

The Social Impact Of Converting Traditional Agricultural Land Into Horticultural Land within my Iwi.

Tom Keefe October 2015

Table of Contents

Introduction and Background	4
Methodology	
Case Study Methodology	7
Literature Review	
Ngati Pahauwera Grievances	8
The Treaty Settlement	11
History of Māori Land	14
Urbanisation	15
Māori -Born Horticulturalists	16
Why Horticulture?	17
Why Horticulture in Pahauwera	19
Farming vs Orchardng	20
Social Issues for Māori	
-Child Poverty	21
-Relationship between unemployment and crime	24
-Relationship between unemployment and Health	26
Case Studies	
-Wakatu Incorporation	28
-Ngai Tukairangi	32

The Solution

-What needs to change? **35**

-What does Change look like **36**

The Plan

-Step one, offer employment opportunities' **37**

-Step two, offer a career path, not just a job **38**

-Step three, Lift the standard of living **39**

References **40**

Introduction

My Iwi - Ngati Pahauwera.

Ngati Pahauwera is a confederation of clans centred on the Mohaka River in northern Hawke's Bay. The tribe did not sign the Treaty of Waitangi, Chief Paora Rerepu sold large areas of tribal land to participate in the new economy, and supported the colonial government against anti-government Pai Marire (Hauhau) and Te Kooti fighters.

To be from Ngati Pahauwera is an honour that we all hold proudly. We are quick to advise strangers of our lineage to the region in order to take the front foot in Korero. Descendants of Pahauwera are global but we still have a common connection to our home through our whakapapa.

At the heart of Pahauwera are the Māori settlements of Raupunga and Mohaka. Mohaka being close to the Mouth of the mighty Mohaka River and Raupunga situated 20 minutes upriver, close to the Mohaka viaduct, the Tallest Railway Viaduct in Australasia.

In conversations with Pahauwera Leaders I have been told of the good old days when there were jobs for everyone. You were either a Farmer, Shearer, Ganger on the Railways, Driver for the Ministry of Works, Forestry Worker or you drove the short distance to Wairoa and worked at the Freezing works.

Most of the Jobs were hard labour intensive ones, jobs where you knew that you had done a hard day's work, jobs that young Maori thrived at. Today those jobs seemed to have been scaled back or restructured in preparation to sell off to the highest bidder and this has come at a cost to our people.

Within the Raupunga and Mohaka area I remember growing up with a Fish n Chip Shop, Movie Theatre, 2 stores, a Post Office, a Police Station and a Pub, today we have none of these. The Urbanisation of our People has left the area unrecognisable. Most of people moved to either Napier/Hastings or Wairoa in search of employment or following family.

Today we have 180 households in the Pahauwera Catchment (Est under 1000 people), the average household income is \$17,500 p.a. The Average household income for those of Pahauwera living outside of Pahauwera is \$23,000 p.a

Unemployment or Low income jobs seem to be systematic for our people both within the iwi and those that have moved to the towns. Somewhere along the line some Maori as a race have lost their way. We are now seeing generations of

unemployed families, Generations of unskilled labourers, Generations of families stricken with Health issues, generations of child poverty and violence and gang culture. Pahauwera is not immune to this trend and in some areas we would rank highly.

“One of the major causes of child poverty is the relative lack of jobs for parents who have limited educational qualifications, skills or work experience”

(Working Paper no 12: Expert advisory group on solutions to child poverty, pg 2, pt 9)

For me the root of some , if not most of these issues is education and employment. The Ngati Pahauwera Development Trust have a vision to increase the household income by 50%. On current figures this will take the range from \$35,000 for those residing in the Iwi and \$46,000 for those that are living outside the area.

“According to Statistics New Zealand, the Average household income for New Zealand rose by 11.8% to \$84,462”

To do this we need to create jobs within the Iwi, jobs that have a career path and offer opportunity to upskill and personal development in an effort to breaking the cycle that I believe we are currently in.

Amidst all this doom gloom about how we are not succeeding as a people, we do have a strong heart, we are passionate about our Turangawaewae and we do have some highly motivated members of the community that have a vision for self-sufficiency for our people, and I am one of those !

The Purpose of this report is to focus on what the Social effect of having high density employment, like Horticulture will bring to the region.

This report will give you a back story to Ngati Pahauwera, ***before we go forward we need to know where we come from*** to understand why some things are how they are.

This report is not about how I plan to introduce a Multi-Million dollar Horticultural industry into Ngati Pahauwera, giving full time employment for up to 100 people, 10 months part time employment for approximately 50 people and seasonal employment for up to 300 people at its peak, this report is more about ‘why’ do we need to do it and not the ‘How’. We need to “decentralise” our people back to their homelands, But bring them back to what ? and what will the Social impact be on a community who currently have an average

household income that is insufficient for the needs of a modern family in New Zealand.

It is obvious that land planted with Horticultural crops (In particular Fruit trees) requires more FTE's (Full time Employees) than a traditional Farm will and this is the basis for this report.

Methodology

This Project has used a mix of methodological resources including literature review work, Case study research and Interviews.

Case Study Methodology

For this Project there are 2 distinct case studies. These case studies are pertaining to two unique Maori Horticulture entities being Wakatu incorporation and The Ngai Tukairangi Trust. Each case Study is presented in an independent Chapter assembling information into the theme of the research question.

This case study process is applied as a form of qualitative research in that the information from which it is based is subjective by nature.

Ngati Pahauwera Grievances

The nature of Ngati Pahauwera's grievances are reflected in the "acknowledgements and apology" section of the Deed of Settlement. (2) In the deed, the government acknowledges that it breached the 1840 Treaty of Waitangi and its principles (created in 1987) by failing to ensure that Ngati Pahauwera were able to reserve sites, by not providing leasing as an alternative to purchase, by ignoring ambiguity in the 1851 deed about the precise boundaries, by paying a low price for the Mohaka block, by not ensuring that Ngati Pahauwera would receive the full, ongoing benefits from European settlement, by failing to provide the tribe with protection against the known risk of attack in 1869, when Te Kooti's fighters killed 56 Ngati Pahauwera and seven Europeans, and by failing to provide more than minimal assistance to help Ngati Pahauwera recover after the attack, by confiscating of land in the Mohaka-Waikare district, by failing to provide a corporate title option before title to all of Ngati Pahauwera lands, except three blocks, had been awarded to individuals, by implementing native land laws that made land more susceptible to partition, fragmentation, and alienation, and more.

In other words, the government has taken responsibility for all ills that befell Ngati Pahauwera from 1851 to 1990.

The deed describes how Paora Rerepu and 296 of his people sold the 87,500-acre Mohaka Block in June 1851 for £800 payable over four years. By April 1855, the government had paid the \$200 deposit and two further instalments of £300, a couple of small areas within the Mohaka block had been on-sold to settlers for 10 shillings (or 120 pence) per acre. The £800 Ngati Pahauwera received for the entire block was approximately 2.25 pence per acre.

Thereafter, the price hitherto agreed upon by a willing buyer and willing seller, became a point of contention. Presumably, nobody explained to Ngati Pahauwera how demand increases the price of land, or how the government monopoly on sales of Māori land, agreed to in article two of the Treaty of Waitangi, distorted prices, or the fact that once land has been sold it has gone forever to a new owner.

Nevertheless, Rerepu continued selling land. In 1859, Rerepu and 14 others sold the 10,000-acre coastal Moeangiangi block for £300, or seven pence per acre.

This transaction was later the subject of a complaint to the Hawke's Bay Native Land Alienation Commission, also known as the Repudiation Movement. In 1864, the government paid £1250 (about one shilling per acre) for the 21,000-acre Waihua Block. In 1866, Rerepu and 13 others sold the 4470-acre Otumatahi Block for £400.

The 1865 Native Lands Act created the Native Land Court that changed traditional communal land-holding into individual title, to make the sales and purchases of Maori land less fraught. The court was required to name no more than 10 owners, regardless of the size of a block. All other tribal members who may have been owners were effectively dispossessed. (3)

In 1868, Rerepu took the Waihua, Waipapa, Mohaka, Whareraurakau and Pihanui 2 blocks to the Native Land Court, which awarded the Waihua 1 and 2, Waipapa, Mohaka and Whareraurakau blocks to 10 owners each. It registered 121 individuals as having interests in the Mohaka block, but for the other three blocks registered the names of clans rather than individuals.

An 1899 petition sought an inquiry to determine whether all payments for the block had been made, and in 1925, the tribe petitioned the government on the adequacy of the purchase price, the lack of reserves, and 17 minors being signatories to the deed.

The deed blames native land laws, in particular the awarding of land to individual Ngati Pahauwera rather than to the tribe or clans, for making those lands more susceptible to partition, fragmentation, and alienation. Rather than blaming the government, the claimants should look at the actions of their own forebears, especially Paora Rerepu, for dispossessing them of their lands in return for short-term gain.

The deed points the finger at the government of the day for failing to protect the tribe from the known threat of attack from Te Kooti. By the end of 1868, the government had hired numerous Ngati Pahauwera fighters to help search for guerrilla fighter Te Kooti, who, with 163 men, 64 women, and 71 children, had escaped from imprisonment on the Chatham Islands. In April 1869 Te Kooti's forces attacked Ngati Pahauwera pā and kainga on the lower part of the Mohaka River valley and European settlers on the southern bank of the river. At least 56

Ngati Pahauwera men, women and children were killed, as were seven Europeans. Others were wounded or taken prisoner. All the crops in the settlement were reportedly destroyed, and large quantities of supplies, livestock and other property were stolen. A prized ammunition dump buried under a whare exploded in a spectacular blast seen from Napier.

The economic development of the northern Hawke's Bay region was disrupted as many settlers abandoned the area and trade stagnated. Ngati Pahauwera received little assistance from the government and like other civilians received no compensation for their losses.

Because the Waitangi Tribunal is empowered to report solely on Maori grievances back to 1840, grievances caused by Maori or inflicted upon non-Maori are beyond its scope. Therefore, the actions of Te Kooti and his followers remain beyond reproach and the killing of seven non-Maori settlers in Mohaka, mainly the Lavin family, is beyond compensation.

Fighting between government forces and Pai Marire in the Napier area, in October 1866, meant all Maori land between the Waikare and Esk rivers was confiscated in January 1867, including lands in which Ngati Pahauwera held interests. An agreement between the government and some Maori about the return of land was signed in May 1868, but never implemented.

Central to Ngati Pahauwera is the Mohaka river. The Mohaka river is personified and glorified in many ways in the oral traditions of the Pahauwera people, in chants in waiata in whakatauki and in other ways

The Treaty Settlement

Below is the transcript from Pita Sharples moving that the Ngati Pahauwera Claims bill be read for a third time. Minister Sharples commends the actions and hard work from the Iwi and the Crown.

Thursday, 29 March 2012, 5:40 pm

Speech: New Zealand Government

Ngati Pahauwera Treaty Claims Settlement Bill

‘Mr Speaker, I move that the Ngati Pāhauwera Treaty Claims Settlement Bill be now read a third time.

Although I was unable to participate in the policy decisions about the Ngati Pahauwera settlement, due to a declared conflict of interest, it is with great pleasure that I stand to speak today in this third reading of the bill.

I stand to acknowledge the children of Tamatea Arikinui mai Tawhiti, Tureia, Te Huki, Puruaute. I pay tribute to those who have travelled from the brow of the sacred mountain, Tawhiwhirangi, from the ancestral waters of Mohaka.

Mr Speaker I also pay tribute to those who for years also travelled from the lands of our tipuna Te Kahu O Te Rangi bearing the grievances and aspirations of Ngati Pahauwera. Those who have passed, live on in our history, live on in our people and importantly today, live on in New Zealand law. I remember today, Wikitoria Hapeta, Aerial Aranui, Te Awhi Winiata, Raymond Joe, Charlie Hirini, George Hawkins, Reay Paku and Tom Gemmell.

Tangitu ki te moana

Maungaharuru ki uta

Mohaka te awa

Ko Ngati Pahauwera te iwi

Mr Speaker.

This whakatauki describes the essence of Ngati Pahauwera from the mountains

to the sea, from the river to the iwi. Maungaharuru forest lands providing food and resources. Tangitu, our coastal territory and fisheries. The Mohaka River's spiritual, cultural and economic value to the people of Pahauwera is immeasurable.'

Te tapu o Irakewa.
Mohaka Tomairangi.
Mohaka te Waiora.
Made sacred by Irakewa.
Mohaka the unifier.
Mohaka the life giver.

Mr Speaker the people of Pahauwera comprise a confederation of hapu centred around Mohaka on the Eastern Coast of Te Ika A Maui. Ngati Pahauwera stretches from the Ohinepaka Stream south of Wairoa to the Waikari River and inland to the Maungaharuru Ranges and north to the Waiau River.

In 1994, the Māori Land Court appointed eight people to represent Ngati Pahauwera under section 30 of Te Ture Whenua Māori Act 1993 for the prosecution and settlement of the Ngati Pahauwera Treaty claims against the Crown. On 8 May 2008, the Crown and the section 30 representatives signed Terms of Negotiation in Wellington. On 30 September 2008, the Crown and Ngati Pahauwera signed an agreement in principle which covered the foreshore and seabed interests of Ngati Pahauwera as well as their historical Treaty claims.

On 5 November 2010, Ngati Pahauwera presented a Deed of Settlement detailing the historical Treaty settlements aspects of this Agreement to their people. The Deed received overwhelming support from the Ngati Pahauwera people, and was ratified and signed on 17 December 2010 at Mohaka.

Ngati Pahawuera was represented in their negotiations by the trustees of the Ngati Pahawuera Development Trust, which took over responsibility from the section 30 representatives. The final reading of this Bill marks the fruition of many years of hard work. I would like to commend in particular the current and former trustees of the Ngati Pahauwera Development Trust – Toro Waaka, Kuki Green, Charles Lambert, Gerald Aranui, Sissiel Henderson, Arthur Gemmell, Tureiti Moxon, and Tania Hodges – for all of their hard work and diligence, which has resulted in a very strong settlement. Ngati Pahauwera walked a long path to reach this point and can be proud of what they have negotiated.

I am pleased the settlement acknowledges Ngati Pahauwera's relationship with their whenua, as well as their relationship with their awa and moana.

I believe this settlement will support the healing of the relationship between Ngati Pahauwera and the Crown. I hope that the apology, which forms part of the settlement, will also assist with this healing. Ngati Pahauwera acknowledge that the Crown's apology represents its commitment to build a positive relationship with Ngati Pahauwera and to honour its obligations under the Treaty, for the good of this and future generations.

The settlement will be a key step in allowing the iwi to move forward economically and culturally. The \$20 million financial redress will provide Ngati Pahauwera with an ability to focus on and develop their future. Today we are celebrating the beginning of a new relationship between the Crown and Ngati Pahauwera. Ngati Pahauwera is demonstrating a spirit of co-operation and generosity in the relationship, by gifting back to all people of New Zealand much of Te Heru o Tūreia.

I hope that the Crown is a worthy partner in this new relationship. I also hope that the people of Ngati Pahauwera benefit from an ongoing relationship between the Crown and Ngati Pahauwera as Treaty partners. I am pleased and honoured to be here today to mark this momentous occasion, and support the final reading of this Bill.

Ko Tawhirirangi te maunga
Ko Mohaka te awa
Ko Kahu-o-te-Rangi te tangata
Ko Ngati Pahauwera te iwi

I commend this bill to the House.



History of Māori Land

NGATA AND HIS INFLUENCE 1890's-1930's

From the 1890's a new generation of Māori leaders began to emerge. People such as James Carroll, Apirana Ngata, Te Rangihira (Peter Buck) and Maui Pomare were all equally at ease with Maori or Pakeha people and with both Languages. They were well educated in the European system, and were able to move between the two worlds.³⁰ In 1907, Chief Justice Sir Robert Stout and Apirana Ngata were appointed to investigate the best methods for bringing unoccupied and unimproved Māori land into production. This became known as the Stout- Ngata commission. Stout and Ngata saw an urgent need for Government assistance to be provided for Māori in order that they may develop their own land. Government initiatives and assistance had been available for some time due to the establishment of the department of Agriculture in 1891 and the advances to settlers act 1894. However, these were generally for the benefit of individual owners, and invariably not of use to Māori who held land in communal ownership. The Crown continued to purchase land for such reasons as providing land settlement for returning servicemen from WW1. Māori often continued to sell land as they generally lacked access to capital and technological skills to develop the land themselves.³¹

After becoming Minister of Māori Affairs in 1928, Ngata began initiating and implementing land development schemes for Māori. Ngata saw the consolidation, corporate ; [] management, and development of Māori lands as the solution to providing a working economic base for Maori. He sought to make Maori rural communities economically viable. The purpose of the legislation was to promote the 'better settlement and more effective utilisation of Native land or land owned or occupied by Natives, and the encouragement of Natives in the promotion of Agricultural pursuits and of efforts and industry of self-help'. However in the mid 1930s the administration of the scheme was centralised to the Native Department, and successive governments moved the emphasis away from rural Maori towards efficient use of Maori land for national good. Another significant obstacle was that there was just not enough suitable land left in Maori hands to provide reasonable prosperity. Increasingly Maori migrated to towns and cities which allowed for the better possibility of good housing, well paid jobs and other opportunities, rather than continuing to struggle on marginal farms.³²

Urbanisation

Māori and Pakeha societies essentially lived and worked in separately located communities until the Maori Urban Migration after the Second World War brought them Closer together.³³ This urban Migration was stimulated by the situation for Maori in the Depression years of the 1930's. Maori were often the first to lose work and were paid lower than Pakeha until the Labour Government rectified the situation in 1936³⁴. There were many reasons for urban migration, both of an economic and social nature. Urban migration also often meant superior housing, full time employment and a potentially more stimulating environment.³⁵ In 1956, nearly two-thirds of Māori lived in Rural areas; by 2006, 84.4 % of Māori lived in Urban areas³⁶.

The Government's Hunn Report (1961) highlighted some of the issues facing Maori moving to urban areas. The report identified a "Statistic Blackout" of Maori in higher levels of education. This lack of educational achievement meant that Māori migrants to cities predominantly worked in low skill occupations such as road maintenance, factory work, freezing works, transport and building trades³⁷. The strong representation of Maori in these areas of work made them vulnerable to changes in the economy in the 1980's

30 Sinclair Keith (1991b).p27

31 Mohaka Ki Ahuriri report (2004) p449-460

32 Ibid p473-7

33 Ibid p642

34 Ibid p659

35 Ibid p 659-661

36 Ibid www.stats.govt.nz. Quick stats about Maori Census 2006

Walker, Ranginui (2004a) p269

Māori – Born Horticulturalists

The first Māori immigrants, who came from much warmer *climes*, were forced to adapt their horticultural methods quickly in order to survive. Kumara, in particular, required a long, warm season, making it a marginal crop in Te Tau Ihu. Māori developed a taste for local fern root to supplement their carbohydrate requirements, and learned to modify soils for the safe and most efficient production of kumara and other crops.

Early tribes, like Waitaha and Rapuwai, established large cultivations which can still be identified. Many gardens, positioned to exploit the best possible aspect for sunlight and shelter, have been found in the Marlborough Sounds. The natural soil fertility of these sites has often been enhanced – in both structure and chemical composition – through the addition of vegetable matter, wood ash, sand and fine gravel. The remains of other features, like elaborate terracing, stone walling and pathways, are still quite clear at Titirangi on the southern coast of Te Moana Raukawa (Cook Strait).

On the Waimea Plains near Nelson, more than 400 hectares of soils have been altered by the addition of enormous quantities of wood ash and hundreds of cubic metres of sand and gravel. Large borrow pits up to two metres deep, from which the gardeners had made very selective extraction of gravel sizes, can be clearly seen today. Organic materials found in one of these pits have been radio-carbon dated at between 1460 and 1650 AD, and shells found at the occupation site near Appleby School have similar dates, although the ‘...*Appleby site was sitting on garden soils*’,¹ implying that the gardens themselves are even older.

These ancient Māori garden sites have long been recognised as the most fertile soils on the Waimea Plains. Even after sixty years of European cultivation, farmers in the 1920s who were situated on the ‘Māori soils’, required only a fraction of the added phosphate, potash and lime needed on the neighbouring ‘natural’ soils. The enhanced fertility is accounted for, not just by the burning off of the original forest which had been growing on these lands, but by generations of repeated ash deposits obtained by burning ‘imported’ timber – driftwood from the nearby Waimea River and Estuary and from the forests growing on the adjacent river flats and on the Moutere Hills, some one to two kilometres distant.

It is because of the added gravels, that the soils of these old Waitaha gardens also drain much more freely and, being almost black, the heat absorption is much greater. The predominance of large flat stones in the upper soil layers

indicates that the gardeners placed a stone mulch around the crops to further enhance absorption of solar heat during the day, for slow release during the cool nights. All of these factors combined to enable ancestral Māori to grow to maturity crops, such as kumara, for which the local growing season was otherwise too short and the climate too temperate.

With the arrival of whalers in Marlborough, and colonial settlers in Nelson, Maori quickly adapted their horticultural skills and gardens to exploit new markets for potatoes, corn and other introduced crops.

Why Horticulture?

The horticulture industry continues to grow. It is a remarkable achievement that exports have more than doubled since Fresh Facts was first published in 1999. Total horticultural exports are now close to \$4 billion, and total produce value exceeds \$7 billion.

Wine continues to be our most valuable horticulture export, returning \$1.3 billion, and apple exports have exceeded \$500 million for the first time. In addition to the success of our crops, record numbers are now being trained in horticultural fields with the Primary Industries Training Organisation reporting a 58% increase in trainees to 7,449 in 2014 – and investment in horticulture is now calculated to be in excess of \$36.5 billion.

If we look at the productivity of our horticultural land, the value of our horticultural exports (\$3.9 billion from 123,000 hectares) equates to more than three times the comparative return achieved by dairy merchandise exports (\$16.9 billion from 1.7 million hectares).

New Zealand's success continues to be the result of hard work and a keen understanding of our markets. Science and innovation are employed throughout the value chain, allowing our sectors to deliver produce that commands a premium, meets increasingly stringent phytosanitary and sustainability requirements, and offers safe, convenient, high quality food for discerning consumers.

Peter Landon-Lane

CEO, Plant & Food Research

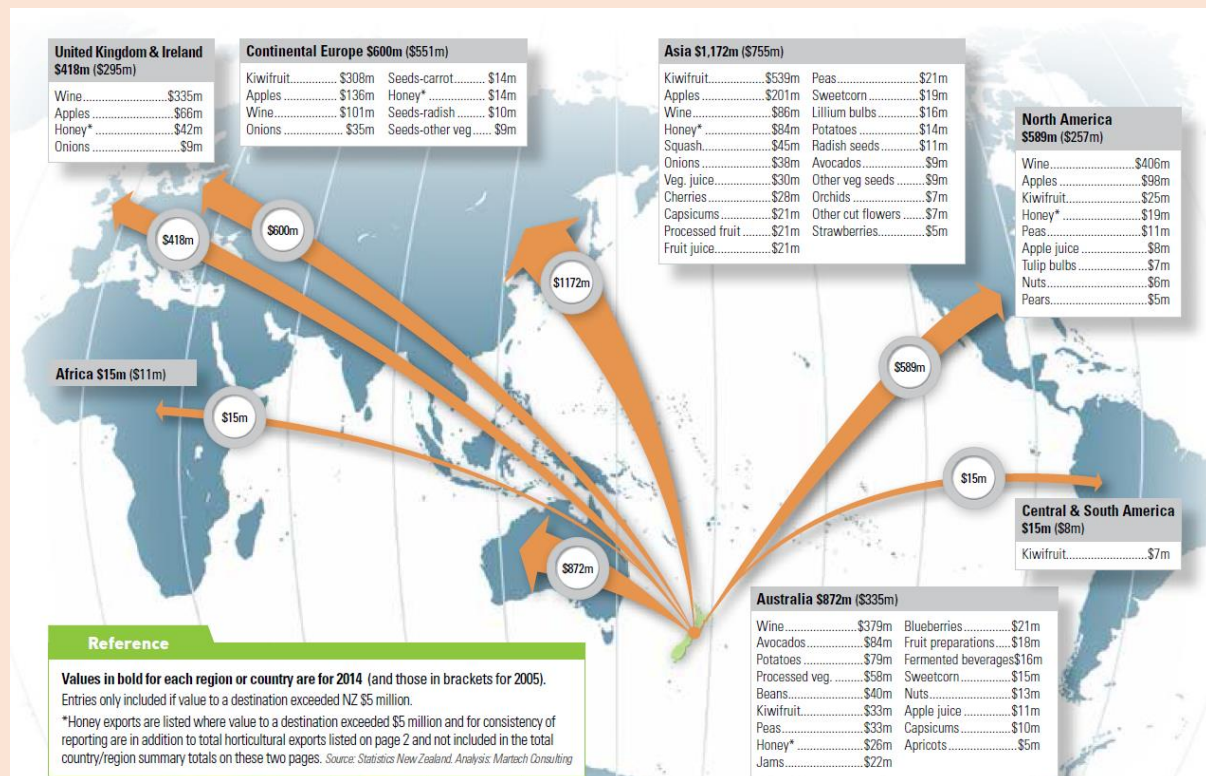
Fresh Facts, New Zealand Horticulture 2014

Trends

- In 2014 New Zealand fruit and vegetable exports to five markets exceeded \$300m (fob) value: Australia, Japan, UK and Ireland, Continental Europe and North America.
- These five export markets accounted for over \$2.45 billion (63%) of New Zealand's total horticultural exports in 2014.
- Of the further 10 countries to which New Zealand exported more than \$50 million of horticultural produce in 2014, seven are in Asia.
- The diversity of horticultural products exported is evident in the 21 product groups, each between \$5m and \$540m, exported to Asia; and to Australia 17 categories between \$5m and \$380m (fob) value.

Source: Statistics New Zealand

NZ Export Destinations



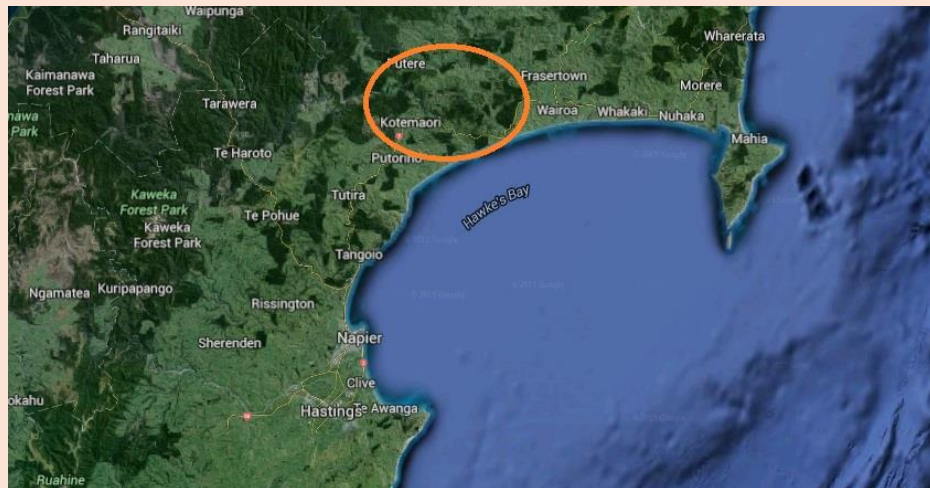
Export destinations for New Zealand horticultural products – trends since 2005 (\$ million, fob)

- Fruit, vegetables and flowers were exported to 124 countries in 2014. In 2005 New Zealand horticultural produce was exported to 108 countries.

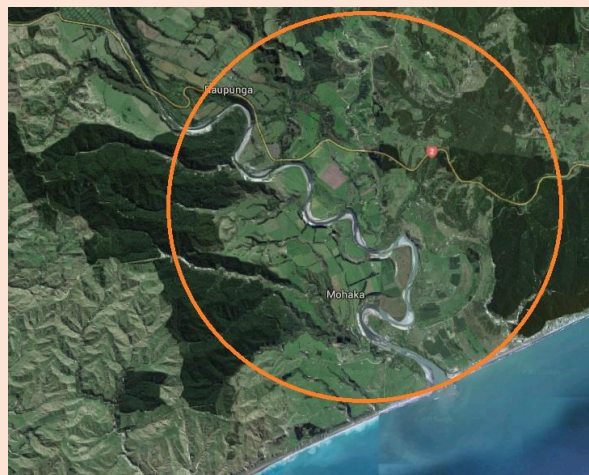
Exports to 28 countries exceeded \$10 million (fob) in 2014, up from 19 countries in 2005

Why Horticulture in Pahauwera ?

The people of Pahauwera comprise a confederation of hapu centred around Mohaka on the Eastern Coast of the North Island. Ngati Pahauwera stretches from the Ohinepaka Stream south of Wairoa to the Waikari River and inland to the Maungaharuru Ranges and north to the Waiau River.



The coastal climate of the Ngati Pahauwera has for generations been identified as fertile lands with the favourable climatic attributes for Growing both Horticultural and Agricultural crops.



I have identified suitable growing areas within Pahauwera including, but not exclusive to the Table lands close to the Mouth of the Mohaka River.

Through historical observations I have identified 3 key fruit types that I believe would benefit from the Pahauwera climatic conditions. Stone fruit , namely Nectarines, Peaches Apricots for the New Zealand Domestic Market and Apples and Kiwifruit, mainly for the Export Markets.

Farming vs Orchards

New Zealand Dairy Industry (2013-14)

144 Ha	Average Farm Size (Hectares)
2.9 FTE/Farm	Full time equivalent per farm
0.02 FTE/Ha	Full time equivalent per Ha

New Zealand Sheep and Beef Industry (2013-14)

634 Ha	Average Farm Size (Hectares)
1.70 FTE/Farm	Full time equivalent per farm
0.003 FTE/Ha	Full time equivalent per Ha

<http://www.beeflambnz.com/information/on-farm-data-and-industry-production/sheep-beef-farm-survey/>

Data Centre at DairyNZ/LIC

New Zealand Horticulture 2015

28 Ha	Average Ha per Grower
15.68 FTE/Orchard	Full time equivalent per Orchard
0.56 FTE/ha	Full time equivalent per Ha

Courtesy Pipfruit New Zealand –Long Term Crop Estimate October 2015

Social Issues for Māori

Child Poverty

Within Ngati Pahauwera I believe we have an issue with Child Poverty, much of this will stem from the limited employment opportunities within the area that are holding our people back.

A series of working papers were produced by the Expert Advisory group on Solutions on child Poverty. I have taken some extracts from working Paper no 12 , highlighting how unemployment or poor paying jobs contribute to child poverty

This paper was prepared to provide the EAG with an overview of how employment, training and skills development can support reductions in child poverty. If we want all families to have adequate family income to meet basic needs of their children, we need to consider the components of poor children's family income and what options are available to increase these. One aspect of this involves looking at the circumstances where it is possible to increase family income, and how this might be best achieved and supported.

(Working Paper no 12:Expert advisory group on solutions to child poverty pg 1, pt 1)

At a very basic level, low family income is the main factor contributing to child poverty. The direct reasons why family income may be low include: family members are not in work enough hours or not at a pay rate adequate to support the family.

(Working Paper no 12:Expert advisory group on solutions to child poverty pg 1,pt 5)

As many as 270,000 New Zealand children are living in poverty (Perry, 2012). Many of these are in families where there is no income earned through employment. Over half of these children are in sole parent families. Sole parent families not only have fewer adults to potentially contribute, but also face additional challenges of balancing child-care needs against employment.

(Working Paper no 12:Expert advisory group on solutions to child poverty pg 2 , pt 8)

One of the major causes of child poverty is the relative lack of jobs for parents who have limited educational qualifications, skills or work experience. Compounding this is the fact that most low-skilled jobs are relatively poorly paid. There are various reasons for the limited job opportunities facing some workers, not least the global economic difficulties of recent years, changes in

the labour market (nationally and regionally), and the many challenges that some people face in acquiring new skills (eg. due to the costs and availability of relevant training programmes). A crucial part of the solution to child poverty lies in building a vibrant, high-skill, high-wage economy. At the same time, the evidence suggests that more effective policies to get people into jobs can work under a wide variety of labour market conditions (Card *et al.* 2010).

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 2, pt 9)

Work needs to pay parents enough to encourage them to take up paid employment (eg. net income after taxes and transfers and accounting for the additional costs of working, including child care costs, makes them better off). Effective policy means ensuring various programmes work together to support parents' transition into work, and that all the gains from increased income are not simply abated away in reduced social assistance.

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 3)

Getting more parents into employment.

There are over 184,000 children in families with no adult in paid work, and a further 64,000 in households with only part-time work. This means that as many as one in four New Zealand children live in families where there is no adult in full-time work. These rates for children in families with no work are high by OECD and EU standards (Perry, 2012).

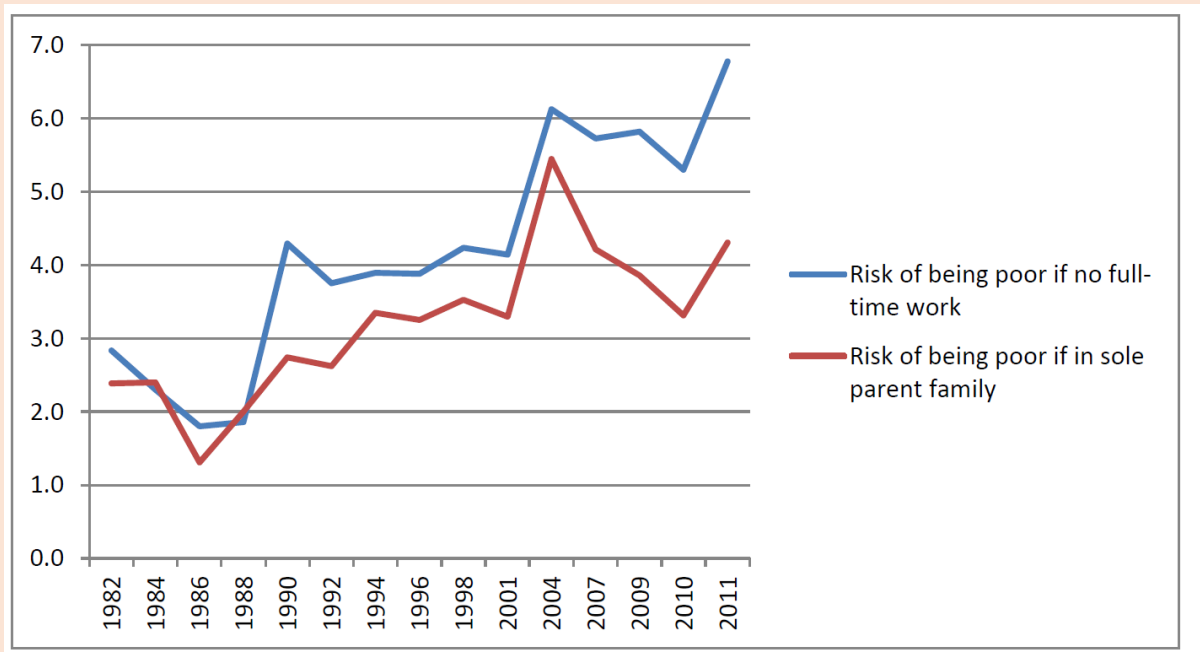
(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4,pt 12)

Having parents without paid work is associated with child poverty. In nearly all OECD countries during the early 2000s, including New Zealand, child poverty rates were significantly higher for jobless families than for families with at least one parent in paid work. On average across OECD countries, around one-third of poor families with children have no employment income, compared with only six percent of all families with children. In other words, poor families with children are over five times more likely not to have a parent in work. The New Zealand statistics are above average at nine percent of all families with children and 40 percent of poor families with children having no parent in work. (Adema and Whiteford 2007, p. 20).

14. New Zealand data over time show a high and increasing risk for children being poor if parents are without full-time work, compared with the risks of poverty if parents are in full-time work (Figure 1).

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4, pt 13)

Figure 1: Risks of child poverty rates by parental full-time employment status and by sole parent family status



Note: 60 percent of median income after housing costs, constant value; comparison groups are at least one full-time worker and two parent family (Perry, 2012).

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4, dia 1)

Children in a sole parent family are more likely to be poor than children in a two parent family, (53 percent and 16 percent respectively). On top of this, New Zealand has higher rates of sole parenthood than the OECD average, and employment rates of sole parents are also low compared with most other OECD countries (OECD, 2011).

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 15)

To reduce the number of children who are living in poverty, we need a strong systemic focus on ensuring parents have good, long-term jobs. The evidence suggests that finding sustainable employment is a primary route through which parents can move their children out of poverty (Ballantyne *et al.* 2004).

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 16)

Historically, the allocation of the of active employment resources by Work and Incomenhas not focused on getting *parents* into jobs which move their children out of poverty. In particular, there has been little focus on ensuring positive employment transitions, from a parent *and* a child perspective, for sole parents.

(Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 17)

Relationship between unemployment and crime

It's obviously not a coincidence, Crime is a symptom of a society in distress, the root cause is unemployment – causing poverty, disconnection from society, and a lack of positive ways to spend one's time. When we look at which offences are increasing, its burglary, car conversion, drugs offences, and violence (although hopefully that's still due to higher reporting, nearly all the increase is recorded violence in homes).

“In some parts of our country, whether it's the Far North or East Coast, you've got kids who have never seen Mum or Dad, or even Granddad or Grandma, go to work and you get long term demoralisation set in in those communities and that's where crime's rife, the drug take is rife, alcoholism's rife, the ill health-overweight's rife and you have trouble just getting people off their backsides and into a job because of the problems.”

Rt Hon Helen Clark, Prime Minister 2004, Radio Interview with Michael Laws.

Police Apprehensions and Prosecutions

Maori occupy a disproportionate part in the police apprehensions and prosecutions:

- From 1997 to 2006, Māori apprehensions increased by 10%, whereas total apprehensions only increased by 4%. There was a much larger increase in apprehensions for violent offences overall, and this was particularly marked for Māori (an increase of 40%).
- Although Māori are 13% of the New Zealand Population, in 2006 they accounted for 43% of all police apprehensions and 51 % of the Prison population.

Ethnicity of prisoners						
By sex						
Ethnicity	Female		Male		Total	
	Number	Percent	Number	Percent	Number	Percent
Māori	304	58	4,087	51	4,391	51
European	163	31	2,672	33	2,835	33

Pacific peoples	24	5	982	12	1,006	12
Asian	17	3	218	3	235	3
Other/unknown	19	4	132	2	151	2
Total	527	100	8,091	100	8,618	100

June 2012

http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/society/crime/corrections.aspx

Population Projections

All indications are that the demographic changes will exacerbate the issues of the Māori over –representation.

The number of Māori in offending prone age groups (15-29 years) is projected to increase by 28% between 2001 and 2021. The number of Europeans in this age group is expected to decline by 0.5%

Strategic Policy brief March 2009, Ministry of Justice

“Young Māori who are disengaged are more likely to move onto a benefit which reduces their likelihood of leading a productive life.”

Nania Mahuta **Thursday, 8 May 2014, 4:49 pm**

Press Release: New Zealand Labour Party

Relationship between unemployment and Health

Income

- Income is the single most important modifiable determinant of health and is strongly related to health and well-being.
- The link between poverty and ill health is clear; with few exceptions, the financially worst-off experience the highest rates of illness and premature death.
- Greater income inequality within society may also be associated with increased overall mortality.
- Both poverty and income inequalities increased in New Zealand over the past decade.

Employment

- The main factor determining adequate income is participation in paid employment, particularly full-time employment.
- Employment also enhances social status and improves self-esteem, provides social contact and a way of participating in community life, and enhances opportunities for regular activity, which all help to enhance individual health and well-being.
- Unemployment is detrimental to both physical and mental health and unemployed people in New Zealand report poorer health status than people who are employed. The Social, Cultural and Economic Determinants of Health in New Zealand: Action to Improve Health ,A Report from the National Health Committee 9
- Māori, Pacific people and young adults have much higher rates of unemployment than the general population.
- In 1986 there were 20,652 children under five years with no parents in the paid workforce. By 1996, there were 53,547 children in this position.

Education

- Education is critical in determining people's social and economic position and thus their health.
- A low level of education is associated with poor health status.
- In 1996, 39% of Māori and 27% of Pacific students left school with no qualification, compared with 14% of students from all other ethnic groups.
- Around 20% of New Zealand adults have very poor literacy skills.

- Over 60% of Māori, Pacific people and members of other minority ethnic groups are functioning below the level of literacy required to effectively meet the demands of everyday life.

Housing

- Overcrowding, damp and cold have direct detrimental effects on physical and mental health.
- There was an increase in serious housing need in New Zealand between the late 1980s and mid-1990s.
- High housing costs leave less money for other budget items essential to good health including nutritious food, education, and access to health services.
- Housing rental costs have increased significantly over the last decade in New Zealand and at a much higher rate than other goods and services; this increase reflects in part a move to market rentals for State housing.
- Many families, especially low income families, are now spending a much greater proportion of household income on housing costs than they were a decade ago.
- Increased housing costs and a shortage of rural housing have led to the sharing of accommodation with subsequent overcrowding, as well as people living in substandard 'temporary' accommodation.
- Over recent years, there has also been an increase in hospital admissions from childhood diseases that are known to be associated with overcrowding, including meningococcal disease and respiratory infections.

Extracts from the National Advisory Committee on health and disability (National Health Committee).

Case Study 1

Wakatu Incorporation (Tasman / Marlborough)

History

Wakatu owners are descendants of the chiefs and families of four tribes- Ngati Koata, Ngati Rarua, Ngati Tama and Te Atiawa. Our ancestors travelled from Kawhia and North Taranaki to conquer the region (Te Tau Ihu) between 1828 and 1834.

We settled and held authority (manawhenua) over the Nelson – Motueka-Golden Bay lands at the time of European settlement in 1841. Our iwi were based in the following regions.

- Ngati Koata – Rangitoto (D’Urville Island), Croisilles and Nelson
- Ngati Tama – Whakapuaka and Golden Bay
- Ngati Rarua – Motueka, Golden Bay , Nelson
- Te Atiawa- Motueka, Golden Bay, Nelson

Our Ancestors had large gardens and cultivations from which we supplied goods to the whaling industry in Marlborough, which was at its peak in the 1830s.

Later we became the main providers of food to Nelson settlers.

European Settlement

In 1839 there were approximately 2000 immigrants in New Zealand; by 1852 there were 28000. This was a result of the signing of the Treaty of Waitangi in 1840, which gave British immigrants citizenship and the right to settle in New Zealand .

Our people welcomed European settlement as an opportunity to expand trade. It is unlikely that our ancestors anticipated just how many settlers would pour in and the impact this would have on our way of life.

The New Zealand Company

In London during the early 1840's, the New Zealand Company (NZC) planned for the settlement of a town called Nelson. NZC intended to purchase some 200,000 acres of land from Maori, which it would divide into one thousand lots and sell to intending settlers. Due to its superior harbor the site which Nelson city now occupies was chosen. However, the cultivatable land surrounding the harbor amounted to only 60,000 acres, less than a third required by NZC's plans. Nevertheless, NZC continued with the settlement and secured an undefined area from local Maori for £800. This included Nelson, Waimeha, Motueka, Riuwaka and Whakapuaka.

Māori were weary of ceding vast amounts of valuable land to the Europeans. The NZC agreement included conditions that one-tenth of land purchased for European settlement in Nelson, Motueka and Golden Bay regions would be best set aside exclusively for Māori prosperity. The Maori would also retain their traditional occupation lands, Urupa, (Burial plots) and waahi tapu (sites of cultural significance) separate to the settlement.

Land Alienation

Although the Tenths Reserves policy was well-founded, the actual reserves set aside were far less than what was agreed. Instead of receiving 15,100 acres of the 151,000 sold throughout the region by NZC, only 5100 was set aside as tenths' reserves. Furthermore, Māori occupation lands, urupa and waahi tapu were not excluded from the European settlement as had been agreed. As a result Maori in the Nelson settlement district were left with insufficient land to live on. It has always been our view that 450,000 acres of land was surveyed for the NZ company and that our reserves should have totaled 45,000 acres.

Return to Māori Ownership

In 1974 a commission of Inquiry (the Sheehan Commission) was set up in response to a national outcry over the sale of native reserves to lessees and the loss of more Māori land. As a result the Māori trustees administration of the tenths reserves were revoked. What remained of the Nelson Tenths estate was returned to its owners to decide how they wanted to manage the land. As a result, Wakatu incorporation was formed in 1977 by the descendants of the original owners of the Nelson tenths reserves.

Wakatu took control of 2994 acres of land; the remnants of the Tenth's Reserves and some occupation reserves. However, generations of oppressive legislation meant that the returns on the land remained minimal.

Together with others Wakatu lobbied against the unfair lease regime. New legislation was enacted in 1998 which enabled Māori to set market rents for our own land. However we are still constrained by the term of some leases.

Since 1977, our owners, board and management have worked steadily to improve our land and business. Today Wakatu is an internationally recognised indigenous business of the land and sea. With an asset base valued at over \$260 million, we are the largest private land owner in the Nelson district and one of the largest employer's in the region, contributing significantly to the economic wealth and well-being of the community.

Lands

We were alienated from our land for many generations, but our duty and responsibility as Kaitiaki (Guardians) has endured. Kaitiakitanga (Guardianship) is multifaceted; the first duty is to maintain and care for our land followed by the responsibility to utilise land to provide for our people.

Kaitiakitanga is interconnected with the concept of Rangatiratanga – the right to control and determine our destiny. We recognise that what we are part of is intergenerational, taking with us our history and passing forward our taonga (treasures) for generations to come.

<http://www.wakatu.org/home/wakatu-incorporation/about/fundamentals/history/> October 1st 2015

Kono Horticulture

“With 224 hectares of planted land, our Motueka orchards grow apples, kiwifruit, pears and hops. We are charged with making a sustainable return and ensuring the land is passed to future generations in the best possible condition”.

“We combine this knowledge with world-leading, safe growing programs that exceed international standards for safe production.

This includes the NZ pipfruit integrated fruit production (NZP-IFP), which ensures production methods are sustainable and safe as possible for the environment and human health.

<http://wakatu.org.nz/kono/kono-horticulture/sustainability/>

Kono Philosophy

Kono is an associated business of Wakatu incorporation, a special entity rich in History and at the forefront of Māori enterprise. Based in Nelson,

A Kono is a Basket woven out of Harakeke (New Zealand Flax) and was traditionally used by Māori to serve food in. Using the word 'Kono' represents our desire to provide New Zealand produce to the world whilst being guided by our Maori values.

Sustainable Production

For centuries Māori have been Kaitiaki (Guardians) of the land and seas of Aotearoa/New Zealand. Our practice has always been of great respect for the natural resources, taking only which is needed. We combine this knowledge with the world leading safe growing programmes that exceed international standards for safe production.

Kono Horticulture is committed to:

- Tracing all product back to source
- Growing and selecting Highest quality fruit
- Protecting wildlife and landscape conservations
- Encouraging sustainable practices in our operation by monitoring our use of energy, valuing natural resources and recycling
- Rationalising the use of artificial pesticides, fertilisers ,manures
- Ensuring in all Kono Staff are Treated respectfully

Kono is an exemplary example of what innovation, commitment and Passion for the people can create and is a model that may work within Ngati Pahauwera if managed with the same passion and commitment as shown by the whanau of Wakatu.

Case Study 2

Ngai Tukairangi Trust (Bay of Plenty)

Trust Beginnings

Ngai Tukairangi Trust emerged from pressures associated with impeding urbanisation upon the Matapihi peninsular. A clear goal of our shareholders was to ensure that we retained our land and developed it for our own needs.

Some of the land blocks in Matapihi were part of the Matapihi Ohuki Trust, governed at that time by people such as Bill Ohia, Turirangi Te Kani and Judge Ed Durie. Some of the Matapihi remains within the Matapihi-Ohuki block to this day.

Several other blocks and their trustees opted to either create new trusts and/or amalgamate together.

Ngai Tukairangi Trust was borne from those discussions in the early 1980s. Turirangi Te Kani was one of the driving forces behind its establishment at that time.

The Trust was originally a bare block and was developed under part 24 of the Maori Affairs Act in 1984 when the Department of Maori Affairs supported these initiatives.

The first trustees on the block were Turirangi Te Kani, Mahaki Ellis, Toa Faulkner, Lincoln Smith, Wiparera Te Kani, & Pokai Waiari. Some of these trustees have passed on now; others have resigned.

The first Chairperson was Turirangi Te Kani, then Wiparera Te Kani, then Bill Hiamoe, Mahaki Ellis and now Ratahi Cross.

Core Business

The Ngai Tukairangi Trust core business is horticulture. The Ngai Tukairangi Trust is an industry leader in the production and harvesting of kiwifruit and avocados. Our future aspirations for growth and expansion continue to be associated with horticulture. However, the Trust aims to pursue other business opportunities.

Ngai Tukairangi Trust History

What is now commonly known as Ngai Tukairangi Trust was established in the late 1970's under the Maori Affairs Act 1953.

The Trust was formed from a number of Maori owned land blocks based in Matapihi including:

Puwhariki 2, Te Ngaio 2, Tumatanui 3B2, Tumatanui 3A, Oruamatua 2A2B, Oruamatua 2B2, Otuawahia 1 and Otuawahia 3B.

The original number of shareholders was approximately 200 in 1979 which has grown to over 1470 in 2014.

The owners had a strong desire to remain living and working on ancestral land.

The land was developed with the assistance of the Department of Maori Affairs from 1980 which had a range of crops including maize, sweet corn, prince melons and buttercup squash. In December 1981 the first kiwifruit nursery was established and the first kiwifruit vines planted in 1982.

The Maori Affairs Department and later the Iwi Transition Agency managed the orchard up until 1992. In April of that year the management of the trust was returned to shareholders. Since that time the Trust has employed Trustees and a management team to manage the orchard.

Horticulture

Horticulture is a core aspect of the business operations of the Ngai Tukairangi Trust, and kiwifruit features predominantly in those operations. The total area of kiwifruit is 48 hectares, made up of 26 hectares of green and 22 hectares of gold. Kiwifruit is produced on land that is owned and leased by the Trust.

The main orchard was established in 1980 and the first gold was grafted in 1996.

In the last few years, the orchard has been transitioned too low to medium vigor pruning systems. The Trust is now converting areas of the orchard to strip males, which is a major project.

The Ngai Tukairangi Trust also has 11 hectares of avocados spread across leased and Trust owned property.

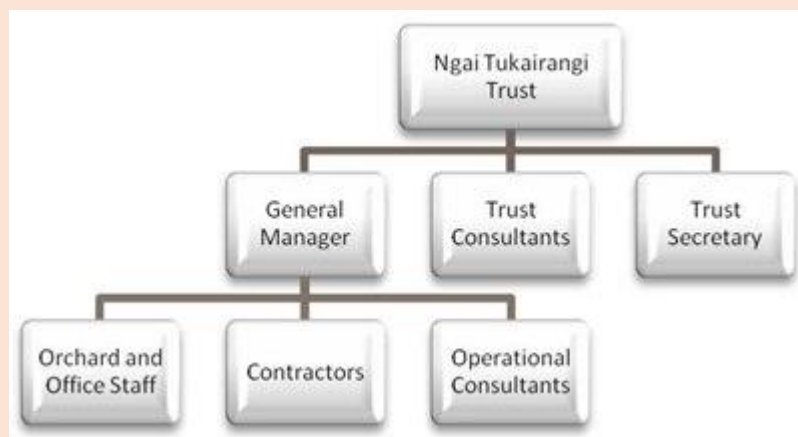
There is currently eight full time staff working on the orchard and four casuals. However, the majority of the vine work is carried out by seasonal contractors.

Once the kiwifruit is harvested from the orchards, it is packed by Te Awanui Hukapak Ltd and the majority of the fruit is marketed internationally by Zespri International. Avocados are also packed by Te Awanui Hukapak Ltd, who directly export the avocados through Fresh Co, and Hukapak Ltd as well.

The Trust is one of the top orchards in the industry. The orchard team is committed to advancing opportunities to expand the orchard operations and improve performance.

Organisation Structure

The diagram below depicts the organisation Structure for the Ngai Tukairangi Trust.



What needs to change?

First and foremost we need to give people a purpose, we need to empower people to help themselves and to put their family first. We have very talented and skill full whanau within our Iwi. We have leaders and we have those that are supportive of leaders. Every member of our community has a roll to play in the successes and the failures.

We need to buck the trend of Child Poverty, Poor Health and wellbeing, crime and low level qualifications.

We need our Tane (Men) to stand up and be good Fathers and Roles Models to their Tamariki (Children). We need to make a new “Norm”. The new Norm needs to be a mix between *“My Dad (or Mum) has gone to work so that I can have a better education and so I can make my own healthy choices for my family when I am an adult”* and *“I am going to chase my dreams at whatever cost so that I can make a difference in this world”*.

Pahauwera is a Gang breeding ground, all Maori families within the Ngati Pahauwera area will have some family connection to a gang, this is a horrific reality of what has become a generational issue. We have children within the Iwi who's career path is to either wear

Blue ...

or

Red...



These children will follow in the footsteps of their Father, older brother or favourite uncle which is understandable. My 2 male role models are my Father and my uncle, it is fortunate for me that they were not Gang members. I am the

exception rather than the rule for my generation , I am part of the changing face of Ngati Pahauwera .

In my opinion employment opportunities', innovative thinking and continued strong leadership will be a catalyst for Change.

What does change look like?

Change looks like you and me, Change is incremental, change will take time , days, weeks , Months , Generations, change needs to happen because we cannot continue on the downward spiral we are currently on as a race ,we cannot be content with mediocre, we need to raise the bar.Currently we need to produce Role models of substance , role models with their only Agenda being to create a safe environment for their Tamariki, a role model that does not need to wear a patch to identify his standing within the community.

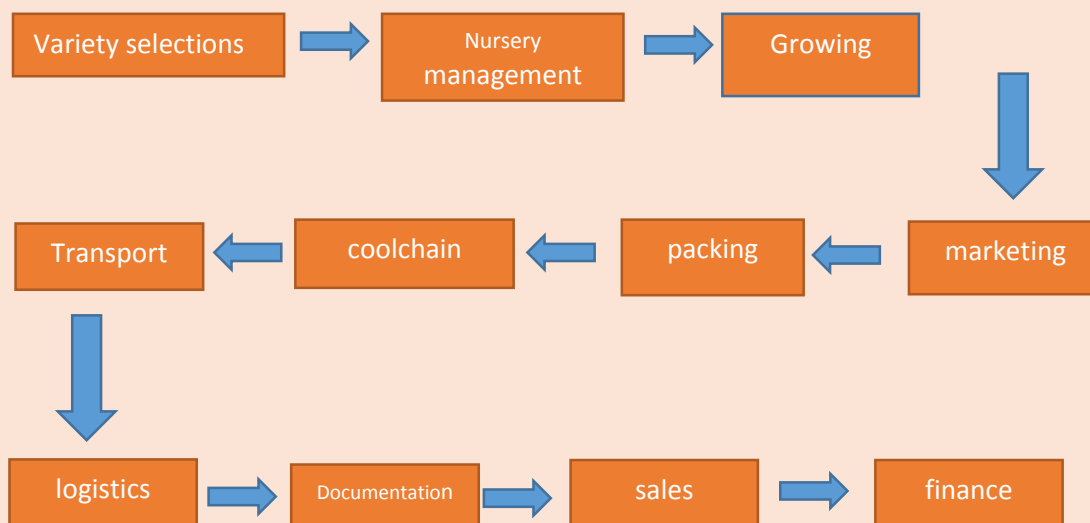
There is no magic wand and we have not found ourselves in the predicament that we are in due to one single event in History. In my opinion our poor report card has come about due to a lack of education, a lack of embracing bi-culturalism and a lack of empathy and understanding and resulting in a lack of opportunity.

The Plan

Step one – Offer employment opportunities

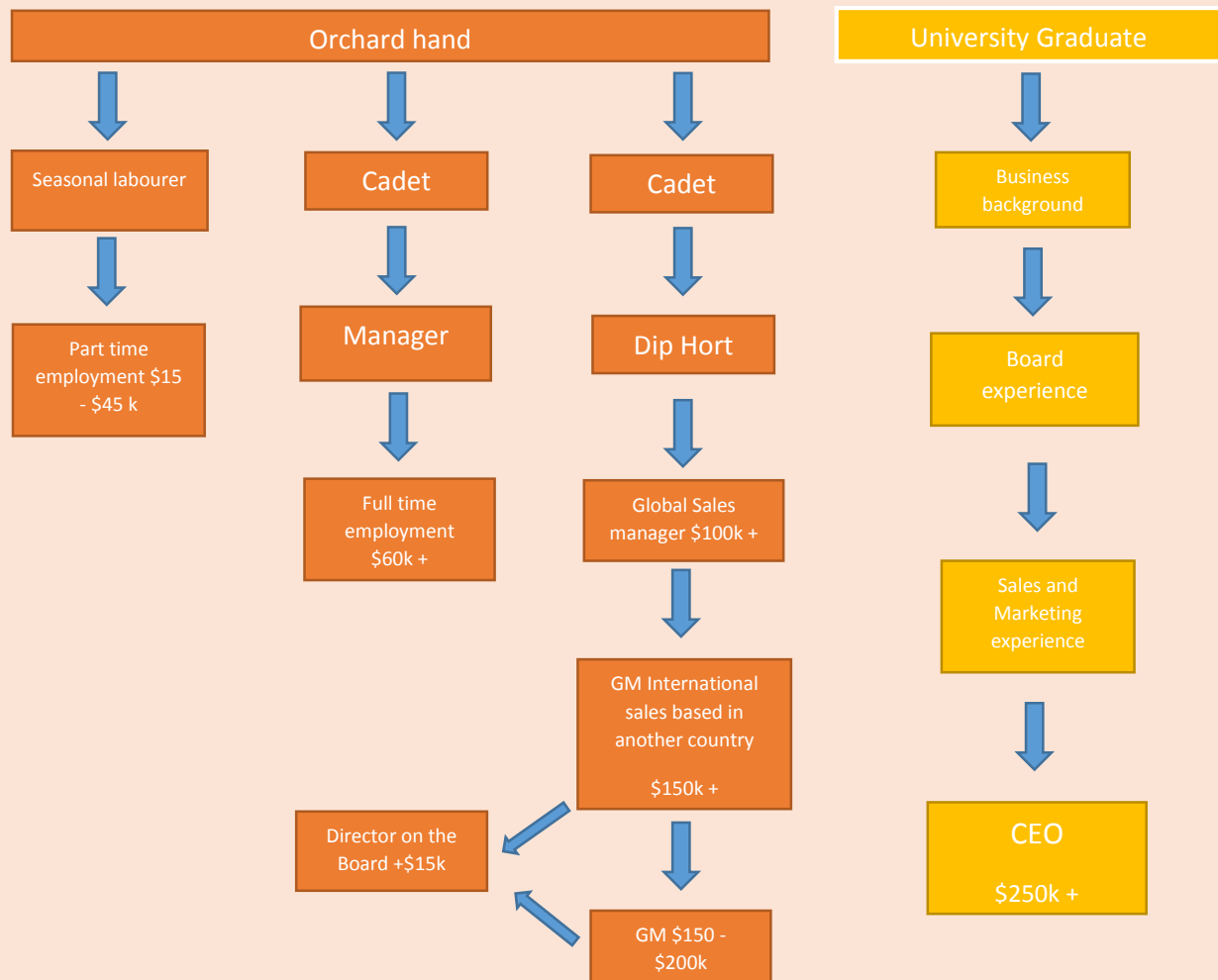
Create a World renowned Horticultural Hub utilising the resources of Ngati Pahauwera, both, natural and Human resources. Employment will be centred around Horticulture but there will also be employment opportunities' within supporting services such as , Transport , Packaging ,Engineers, Contractors ,accommodation , day to day essential supplies, like food and house hold needs.

To establish the Hort Hub we would need the advice from industry experts to guide us with the decision making process. We would need to find out the best areas for specific crops ,crops that suit both international and national consumers. Without going into too much detail my proposal would include as many jobs within the supply chain as possible.



Step two – Offer a career Path , not Just a job.

Create an opportunity for our people to further develop their skills in Horticulture and business. Give appropriate training to those who are showing the potential to be leaders within all areas of the Hort Hub. Utilise the existing Pahauwera Scholarship scheme to help promote Horticulture and other subjects that would benefit our Iwi.



There will also be a requirement for engineers, Mechanics, Fitters and Turners, Carpenters and Electricians.

Step three – lift the standard of living.

With the new found income we need to teach our people how to budget, emphasising the importance of making your money work for you. Further education for the adults.

Finance the children through Schooling and extra curricula activities, go that extra mile to ensure they receive a quality of education that they deserve. Ensure there are health services available to the families and help create a safe environment for the children.

Tangata ako ana i te whare, te turanga ki te marae, tau ana

A person who is taught at home, will stand collected on the Marae.

A child who is given proper values at home and cherished within his family, will not only behave well amongst the family but also within society and throughout his life.

Nga Mihi ,

Tom Keefe

References

- the encyclopaedia of New Zealand <http://www.teara.govt.nz/en/hawkes-bay-places/page-9>
- Statistics New Zealand
- Ministry of Health
- www.ngaitukairangitrust.co.nz
- Fresh Facts, New Zealand Horticulture 2014
- Mōhaka the encyclopedia of New Zealand <http://www.teara.govt.nz/en/hawkes-bay-places/page-9>
- The Prow.Org.Nz 2008
- www.beehive.govt.nz
- Rt Hon Helen Clark, Prime Minister 2004, Radio Interview with Michael Laws
- <http://www.wakatu.org/home/wakatu-incorporation/about/fundamentals/history/>
- <http://wakatu.org.nz/kono/kono-horticulture/sustainability/>
- Kono Horticulture promotional folder , Published 2013
- <http://www.beeflambnz.com/information/on-farm-data-and-industry-production/sheep-beef-farm-survey/>
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 17)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 16)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 12, pt 15)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4, dia 1)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4, pt 13)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 4,pt 12)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 3)
- (Working Paper no 12:Expert advisory group on solutions to child poverty, pg 2, pt 9)
- (Working Paper no 12:Expert advisory group on solutions to child poverty pg 2 , pt 8)
- (Working Paper no 12:Expert advisory group on solutions to child poverty pg 1,pt 5)

- (Working Paper no 12:Expert advisory group on solutions to child poverty pg 1, pt 1)
- Gary Jones ,Pipfruit New Zealand
- Luis McDonnell, Ngati Pahauwera Commercial Development Ltd Chair.
- Sue Pickering , Horticulture New Zealand
- Peter Landon-Lane, CEO, Plant & Food Research –Extract from fresh facts New Zealand .
- Extracts from the National Advisory Committee on health and disability (National Health Committee.
- Data Centre at Dairy NZ/LIC
- Adema and Whiteford 2007, p. 20.
- sinclair Keith .(1991b).p27
- Mohaka Ki Ahuriri report (2004) p449-460
- Ibid p473-7
- Ibid p642
- Ibid p659
- Ibid p 659-661
- Ibid www.stats.govt.nz. Quick stats about Maori.Census 2006
- Walker, Ranginui (2004a) p269
- Pipfruit New Zealand –Long Term Crop Estimate October 2015