sheep and beef, the connection and affinity is with the land / whenua rather than the use of it. Papatuanuku is at the centre of the Māori world view – and the social outcomes are levered from the connection to the land.	
Role of corporate	Agritech is going to play a big role in commercial arrangements and ensuring there is data to support and mitigate risks rather than just lip service.	Social, environmental and economic bottom lines in commercial partnerships. When working with large international corporates it is critical to understand who we are connecting with – and that often requires to be traced back to the parent company shareholders and engaging in conversations with them. This has happened really effectively with the forestry interested with	

Theme	Point 1	Point 2	Point 3
		JNL who are Japanese owned – and there is an alignment between Japanese and Māori values.	
Role of government	Farm Management Plans –	History of colonization has created an inherent mistrust between Māori and non-Māori and especially government.	Central and Government Policy serves major population but does not normally serve small rural communities like Wairoa. Wairoa were requested to collaborate in a regional recovery plan but
Role of industry bodies		Financial literacy	
Collaboration pan-sector approach to region	There is not enough joined up discussion plan sector - the investment in data and technology may help this discussion	Pan sector perspective – NZ Agritech model.	
Examples external to region that we could learn from	Every PSG is an iteration of the last.		
Other social factors that are contributing	Housing issues	Leadership vacuum – how do we attract people back to the region. Estimate approximately 36,000 people globally with a connection to Wairoa – how can we bring them home. Working through a communication framework to do this. COVID may accelerate the rate of bringing people home.	Industrial urbanization – historically there were lots of small business in Wairoa owned by Māori. Then the Freezing works became an attractive option through the boom for sheep and beef, for three decades. Immigrant whanau have now replaced Māori in low value roles and Māori have subsequently lost the small business culture.
Other factors	Agritech – data focus. Trust codes – block chain to visualize the supply chain and show consumers where the product is from, how many jobs were created by the product, cultural values etc. Using data to show environmental and social benefits.	Water is a key issue – especially when communicating the horticulture vision for Tataua and ensuring that there are bottom lines for the environment.	COVID -

Appendix 8

MORGAN ROGERS – HEAD OF INNOVATION AND TECHNICAL, T&G GLOBAL

Friday 11 September, 12pm

Theme	Point 1	Point 2	Point 3
Background	<p>Horticultural scientist – Lincoln university.</p> <p>Last student that got a Bachelor of Horticultural science.</p> <p>300 graduates a year in Viticulture and only 50 jobs.</p> <p>.</p>	<p>From Brightwater, Nelson. Family moved from Wellington (Father executive in Post Office, which was then deregulated) – and then became an orchardist.</p> <p>Generation of people who decided to start their own business – upswing in hobby farms, money from corporates in Wellington.</p> <p>Family – work ethic important</p>	<p>Age of 14 – packing fruit.</p> <p>Waimea Nurseries – senior manager.</p> <p>As you track through that people understand skill and industry – Morgan wanted to understand full supply chain – wanted to see what an apple tree actually turns into.</p> <p>That's why he came to work for T&G – went to France to learn about foreign apple production – 365 production and supply "Big Mac theory".</p>
Land Use Change in Hawke's Bay	<p>2010 – massive decline – more supply than demand in apples - saw a decline in area of production, but 30% more saleable product off of the land. Volume game – focus on better staff, better orchard systems, focus on systemization – from stand alone trees. Focus on systemization to the next step.</p>		
Employment and Training	<p>It is becoming incredibly clear that we need skilled staff – you have to be an orchardist "not a fruit farmer" – apple industry impact – massive rift between fruit farmers and orchardists.</p> <p>Social impact in places like Wairoa – where we are looking at land diversification – important that they don't get into "fruit farming" apple production. High skill level is required..</p> <p>The problem is people like T&G – are still planting every year and the turnover of staff from a zero knowledge base to an orchardist base is too slow. It's not happening fast enough.</p> <p>There is a real concern – particularly around COVID-19 – that the labour could potentially take us to</p> <p>We keep developing a bow wave of staff – that is never going to get there.</p>	<p>Ways we educate staff with the reduction in specialists – videos on how to prune (Multi-industry project – blueberries, grapes and apples Lincoln, Auckland Massey (AI glasses for pruning)</p>	<p>Specialist roles in horticulture – is this required – T&G has had a focus on getting non-hort perspectives into the business i.e. the Fonterra's and FMCG</p> <p>What you don't learn in study and certificates is the ripple effects – the biggest threat for the industry – seeing students as students – not disciplined or modest enough – to allow students to churn but retain within industry.</p> <p>Invest in people a lot more – we see in horticulture that people are so busy in their day to day that there is a lack of support for up and coming.</p> <p>The environment to apply and learn – a better mechanism to allow students to move between business.</p> <p>Capitalist environment</p> <p>Throw students in the deep end – how do businesses and culture changes – to foster new people coming into the industry – a mentality that needs to change. Rather than ostracizing a student.</p>

Theme	Point 1	Point 2	Point 3
Values and Perceptions	Rogerrnomics discussion – family farms now turning into corporate.	I'm a famrer and I've been doing it for 20 years now thinking – taking the time to share the knowledge and being OK to let it go.	
Role of corporate	There is a link missing to manage – mentoring is quite weak at every level – better systems to mentor.	Growth 10-20% of your time mentoring and coaching.	Attract and retaining the talent pool – hort is missing the glamour pool of agri-business. Looks like a whole bunch of people picking apples or pruning trees. Employment and training Still the same people managing horticulture and forestry that their was 20 years ago. The names in horticulture haven't changed. The knowledge is getting bottlenecked into a few people. Succession planning from the old boys network is failing. Failure of corporates to show the entire supply chain. Wairoa and Canterbury – challenges in showing that there is both low skilled and high skilled labour pools – how do you re-engineer what the labour pool looks like.
Role of industry bodies	Hort NZ and NZAP – industry can support something but it is the funding of businesses to get things started		
Other factors	Technology/ Automation impact on RSE schemes and local employment – People freaks out when T&G said we are going to have the first robotic apple harvester Given the scale of development – we need more of everything – staff base is never defunct but it could be funneled into other areas. We are no-where near 100% automation. We can soften labour requirements through automation and Robots aren't the solution for everything – but it can support us to maintain sustainability.	We have to understand the jobs that need to be done and we have to change the way that we do business to accommodate for the staff that we can find – we are making 2D orchards that are zero ladders – so we can have more people pick cleaner faster and safer. Platforms. Robotic harvesters – so people into packhouses rather than in the field. Trying to make our business more protected so you don't need specialized staff as well as a safe and easy work environment – nicer place to work. Trying to upskill staff, but changing production to meet staff availability and capability. “Automation in horticulture – we are still carrying the Motorola phone around.... we are waiting for the Iphone” So we are making orchard investment decisions and how we grow apples so when Automation gets here it can deal	

Theme	Point 1	Point 2	Point 3
		<p>with the orchards we have – rather than trying ot deal with platforms.</p> <p>3 Dimensions</p> <p>Adapt the system to make it easier for people to work, and less reliance on staff</p> <p>Developing automation – investment -</p>	

Appendix 9

TIM SANDALL – GENERAL MANAGER, FORESTS, PANPAC

Friday 29 October, 3.30pm

Theme	Point 1	Point 2	Point 3
Background	Worked for Pan Pac of 23 years.	Integrated forest products – 3 business – lumber, pulp and forestry Pune logs are the focus for the sawmill – over 50% of logs that go through Log security to the sawmill and pulp mill / optimizing value / 35 hectares of forests / generally within 100km of PanPac / 5 forests / Tangoio freehold / all other now Maori land	
Land Use Change in Hawke's Bay	35,000 hectares of Pan Pac Forests – this has been relatively stable during his tenure. Recently purchased more	Last three years Pan Pac have purchased 120 hectares – mostly land that already has trees – but want to buy more bare land.	Fore3stry is mature I Wairoa. Creates a continuum of work
Employment and Training	PanPac employs 440 people. Plus 400+ contractors. Generally operate a central hub rather than localized crews. Localized crews can be more challenging – skill wise	We have more work than workers. Because we operate silviculture we have 12 months a year of work. Other foresters don't always have this and often faced with seasonality challenges.	70-100K earning potential.
Māori communities and investment	30K hectares Maori land – 70 year license to operate. 35 year mid point – stryctured that can choose to leave lease at this point. One block cae up for renewal and went into termination.		
Values and Perceptions	Trying to digffuse forestry versus farming conflict in Wairoa. We have to work together to find a solution to do that.	Solution is complicated. There is a belief that farmers can't compete with forestry when purchasing land.	Need to change perception of industry - technology, advanced opportunities
Role of corporate	Pan Pac want to have control over the crop we grow.		
Other factors	Erosion susceptibility – actually land that can't be harvested – make decisions that we won't look at land with very high and high erosion susceptibility.	Demographic challenges	Partnership with Freshco to utilize RSEs in 2020.

Appendix 10

ERIN SIMPSON – CAPABILITY DEVELOPMENT MANAGER, NEW ZEALAND APPLES AND PEARS

Tuesday 22 September, 2pm

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	Whenua to Taranaki originally. Always have been involved in horticulture – originally kiwifruit and sub topicia fruit,	Became involved with apples in the early 1990s. Family owned and managed an organic apple orchard 2000-2018 at Mangateretere supplying Bostock Organics. Also managed Mr Apple packhouses.	Focus on education and training, NZAP for 5 years as the Capacity Development Manager – developing pipelines and pathways with a career focus from schooling through to Post Graduate. Current role has a National focus.
Land Use Change in Hawke's Bay	A significant body of research on land use in Hawke's Bay versus suitability economic ROI, compared apples, kiwifruit, citrus and hemp. More foresight regarding using land for the best use – triple bottom line approach	Diversification of land use on existing farms – becoming pan -sector farmers – thinking about the best use of their land. Mixed land usage (Cameron Boyce – economist)	Land usage – geography of Hawke's Bay land – what the Tukituki and (two other rivers) looks like 300 years ago versus now and what they will look like in 300 years time.
Employment and Training	The key is allowing people to find primary industry through whatever connection they have – whatever it is. Show people what is available within the primary sector – stop thinking animals versus plants	Schools – STEM – creating context for employment in primary industries other than the image of fruit picking.	Reforms of vocational education – involved with Regional Skills Leaders Group and Regional Economic Plan.
Māori communities and investment	In the last 18 months working closely with Ngāti Kahungunu – who are interested in IP ownership, indigenous branding, post settlement – 600K hectares – land use for markets, horticulture.	Advising that when engaging with corporates advising on climate and soils, that an 18-20 year contract should also consider how whānau can come along for the ride "What if lease agreements" took that into account,	Ngāti Kahungunu – Trevor Moeke – view to create long term wealth for whānau and the region
Values and Perceptions	Manaakitanga – always relate values discussion back to Māori principles Te Taiao – great narrative but not enough focus on implementation and how it will happen	Distributed Leadership Model – generation away from that happening; transgenerational – too much of a jump within 30 years for the baby boomer generation	RSE – perception that RSE are better workers – and they are but only because of repetition and training coupled with the right attitude.
Role of corporate	Large horticultural exporters in Hawke's Bay have good intention but we are not quite there yet as good land becomes more scarce	Businesses and owners that will do the right thing	
Role of government	Dutch Diamond Model – economic model for collaboration between industry, research and government	"We don't think about the next 20 years, we care about forever"	

Theme	Point 1	Point 2	Point 3
Collaboration pan-sector approach to region	Work together in terms of seasonal peak labour, but there is a need for people to work together more holistically.	COVID accelerated reason to work together.	
Examples external to region tat we could learn from	Kiwifruit industry – Te Awanui Huka Pak – developed relationship with, whanau coming through with management structure – still a work in progress	Wakatu Inc– social perspective	Deep seated animosity – HB versus other regions external to HB looking in – feel like Hawke's Bay have more access to RSE labour
Other social factors that are contributing	Urbanization	Drugs and alcohol	Ageing population – lack of succession planning – redundancy factor on many individuals
Other factors	COVID economy rather than COVID recovery	Environmental focus	Food production on a global scale

Appendix 11

ALEX WALKER – MAYOR, CENTRAL HAWKE'S BAY

Tuesday 13 October, 11.30am

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	Viewpoint of investing in people – with a long term view to maximize the opportunities and connections within the community		
Land Use Change in Hawke's Bay	Money driving forestry planting	Dairy has such a minor presence in Central Hawke's Bay – more perception than problem.	Diversification of land se – holds a number of risks and assumption s – Land use diversification – think about who benefits?!
Employment and Training	Employer / employee relationship has changed – layer of complexity for positive social outcomes – there is a force of millennials to conform to a baby-boomer value set.	Like attracts like – how can we make young people visible and successful publicly.	National Mayors Fund – accelerate employment outcomes for youth COVID recovery funding – 40 people learning on the job working for the Council/EIT/MSD/Te Waiwhenua on tree maintenance, traffic management, and now redeployed into other roles. One of the sub contractors to the council mentioned that once these people had gone into the “system”
Māori communities and investment	Iwi trust purchased Guavas station – now has local tangata whenua governance - running a mixed sheep/feeb/crop model	PGF potential investment being looked at in Porangahau area – specifically underutilized Māori land and how capability could be built in the area – specifically trialling growing avocados.	Kairakau Lands Trust and neighboring PAMU land proactively managed the transition to forestry – “before even a tree was planted or access road created there was proactive management with local iwi to ensure there were no tapu sites to be impacted – and even skylines and hills that have told traditional Māori stories were considered to ensure the visual landscape was not impacted”
Values and Perceptions	Regulatory challenges remove social license for forestry	Connection to land – tangata whenua, People who have been of land for generations – require a move in value set as climate changes	Social license has changed – previously systems like dairy were rewarded which is why we saw conversion to dairy farms – but at what cost?
Role of corporate			

Theme	Point 1	Point 2	Point 3
Role of government	Local government is an important mechanism – and makes decisions based on the best economic, social and environmental outcomes.	Local government is the most representative leadership structure that we have in our community.	Public sector have a responsibility to make it obvious to private sector where and how to come and have the conversation.
Examples external to region tat we could learn from	NZ Inc perspective – see an infinite ability to feed the world – at a finite cost to people and the community.		
Other social factors that are contributing	Gang influence	Need to be careful when even generalizing to a Hawke's Bay level when looking at statistics – there is high overall unemployment for 18-25s in Hawke's Bay but in Central Hawke's Bay the rate is significantly lower as there is more of a wrap around network and likely that more of this age group leave the CHB region.	Demographic shift – aging population
Other factors	Too reliant on water – dry land farming is way forward/ Water is an ongoing topic with the changing climate – CHB will have to revisit the water storage discussion (Ruataniwha Dam was vetoed) – and what water storage will look like in the future. Have always allocated water on a first in, first served basis – as their was a belief that water was infinite.	Hawke's Bay has naturally significant soil types	Technology shift – less people, less inputs

Appendix 12

SIMON WHITE, MIXED CROPPING FARMER, OTANE – CENTRAL HAWKE'S BAY

Wednesday 21 October 2020, 5.30pm

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	<p>Multi-generation family farm.</p> <p>10 different crops – cereal crops, small seeds, process vegetables, fresh vegetables, hemp, wheat, barley & other commodities.</p> <p>Have diversified with high value market demand for high value products.</p> <p>Hemp is a vertically integrated (growing, processing, marketing) business – Kanupu Hemp Food – supplying retail in NZ – oil, flakes, protein, flour,</p>	<p>50 years ago the farm was purely cattle. Then moved to mixed sheep and beef. In around 1985 his father Neil White put 20 hectares of apples in which was in until about 2005. When they diversified into orchards they struggled with labour, and barely broke even with eth grower return. They then went into more large scale commodity cropping – peas and squash. Even had pigs at one point.</p>	<p>In the last 10-12 years since Simon returned to the farm, they have diversified into more high value crops – started small with 2-3 hectares of a certain crop and have gradually grown.</p> <p>Still run sheep and cattle as well as the cropping – gives multiple income streams and diversifies risk and keeps interest levels up for Simon and his two staff.</p>
Land Use Change in Hawke's Bay	<p>Personal drive and curiosity has driven his land use change on farm. Curiosity to see if you can capture more value and a passion to do something different". Having diversified into the hemp business has provided good exposure.</p>	<p>Interest around regenerative farming but believe that ultimately our farming systems are already regenerative. Regenerative farming could just be referred to as biological farming - Using more biological products focused on soil health.</p>	<p>First mover – there was no one in Hawke's Bay that had the capacity in small seeds – SPS then came to the region and did two trials – one with Simon.</p>
Employment and Training	<p>Cost of labour increased significantly per hectare</p>	<p>Have never had any challenges with staff – hiring as always been word of mouth – people have only left as too skilled and wanting progression which we are not at the size to have a manager.</p>	
Values and Perceptions	<p>Don't believe that low lying hill country should be used for forestry – that is taking away productive food producing land. Class 7 or 8 land is a different story and probably should have a pine tree.</p>	<p>Carbon Farming is just about quick cash flow</p>	<p>Diversification is about a mindset. Some (like Simon) are naturally inclined to be more curious. Simon still interested in diversifying further – potentially sheep milking, hops, usually looking for something more niche otherwise there is a need to partner with someone big which is challenging.</p>
Role of government	<p>Government focus to premiumise products, and premium pricing.</p>		
Role of industry bodies	<p>Sits of the Members Council of FAAR.</p>	<p>Landwise is supportive with research impacts on best practice and see lots of industry collaboration on environmental projects and outcomes.</p>	

Theme	Point 1	Point 2	Point 3
Other factors	Water is a massive challenge in Hawke's Bay – we have high value land but not enough water – we are already over allocation on water.		

Appendix 13

MAURICE WINDLE – SUPPLY AND SERVICES MANAGER – EAST COAST, T&G GLOBAL

Monday 19 October, 9.30am

Theme	Point 1	Point 2	Point 3
Background	<p>Started as a picker, then went labour contracting, self employed for a number of years. Downturn in apples he went and worked as Labour Manager for Apollo Apples which was then bought out by T&G.</p> <p>As a labour contractor, was mainly in horticulture but went wherever there was work</p>	No family background or ties to horticulture – originally from Invercargill.	
Employment and Training	T&G has worked well with MSD, securing PGF funding and running the Emerging Leaders Programme. The pilot programme of this on orchard means that more junior members of the T&G team have taken ownership of small problem blocks and come up with strategies.	<p>“The training model for T&G has changed – the focus in on teaching and engagement, we will work with anyone with a good attitude and put in the effort to increase the specific technical abilities”</p> <p>T&G aim to individualise the experience, make them feel welcome, ensure it is a positive environment, and work to remove as many barriers as possible – whether it be fines, police, transport, medical, housing.</p> <p>“There has to be someone who cares”.</p>	Land use change will bring more jobs and employment opportunities especially with the growth in horticulture
Māori communities and investment	Collaboration with Moteo Pa – working with youth in the Maraenui area.	Tangaoio – youth engagement on orchard.	
Values and Perceptions	Some industry participants treat labour like commodities – both RSEs and local labour.	Farmers inherent belief in the land – love and believe in the land.	Hawke's Bay has a really bad perception of horticulture – from previous experiences of family and friends, picking and thinning.
Role of corporate	ROI – key focus on land use diversification	T&G workers on orchards are well looked after and are proud of and love the T&G brand.	Corporate perspective – we don't always walk the talk. “It's not just about putting apple trees in the ground”.
Role of government and associated agencies	It's about connecting the right people – it's also about a culture shift and learning for agencies to see what T&G is about.	Important for the correct representation at local government level – Nigel Bickle – CEO of Hastings District Council; (previous MBIE boss) good connection. Have worked with council on youth employment across the spectrum.	Perspective on effectiveness of local government changes dependent on what area we are working with – when it is compliance or regulatory based usually more negative. Sometimes do need to question how much of a social focus there is.

Theme	Point 1	Point 2	Point 3
Role of industry bodies	EIT and Primary ITO are getting better with integration with corporates like T&G. A real focus on industry engagement.		
Collaboration pan-sector approach to region	Lack of collaboration within the horticultural industry – the industry has different views on the value of labour and differing levels of pastoral care.	The T&G business has become less and less seasonal with both vertical integration in apples and diversification into other crops. There is a real focus on a 365 approach for sales which is also creating a sustainable employment option.	T&G has gone into a joint venture with Ngai Tukuangi Trust – a kiwifruit grower and packer and also collaborating with MSD – open to new ideas around labour strategies.
Other social factors that are contributing	Drug and alcohol abuse	Lack of engagement when young people fall out of the schooling system – “the forgotten” generation is an ongoing issue	Housing shortage – “I believe that all horticultural land investment should come with a joint housing proposal – so we can build communities around the land” COVID – people are already coming home – will put more pressure on housing.
Other factors	Special roles and special people. “If someone starts talking to be about money before they start talking about people, I just walk away – you have to be real and you have to be in it for the right reasons”. Connections throughout the industry with people you trust creates a lot of opportunities.	Median income in Hawke’s Bay is too low – living wage.	There is a real challenge around a small few in the industry with all the intellectual knowledge – they can’t hold onto this knowledge and need to let go to build a great sector. Succession planning risk – market gardening story – knowledge transfer. “You’ve failed him”.
	Investing more in 2D orcharding structure – more mechanization should result in higher paid more skilled jobs in the industry and safer jobs. There is a perception that mechanization will result in less jobs for local but the industry growth that is unlikely.	COVID – should bring home a highly skilled labour force; but we may not be able to afford them – The \$\$ expectation will be higher.	Corporatization of farming – often impacts people’s ability to be held accountable – but we are seeing changes to this with the right culture change.

Appendix 14

STEVE WYN-HARRIS, SHEEP AND BEEF FARMER, WAIPUKURAU – CENTRAL HAWKE'S BAY, OWNER AND HOST OF "THE COCKY'S HOUR" – CENTRAL FM RADIO
Thursday 22 October 2020, 1pm

Theme	Point 1	Point 2	Point 3
Background to industry/experience and role	24 years ago started on Central FM – they wanted a rural radio show to build advertising around. He was already writing a column for Farmers Weekly. Central FM asked him to do 2 x 1 hr slots Tuesday and Thursday for "Let's Talk Farming" – didn't like the name so said he'd do it but would be called "The Cockies Hour". Purchased Central FM earlier this year.	Sheep and beef farm and about 5% in feed crops for fattening. Started farming in the mid 80s – his experience is that farmers are extremely adaptive and have progressed a long way from farming systems of the 70s. Also has a genetics part of the business – Marlow Genetics.	Forestry – started planting pine trees 35 years ago – it was and still is a no brainer. And as a result of that we are building a flash beach house. Put the worst land on the farm into forestry – has provided two additional income streams – carbon and harvest. It's a better allocation of resources, you only fertilize land which is actually productive now,. 15-18% of the farm went into forestry – the stocking rate didn't drop, utilized as a rough feed reserve, has numerous shade and shelter benefits. Netted 43K per hectare on 9 hectares. It's a compelling ROI. Carbon farming he is less in favor of. Also diversified into nut trees and asparagus.
Land Use Change in Hawke's Bay	Existing sheep and beef systems can better accommodate drought conditions in Central Hawke's Bay so haven't seen much shift in sub-region.	Steve has planted 60-70K native trees on his property over his lifetime. Capturing new carbon credits.	
Employment and Training	Growing Future Farmers. GFF. Farmer driven, getting young people onto farmers – smaller scale of what we have seen with Smedley Station and Waipaoa Station cadetships. Taking school leaver. This is an industry led initiative to fill the pipeline.		
Values and Perceptions	Met with David Parker on farm to show him riparian plantong – Steve has actively been creating wetlands.	There are opportunities with forestry and carbon on appropriate parts on the farm and you can't argue with the economic return. There is a pragmatism required with the change. There may have been no need to sell sheef and beef farms into forestry if 30 years ago those owners had been more pragmatic and looked at forestry in appropriate areas.	There is no doubt that large scale afforestation guts communities, closes schools and Wairoa is evidence of this. There has been less impact in CHB.
Role of industry bodies	Hawke's Bay Farm Forestry Association – have been involved and was President at one point.		

Theme	Point 1	Point 2	Point 3
Other social factors that are contributing	Social license – COVID19 induced the country's reliance on the primary sector.	Economic impact of COVID – market forces, debt at some of the highest levels we have seen in this country.	Foot and Mouth Pandemic as well as the decrease in tourism.
Other factors	Water Ruataniwha dam Plan 6 change Freshwater reform Learnt our lessons from Canterbury	Water is a limiting factor for horticulture growth. Waipawa and Waipukurau had had chronic issues with town water. If the Ruataniwha Dam Project had gone ahead it might be a different story for Central Hawke's Bay.	Big threat is talk of regenerative agriculture – if this gains imagination – there is little difference to the existing farming systems – science doesn't back up regenerative agriculture communication.

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