



# Pā to Plate

**Pā to Plate: Preliminary Insights**

**Merata Kawharu**

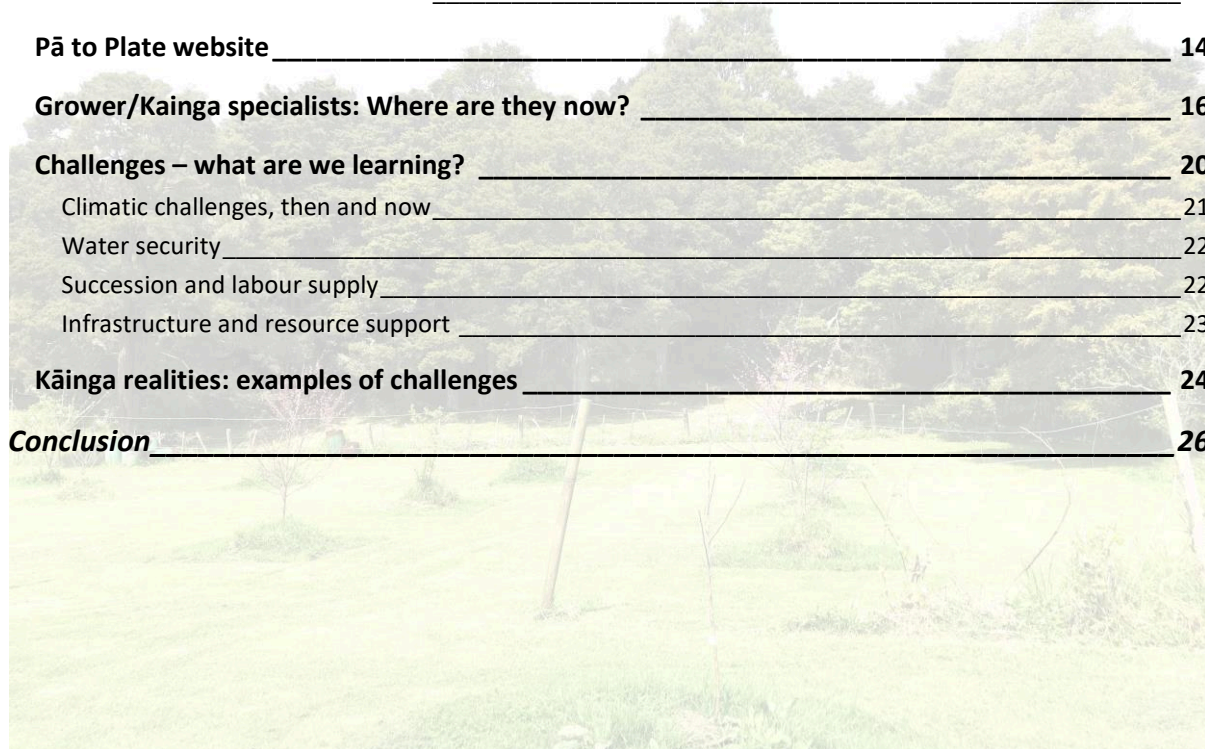
**Paul Tapsell**

**Hirini Tane**

**April 2022**

## TABLE OF CONTENTS

<b>Executive summary: Preliminary insights</b>	<b>3</b>
<b>Introduction</b>	<b>5</b>
<b>Background to the Pā to Plate journey</b>	<b>5</b>
<b>Rohe: Area focus</b>	<b>8</b>
<b>Circular Value Chain</b>	<b>8</b>
<b>Rangatiratanga in Pā to Plate</b>	<b>9</b>
<b>Cornerstone Foci of Pā to Plate</b>	<b>10</b>
1. Local informal foci: ‘feed local whānau first’	10
2. The non-local social enterprise market ‘Plate to Pā’	10
3. The formal commercial market	10
<b>Pā to Plate website</b>	<b>14</b>
<b>Grower/Kainga specialists: Where are they now?</b>	<b>16</b>
<b>Challenges – what are we learning?</b>	<b>20</b>
Climatic challenges, then and now	21
Water security	22
Succession and labour supply	22
Infrastructure and resource support	23
<b>Kāinga realities: examples of challenges</b>	<b>24</b>
<b>Conclusion</b>	<b>26</b>



## *Executive summary: Preliminary insights*

On the basis of this project being part-way through, we offer the following insights:

1. Pā to Plate is reinvigorating marae communities throughout Taitokerau. 'Marae' as a social category encompasses descendants living at ancestral homes, nearby and away.
2. Pā to Plate is centred on growing growers, growing kai, and growing communities.
3. Pā to Plate is about strengthening connections: between kāinga, kai and ancestrally based kōrero.
4. Mahinga kai – gardens – is the centre of marae-based innovation that we are developing. It provides the purpose and focus for communities to feed their people, economically and culturally.
5. Pā to Plate essentially represents a cyclical economy and a whakapapa in economy system.
6. Its success is through the integration of kinship into: the business of gardening, the preparation of kai ready for whānau and markets as well as the integration of kinship into the activities of whānau receiving kai, buying kai and reciprocating with support back to kāinga-based specialists/growers. It works as a network through whakapapa connections between families and marae. In other words, building the economic model is through whakapapa connections. Outside agencies need to recognise and support this.
7. In simple terms, Pā to Plate is a true tangata whenua economic system: tangata – the home people and their whānau living away – involved as producers or consumers, while their ancestral land – whenua – sustains all.
8. Colonisation continues to impact the economic capability of hau kāinga communities regarding gardening production/feeding descendants at scale. History shapes the current situation of all marae economies. It is important for all including outside agencies to understand the basic impacts of history on each marae community including land loss and the effects of laws and policies - depopulation, high unemployment, low services and infrastructure support, among other things, in order to know how to provide the right kind of support for any food system endeavour.
9. Development and implementation of annual individual and collective mahinga kai implementation plans are important to success as is the development of longer-term plans and strategies.
10. The Pā to Plate implementation plans will not only account for the unique set of challenges each specialist grower faces, but also map out required mitigations and developments required to achieve success.
11. Hau kāinga need to be united in the development of a political, social, and economic support processes to protect and nurture their specialist growers.



12. Pā to Plate success can be measured in terms of economic outputs, and kin accountable (whakapapa)-engaged socio-political values of mana (authority, identity, control, influence) and manaaki (giving, caring for others, supporting others, showing respect). Mana and manaaki are also about risks and rewards. Outside agencies need to understand the mana/manaaki dynamic and the balance of these values as communities define them, in any support for business planning. As one gardener said, “Any external, outsider help has to be on local terms and with the understanding of tikanga.”
13. Pā to Plate as a cultural – economic system developed from a multi-marae community collective, can be replicated in any region based on the foundation principles outlined in our programme. The cultural antecedents that we discuss provide guidelines while the business principles and value chain that will be set out in a later document will outline other strategic pathways. However, essential to any success is understanding the complex range of challenges which are historically based and then planning for and mitigating against them. We set out some of these in this report.



## PĀ TO PLATE

### Introduction

In this project we are developing a social enterprise and micro-market model that engages and empowers hau kāinga ahi kā (locally resident marae communities) and non ahi-kā (non-local) descendants by connecting produce of lands - 'pā' - to consumers - 'plate'.

### Main goals of Pā to Plate: a brief overview

As a network of Marae-based growers in and throughout the mid Taitokerau/Northland region, Pā to Plate aims to tautoko/support whānau who have made, or who are thinking about putting down, gardens in their marae communities to then provide kai for their whānau near and maybe far.

Pā to Plate also supports those who are currently preparing, planting, or harvesting gardens and also selling any kai. It is guided by a tuākana/teina philosophy, that is, the idea of people with seniority/tuakana (e.g., have some knowledge) guiding others with less knowledge who are learning and who are therefore junior or teina. The principle recognises people can be and are tuakana and teina on different skills and knowledge, but each support the other. Manaakitanga is its practice and at its heart. Working together to support one another is key to success. We are connected by whenua and whakapapa and have shared but also different goals according to place, scale, and the ultimate objectives of each grower.

An ultimate goal of Pā to Plate is to strengthen connections: between people, their whenua and marae; between people and their kai from their marae lands; between people and the knowledge about that kai and ancestral land; and the connections between whānau near and far.

### Background to the Pā to Plate journey

Through hui, kōrero and a survey carried out between 2016-2019, we found that people wanted to see the development of a food and resource sovereignty movement that would provide a marketplace and a place of connection for people, kai and their marae kāinga.

Two key underpinning, initial drivers for Pā to Plate were:

1. Kuia and kaumātua wanting to see more of their whānau return home, to their marae; and
2. Better utilisation of whenua and wai within marae locales. This included whenua and wai already being utilised such as for commercial purposes, and other parts of the rohe not being utilised.

We realised that in relation to the first point, while the idea of returning home is a bigger issue, what underpinned it is the hope to promote and strengthen whanaungatanga or kinship between the diaspora of whanaunga or relatives, many of whom had left the ancestral marae homelands one or more



generations ago. This principle of strengthening connections therefore is central to the purpose of Pā to Plate.

In relation to the second point, that issue is also faced by all marae communities nationwide. Both points are significant concerns and we wanted to look at the two together and see how to reintegrate tangata and whenua and give substance to the hopes and aspirations of our people.

In early 2016 we therefore began looking at many issues including understanding what is already being 'produced' by and on land, what aspirations and capacities that organisations, marae, and Māori landowners have for their land, as well as looking at needs and interests of descendants living on, near and away from lands, in relation to their ancestral estate.



*Above: Pumpkins, Oromahoe, 2021*



*Above: Mahinga kai, Matawaia, 2022*

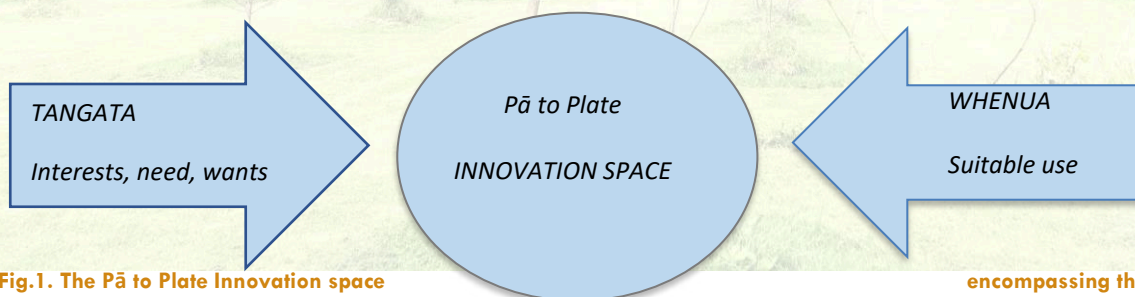
We were also keen to know what is the optimal or suitable use of lands (inclusive of waters) within a Pā to Plate catchment<sup>1</sup> as guided by principles such as mana/manaakitanga and the practice of kaitiakitanga alongside market principles.

Together with communities we identified and continue to identify capacity and capability issues within communities, growing issues (including environmental and climate impacts), market issues (e.g., supply and quality reliability and sustainability), and cultural knowledge gaps and opportunities.

We wanted to see who shared the same goals and understand what challenges there might be to realise the vision of Pā to Plate.



Pā to Plate is an innovation idea that sits between the two starting points of ‘people’ and ‘land’ or ‘tangata whenua’. A basic diagram illustrates this:



**Fig.1. The Pā to Plate Innovation space realms of Tāngata and Whenua.**

**encompassing the**

Regarding land, we are also looking at current land ownership, current use, and production of land (e.g., gardening/horticulture, farming, to the current non-use of land), any new land ownership and potential, the ‘appetite’ or interest of Māori land entities for developing anything new from / in their lands, and longer-term ideas around lease arrangements and partnerships with Crown and private sector organisations and groups.

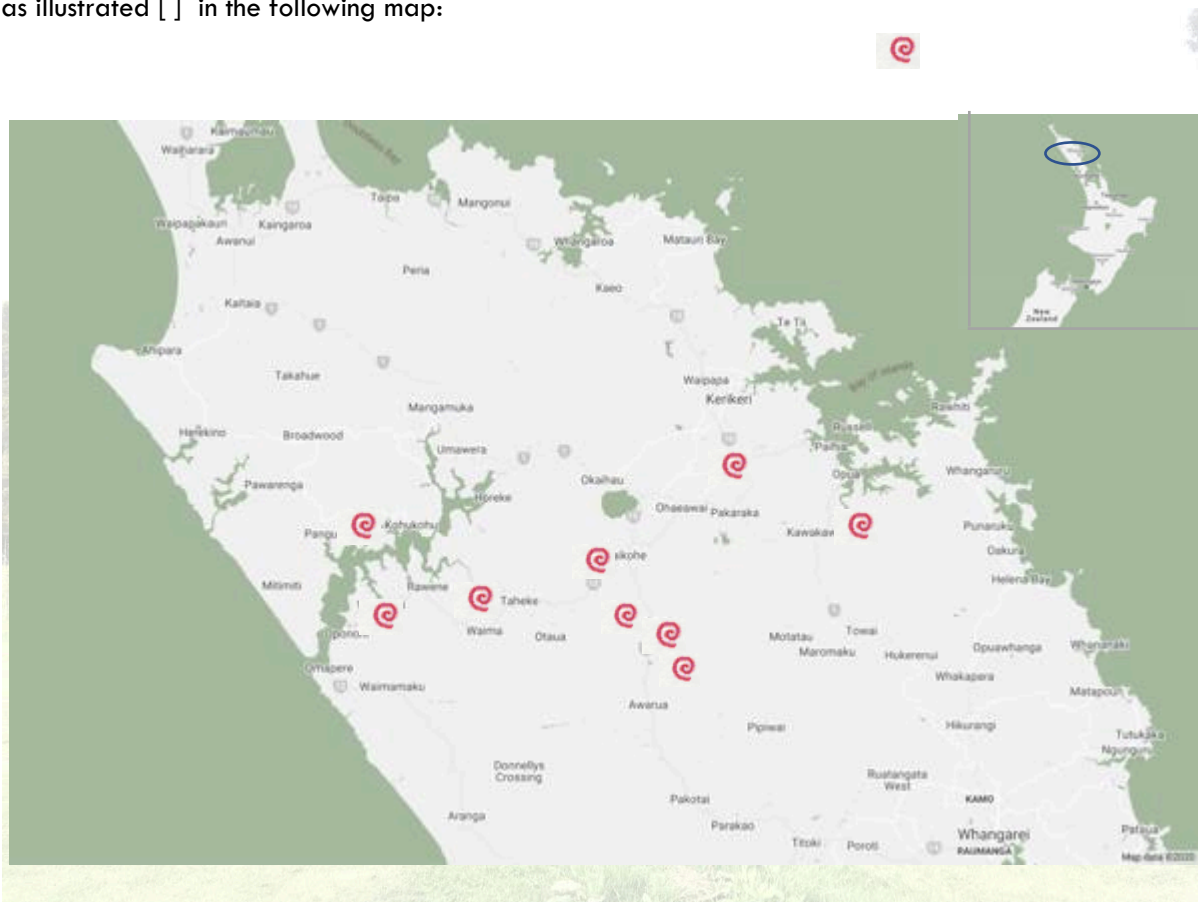
<sup>1</sup> The term ‘pā’ is used in an inclusive sense. Pā is linked to terms such as papakāinga, both are directly connected linguistically and in meaning to the terms Papatūānuku (ancestral mother) and whakapapa (literally layering). Whakapapa, literally layering, as in the ‘layering’ that refers to successive generations living in a settlement over time. The words pā, papakāinga and kāinga are used interchangeably (and in combination such as ‘pā kāinga’) because of these meanings



## Rohe: Area focus

Pā to Plate catchment focus 1: With the conceptual and initial research phase completed in mid-2019, Pā to Plate is now further supporting marae-based growers/kāinga specialists in their social and economic aspirations as well as developing further business and enterprise Kaupapa. It is centred in Northland including in the Bay of Islands, in the mid-North and in the Hokianga rohe/regions.

Northland covers diverse landscapes including volcanic, geothermal regions, rolling lowlands, along with farms, forests (indigenous and exotic), rivers, and both east and west sea/coasts. The first communities participating in some capacity as foundation gardeners have sites in Oromahoe, Tautoro, Karetu, Whirinaki, North Hokianga, Waima and Mataraua, as well as new interest from Matawaia and Parakao as illustrated [ ] in the following map:

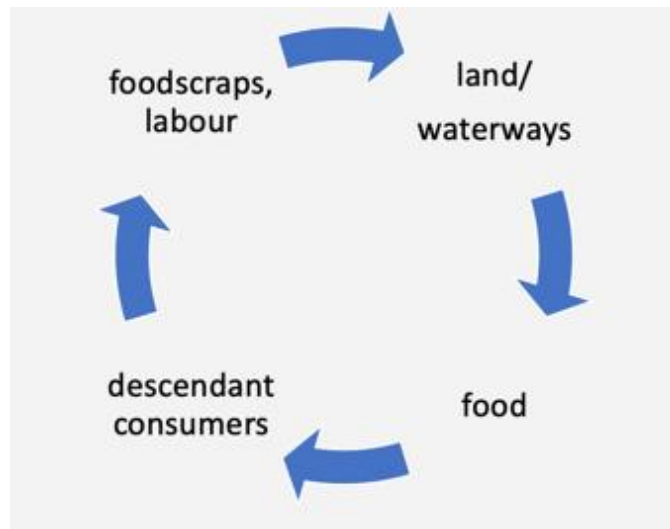


## Circular Value Chain

An underlying principle of Pā to Plate is to create a circular value chain, where for example, descendants/consumers can 'return' things like food scraps to source/whenua, their labour to help with working bees, or their ideas or other kinds of support to their marae-based whānau in developing their mahinga kai.

The basic circular value chain or cyclical economy looks something like this:





**Fig 2. Pā to Plate Circular Value Chain.**



**Above:** Gardens at Whirinaki, 2020.



**Above:** Gardens at Tautoro, 2020.

Pā to Plate is such as through consumer participation in any markets. Additionally, a lot of kai from the gardens goes directly to feeding local families, outside a commercial market context as well. Knowledge exchange is cyclical in all of these contexts.

### *Rangatiratanga in Pā to Plate*

Rangatiratanga – ‘chiefly leadership’; ‘sovereignty’ – is the cultural and political frame for Pā to Plate. Its practical application comprises two foundation principles: mana which is about exercising rights, authority, status and positioning and is about ideas of exclusivity while there is also manaakitanga which is about applying responsibilities by considering and responding to the views or needs of people and is about ideas of inclusivity. Mana and manaakitanga are two sides of the same coin that recognises where

there are rights to claim or exercise, there are also responsibilities to fulfil. Each go hand in hand. Pā to Plate would not be successful if the balance of mana/manaakitanga is not recognised and supported.

### **Cornerstone Foci of Pā to Plate**

We can take a closer look at what these cornerstone principles mean in practice through the target market foci of Pā to Plate which are:

1. The local informal foci: 'feed local whānau first'
2. The non-local social enterprise market 'Plate to Pā'; and
3. The formal commercial market.

#### ***1. Local informal foci: 'feed local whānau first'***

Growers all grow kai to be able to feed their whānau and local marae communities first. This is the primary social, local, informal, or non-commercial market. The manaakitanga principle is central to this focus. Re-establishing mahinga kai that in many cases have been dormant for many years is a major and important achievement in several cases not only in terms of bringing back local kai to whānau, but also as some growers have said, for their ability to re-supply marae for hui. This in turn solidifies the mana of the community in providing locally grown kai in providing hospitality/manaakitanga to manuhiri/guests. Mahinga kai also reduces reliance on outsider, commercial food chain supermarkets and returns the mana and control over a significant part of the food system to the community. And when food prices have gone crazy high in recent times, especially for healthy whole foods, there could not be a better time to plant gardens and provide for whānau that way.

#### ***2. The non-local social enterprise market 'Plate to Pā'***

A second market focus for Pā to Plate is aimed at the non-resident/non-local market of descendants providing kai to whānau in need. We have several ideas on this kaupapa that are being developed 'off-line'.

#### ***3. The formal commercial market***

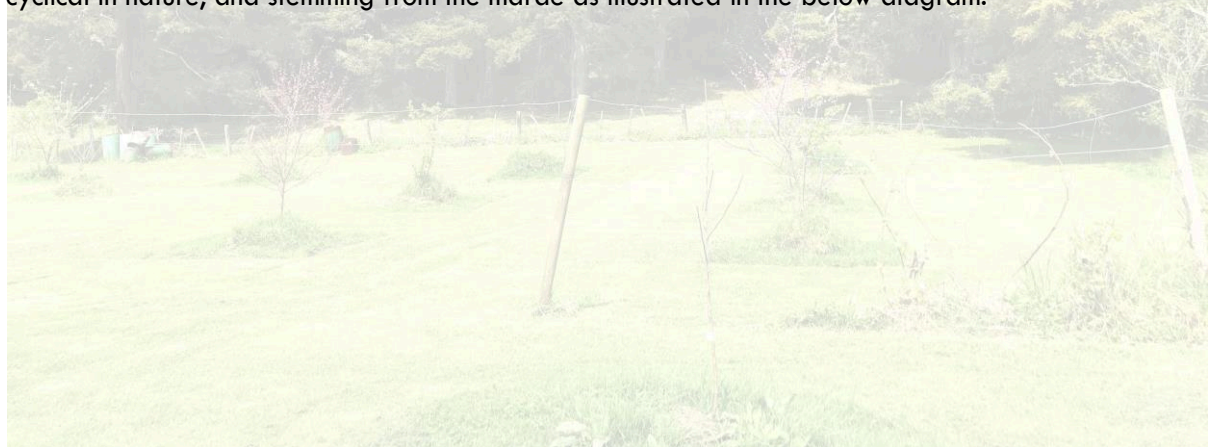
The third market is the commercial market and is where kai and other resources will be sold. Three market sites are targeted, and it began with a local face to face farmers market at the Northland city Whangārei in April 2021. Root vegetables and 'value-added' produce including chutneys and preserves were sold. In addition to the sales of produce was the bringing together of growers and team members into a supportive environment. This was manaakitanga in practice. The market also saw the exchange of ideas about food, marae, and kinship connections as well as incentivised interest amongst the growers to hold further markets there and elsewhere.



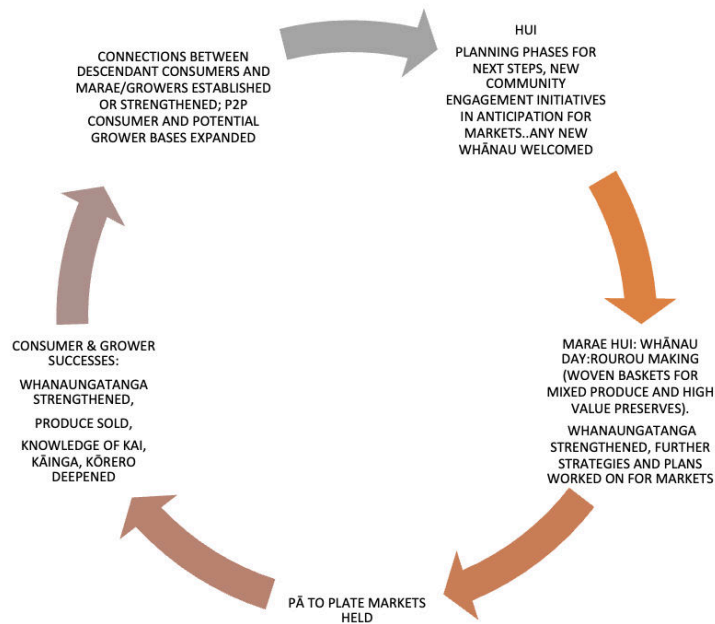
There was wide interest amongst locally resident Māori who came to the market and who wanted to know more about Pā to Plate. Many were also interested in whether kai from their own marae could one day become part of the operation. Manaakitanga here was about providing kai and kōrero, responding to consumer needs and interests and planning further ahead with those insights gained.

The next market steps for Pā to Plate was the trialling of further local markets in April 2022 in Whangārei. Later markets aim to include produce packaged in marae-based sustainable materials, such as via the provision of kete (also called rourou or baskets, or pāro). These will contain a range of offerings from peruperu, kūmara and other hua to value-added products such as preserves and jams. Rourou will also be packaged together with kōrero from each of the marae/ancestral lands.

Growers are also keen to explore marae-based or hapū-based markets (see 'change in commercial market focus and strategy' below). Whatever market option occurs, connecting kai, kōrero and kāinga is the underpinning goal. In preparation for the next markets, enthusiastic discussions at hui of Kāinga leaders/growers have included how to engage whānau in the making of rourou which would not only encourage community participation (including tamariki) and knowledge generation of the food system/kaupapa of Pā to Plate, but also strengthen whanaungatanga/familial connections between communities. This in turn can help to strengthen the economy system of Pā to Plate in advance of it progressing to a commercial enterprise. This is a practical application of whakapapa in economy, again cyclical in nature, and stemming from the marae as illustrated in the below diagram.







One  
the

of

growers is also focussed on supplying kai to descendants in Auckland but who all have whakapapa back to the original marae in Northland. That is a particular specific market focus and value chain with its own logistics.

There is also the idea to consider a Facebook marketplace and then later the online ordering system via the website [www.pa2plate.co.nz](http://www.pa2plate.co.nz) respectively. Both web-based platforms extend manaakitanga to a wider net of kin by responding to their needs per the orders placed. Each web market also helps to embed the mana or identity of Pā to Plate in terms of what it offers to multi-located marae descendants.

When Pā to Plate becomes economically strong and operational via online platforms (particularly the website), we plan to have whānau members from kāinga who fulfil all roles along the value chain. Growers/Kaitiaki Pā have spoken about their interests in seeing 'their own' fulfil roles in the value chain and so maintain and strengthen whanaungatanga links while also gaining some employment at the same time. Some of the job options explored by/with growers include:

- Ⓧ Logistics such as picking up kai from each mahinga kai;
- Ⓧ Researching, interviewing, and writing up kōrero that associate with kai (relating to whenua, the practice of gardening, maramataka, growers etc);
- Ⓧ Quality checking and quality control of kai ensuring that kai is excellent for the market;
- Ⓧ Website content management; order facilitation and communication with consumers;
- Ⓧ Packaging and distribution;
- Ⓧ Social media marketing and promotion; and
- Ⓧ Legal and accounting to name a few as discussed with growers.

On the functional aspects of the value chain and the upskilling required for engaging in that successfully, we have been investigating logistics of similar food systems/operations nationally and internationally and would mirror some of their practical steps such as food orders being taken by a particular cut-off day in the week with deliveries made on another day of the week. We asked the community leaders/growers about these ideas, and they were receptive to them and liked the basic pragmatics of them.

### **A change in commercial market focus and strategy**

Originally, the early focus for the enterprise development of Pā to Plate was online ([www.pa2plate.co.nz](http://www.pa2plate.co.nz)) with participation in some local community 'farmers'-type markets (e.g., Kerikeri, Whangārei). The strategy has reversed from this online platform to local markets, however, due in large part to Covid-19 disruptions and because an online presence requires much greater set up plus readiness and commitment by growers to provide quality food and the higher need to have ongoing supply with a web-based operational environment. Seasonal/weather-related issues are always challenging and to a large extent, mitigation strategies are beyond the control of growers at the present time until for example, they have sufficient capital to invest in some things that can help (e.g., water tanks and a constant supply of water such as during times of drought, netting to stop birds eating fruit and other permanent pest control systems, labour etc – see also challenges below), but, no one can ever control the weather or all things!

Set up means considerable value chain development including logistics, obtaining kai from growers, storage, and warehousing, responding to online orders, packaging, and sending among other things required of a successful value chain implementation (legal, administrative and compliance regulations). For these and other reasons, small-scale, local face to face markets are considerably much easier as a first step for the multi-marae Pā to Plate grower collective. Despite the change in market strategy, we are nevertheless pursuing concurrent strategies – having an eye on immediate, situational opportunities while also continuing to develop the longer-term plans including the ongoing development of the Pā to Plate website. Two marae are also interested on exploring their role as potential venue(s) for storage, collection, and distribution.

The commercial aspects of Pā to Plate from a grower perspective also suit local low-key markets from their points of view, being easier to manage and also from the point of view of bringing them together in a kotahitanga/whanaungatanga sense as well as being connected directly with extended whānau consumers. Farmers markets will continue to be used to trial the selling of kai in an open market setting including testing the quality of kai and the readiness of growers to participate. But these are not the ultimate market foci because they are not specifically descendant market oriented. Some descendants attend them, but they are often attended by others, i.e., the general public. The descendant market is the target market for Pā to Plate, hence the hapū/marae-focus or local focus (e.g., Kawakawa) for markets. Three growers in particular have spoken about the idea of having markets 'down at the garden' even, if not actually at their marae. This would also aim to generate further local interest in not only the kai, but also in the activities of gardening alongside the whanaungatanga and manaakitanga elements of gardening. Further flow-on effects may then see new gardeners starting out because they see things actually happening in their own community.

The key reason for focusing on local is that growers have said they need to start small, focus on local whānau first, i.e., 'feed whānau first', before anything commercial, build slowly and build confidently.



Also noted was any enterprise cannot become commercial within only a few months from start up. Even though some growers have been gardening for many years, others have only just started. And despite this mix of experience, none have worked together in this innovative multi-marae cooperative context with the goals of connecting kai, kāinga and kōrero before. However, the innovative potential is significant given the mix of mātauranga, western (e.g., professional skills from education, media/television/journalism, electrician, agriculture/farming and other professions), gardening and deep kin community knowledge that exists between them.

More challengingly, however, most growers emerge from complex economic and social circumstances where material goods, machinery and supports are often limited. As one grower said of his gear, they are museum pieces that needed a few tweaks to be re-used again (see 'Challenges' below for further discussion on Challenges, which will then be a basis for developing a set of pragmatic guidelines for Growers and others to aid in the successful implementation of Pā to Plate).

Despite the challenges, Pā to Plate is about building a fellowship, building followers and supporting the growth of essentially a whānau. Keeping it local as discussed above is the first and foremost strategy for achieving these things because it utilises the papakāinga networks defined by whakapapa and as measured by whanaungatanga. The Pā to Plate Facebook page has aided these networks as well.

### **Pā to Plate website**

The key function of the website is to provide information on each of the marae-based mahinga kai and what kai is grown and what kai is available to order. Pa2plate.co.nz has been built conceptually. It may take another 1-2 years before Pa2Plate.co.nz is utilised as an ordering system but it is possible to use it for ordering for local distribution and for small scale orders. Those details are to be built into the business planning and more kōrero is to be had with Growers about how it could and should further develop.

The site currently provides basic information on each marae and the ancestral landscapes. Another aspect discussed at hui and in kōrero with some growers has been profiling them and then issues about how to do that, rotating kōrero and keeping them current.

The site will also gradually build to incorporate kōrero of lands, waterway and hua so that when people purchase, they are also receiving the opportunity to strengthen connections or to reconnect with local kōrero relating to the kai.

The website design elements emphasising the Kai, Kōrero and Kāinga aspects on the home page and the main menu is represented in the following screenshot of the top of the home page:





Ordering kai is via each marae as the next image shows, where real-time information on stock (kai) availability is shown. If no kai available, information can be given regarding estimated arrival or availability of kai so that descendant consumers will know. Other ideas such as information on estimated amount (e.g., kgs) of kai availability can also be given. We are and have been investigating Indigenous online market Food systems internationally to see what works and what is being done. All these ideas are to be fine-tuned together with the Growers.

## Our Kai

Explore 'homegrown' grown and produced kai from the Tai Tokerau/Northland landscapes that have nurtured generations.  
All kai subject to local and season availability.



Oromahoe  
Pumpkin  
Out of stock



Tautoro  
Peruperu  
Out of stock



Tautoro  
Kamokamo  
Out of stock



Oromahoe  
Plums  
Out of stock

We are also looking at design features like how to connect hua directly with land when people come to purchase, such as showing what is available to order via a geospatial map (like [www.Maorimaps.com](http://www.Maorimaps.com)). The practicalities of this, alongside other ordering systems are being investigated, with the core principle of ease of use guiding the design.

A key point of difference and value proposition of Pā to Plate compared to anything else in the market is its focus on food/kai connection to land and kōrero and its focus on connecting descendants not just living at home, but also living away so they can reconnect to marae and whenua via food. Within this kāinga, kai and kōrero matrix are the unique layers of mātauranga or knowledge that emanates from each community relating to their social, environmental and climate circumstances.

### **Grower/Kainga specialists: Where are they now?**

While mana/manaakitanga underpin the operational aspects of Pā to Plate at all levels, the realities of each of the growers give some perspective on what mana/manaakitanga looks like or could like to them.

Each of the growers are at different stages in their mahi, in the opportunities that they have ahead and desire, in the stressors and in the challenges that they face.

Complex historic, economic, social circumstances are wrapped around each of the papakāinga members who are engaged in growing mahinga kai. This section of the report provides some insights into some of them.

Despite the ongoing challenges to our papakāinga, the extent of innovation and entrepreneurial drive is significant. It is based out of historical precedent carried through whakapapa (e.g., gardening itself, the development of rongoā, innovation ideas for next steps about the food economy) and which historically saw the pursuit of new markets and economies, led by male and female entrepreneurs. The network of kāinga specialists involved in Pā to Plate is no different in their innovation and the entrepreneurial drive within.

They are guiding, directing, and shaping the progress of Pā to Plate, through Grower-led plans, Grower-led processes to support them in developing 'readiness' for further Pā to Plate mahi (commercial markets, social events etc), where those processes include for example Wānanga Kaupapa, annual hakari events, the development of kai standards, teaching (e.g., skills and fun events for succession planning longer term—such as for tamariki at school). Each of the initiatives that Growers are keen to lead and are already leading are steps that nurture and grow skills and capacity of not only the current cohort of growers but also of others by providing a nurturing ground for people to come into and to explore the world of mahinga kai and to trial out for themselves with the support of the network.

Fundamental to the success of the initiatives which will also be the critical success factors for Pā to Plate into the future are the activation of whanaungatanga, whakapapa, whāngai and based on whenua stewardship.



As has been repeated by one of the growers, 'atawhai ki te tangata' is a foundation value that binds people into reciprocal duties of care, kindness, and benevolence. It is intrinsically and behaviourally aligned with manaakitanga, which depending on one's interpretation, may be seen as a higher-level framing for atawahi. Both are similar however and both operate at inter-personal and intra-group levels. To briefly also return to their link to rangatiratanga, it is the act of atawhai that secures or deepens rangatiratanga in context (where that context is social, political etc) (Williams (2005:19) Māori dictionary describes Rangatiratanga: "Ko te rangatiratanga o te wahine nei, he atawhai ki nga tangata o tona iwi"; "the leadership/chieftainship/sovereignty of this woman is the caring of the people of her kin group"). At the heart of giving (support etc), one receives something in return. It's a reciprocal bind that strengthens relationships. Therefore, in the context of the successful development of Pā to Plate, atawhai and the values mentioned must be front and centre.

The activation of these values comes out of marae/papakāinga/whānau contexts. Such contexts are the learning forums. Over time this knowledge – mōhioanga – becomes skill/enlightenment – maramatanga.

To summarise, each Kāinga specialist/Grower has three layers of expertise:

**A. Community-based deep knowledge:** this is knowledge that concerns how the community functions according to the checks and balances of the kinship system. This knowledge is about understanding the application of whakapapa in terms of the rights and obligations of being a member of a marae/hapū community and the fulfilling of the accountabilities therein. This knowledge is decades in the making. Without this knowledge, it would be impossible to establish mahinga kai.

**B. Mātauranga:** relating to growing, whenua, climate etc. This knowledge stems from whakapapa and kāinga, and from observations (e.g., of signs from the environment), trials and testing (e.g., relating to planting, growing, and harvesting). Mātauranga is both the complex system of melding established systems, theories, and practices with new knowledge, given the contemporary challenges now present (e.g., a changing climate, pollution etc), to create new solutions for mahinga kai practices.

**C. Western-world expertise:** the skills that Kainga Specialists have acquired over their lifetimes (e.g., as farmers, educators/teachers, journalists, electricians, builders, social workers). These skills are imperative in developing the next phase of P2P. E.g. electrician expertise to help design and develop the right storage facilities (especially solar where there are no power outlets); farming expertise relating to land use; engineering solutions to overcome water supply issues, education and teaching expertise to transfer/integrate wider skills, technologies and applications via Māori valued systems of knowledge transfer (e.g. hui/wānanga/workshops run by specialists alongside kin accountable experts (tohunga).

The Collective/Whānau of Kainga specialists/Growers/Kāinga Specialists is the entrepreneurial combination of the complementary skills working together. It is an innovative skill set that is unprecedented in Aotearoa for a multi marae collective acting to empower communities through food.



Now, with the cultural and wider contexts of the Kāinga specialists/Growers outlined, this next part of the report takes a deeper look at some of the specific issues some are facing. Two examples are looked at. These snapshots are constructed from the views of Kāinga specialists/Growers.

**Kotahi:**

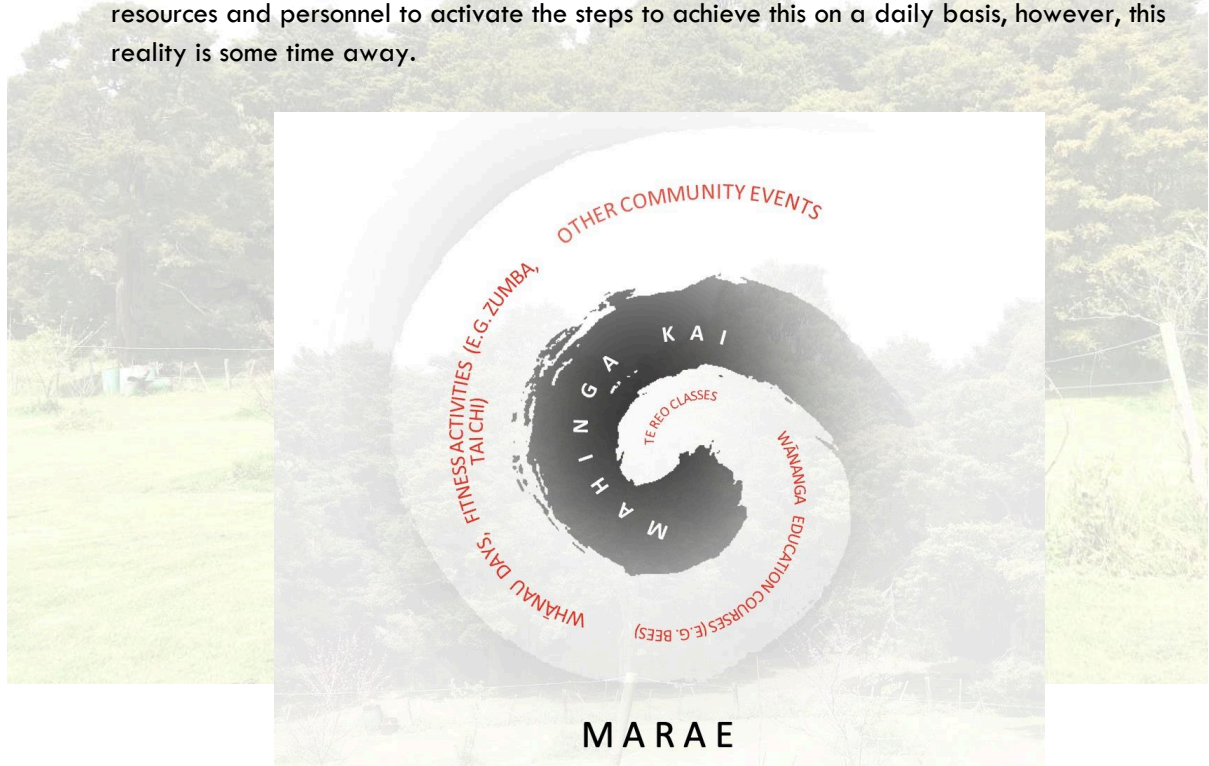
1. Possums have eaten and stripped all the stone fruit trees. (Apple trees are all good though. Peach also.)
2. Netting structure system around each tree last year was not robust enough and blew over in winds.
3. No money to buy strong stakes and other materials to rebuild.
4. Too late to do anything for these fruit trees this year, therefore.
5. Netting for grapes is possible. Doesn't require stakes etc. But other problems beset grapes in the North especially the rain and humidity making it difficult to keep.
6. A longer term issue is tenancy of living which remains uncertain in years to come as the house owner who lives overseas may want to come home and relocate. He has indicated ideas about taking over the house as well as building another place and this makes it difficult for long term planning for any horticultural enterprise. Other 'locatable' food systems such as pumpkins, melons, salad and vege gardens are therefore possibly or likely options to consider longer term.
7. Emergent and early learning: e.g. Pumpkins: 23~odd planted, 3-4 per plant, 60-80 in total. Learnt that it's better to leave them in until leaves have died. Last year picked them when leaves still alive in February so will leave until March. Still early days regarding learning the lifecycle. Some have died - about 3 or 4. Root, stem and leaves got too wet and got rotten. Dry conditions then lots of rain in a couple of days (currently also) along with long grass. So learning to aerate, pull back and cut grass.
8. Social context: All about understanding the person's circumstances first. Small scale is possible but can't commit to larger production when many factors like tree care, tools (more than a rotary hoe and other basic tools), hardware, and other things needs to be taken care of. And all of these can't happen when cash poor. No investment possible. Solution is to apply for more funding. Then longer term for Pā to Plate to work as a cooperative is possibly with shared tools, gear and machinery. Issues there will be availability of gear if more than one grower needs the same thing, storage of gear, maintenance and also ease of access for growers.
9. No succession in place. (This Kaimahi is in his 70s). So developing a sustainable pathway and a realistic opportunity for someone, along with education and support is critical but is not yet available nearby. A solution may be to look at a horticulture programme in kāinga. An apprenticeship kaupapa. Partner with support organisations, funding, maybe housing and with local land owner (e.g. lease) to expand any horticultural enterprise).
10. Rats from the bush is also a big problem. Native bush sits on the edge of the orchard. Related to this issue is the fact that if and when the orchard and garden becomes increasingly successful, this means a greater food source for the pests (rats and possums). This in turn means a significant threat to the Kiwi population that has only just started returning to the ngāhere within the last five years (naturally from neighbouring forests). There is no Kiwi restoration plan and no pest plan for the bush. Pā to Plate therefore has

very real ethical and environmental issues to address as by-products of its support for marae-based mahinga kai.

11. A whata was built but in the wrong place under a totara tree and it just attracted rats so it has to be dismantled and rebuilt properly at a new location with pest-proof material.
12. Small steps. It is important to enjoy them and learn from them.
13. Horticulture is difficult. Steep learning. Can't go from zero knowledge, small scale and part time work to commercial production in a short time.
14. Any external, outsider help has to be on local terms and with the understanding of tikanga including mana and manaakitanga, and when is the right time to do things. When to give advice. People have sensitivities. They all have differing approaches. All need to be understood. E.g. a kuia's birthday and tangi each require a different approach. Like a lunar calendar also which requires different approaches to growing at different times.

## E Rua

1. Aspirations for mahinga kai are dualistic with the marae: to foster and nurture the idea of both the gardens and the marae being an integrated living space. For want of limited resources and personnel to activate the steps to achieve this on a daily basis, however, this reality is some time away.



Mahinga kai and marae: An integrated space.  
Aspirations for the future.

2. Mahinga kai needs to be seen as part of a matrix of marae-centred aspirations to revive the wellbeing (oranga) of the people, where activities may include, for example, the things in the above diagram.



3. Utilising the marae as a focus for activity (e.g., above) includes free and paid activities. 'Can't live on nothing': therefore, it is important to look at self-funded operations (also in alignment with Pā to Plate) [further ideas were discussed, but not reported on here].
4. Commercial aspirations are important but providing for whānau is the priority.
5. Long term grower skill base: important for tamariki to learn and be involved, including fun activities, or else the sustainability of gardens will be in question.
6. Opportunity to develop closer relationship with local school; kids learning in mahinga kai; competitions (e.g., biggest pumpkin, prettiest ones etc).
7. Opportunity also for local marae person to run education programme/s in schools
8. Broader goals for mahinga kai include raised garden for strawberries, more fruit trees, honey-making, extending out to wai: e.g., watercress and puha and offer 'drive through' from the marae for kai.
9. Water issues: have tank now, need to get irrigation fully system set up. Water security will be a long-term issue. Climate change is affecting us now. Increasing drought but also flooding. When drought has occurred, people from outside the community come in to take water from the local spring. Local people take what they need or can carry but when increasing numbers come with their containers, this puts extra stress on supply, thereby making it difficult for local people.
10. Bigger farms nearby are drawing huge amounts of water (e.g., avocado farms). What is the effect on gardens and homes?
11. Be good to look at maramataka alignment with planting and gardening work.
12. Rock/stone removal in ground will always be an issue given the nature of the volcanic environment. This makes it difficult for machinery.
13. Much land taken by Public Works Act (27,000 acres) in the late 1800s to early 1900s for a railway that was never built and never returned. The remaining land base on which to develop gardens is therefore limited to the immediate area around the marae and in people's private sections.

While the above two examples looked at a range of issues, both in terms of opportunities and some challenges, the next section turns to common themes relating to "challenges" more specifically that have arisen or will likely continue for growers. Some are specific to each papakāinga, others are more general and common to each.

### **Challenges – what are we learning?**

Challenges to kāinga seem all pervading to Pā to Plate. Pā to Plate, however, began as a novel idea of strengthening connections between descendants/tāngata to whenua and through that investigating a potential economic solution for rural Māori communities. This section details the refinement and refocusing on the challenges of Pā to Plate since its emergence.



Early research (see also kōrero at the beginning of this report) began with a hypothesis: that there was a demand for locally produced food from ancestral landscapes amongst descendants.<sup>2</sup>

Under the tranche II, Our Land and Water – Te Kotahitanga o te Taiao – Pā to Plate research has centred its lens on the kāinga and specifically the growers and looking at what it would take to build Pā to Plate from ‘the ground up’. Research has therefore become especially kāinga-centric. We discuss general themes first and then discuss three case studies in terms of the specific challenges each are facing.

### *Climatic challenges, then and now*

From one generation to the next knowledge systems were rehearsed, tested, recalibrated, and implemented as fit-for-purpose practices in step with local environmental, social, political, and economic conditions, which invariably shifted from one generation to the next. Given the oceanic influence on climate, catchments throughout the motu calibrated their economic practices accordingly, papakāinga specialists (tohunga) were particularly expert in reading the signs (tohu) as they related to their resource responsibility and guided labour in step with the science (mātauranga) being provided. Gardens were no exception. The ability of a papakāinga to maintain its political autonomy and position in its catchment was predicated on predicting challenges to ensure food security across the generations. Failure during planting, nurturing, harvest, storage, and defence, leading to loss of carbohydrate represented a crisis to which a kin group might never recover - requiring successful planting, harvest, and storage of kūmara from one year to the next. The same environmental and climate challenges remain today, but these challenges are more pronounced – the knowledge systems that once guided communities are less understood, and the climate is changing causing more frequent and intense pressures on the practice of gardening as well as living in general in Northland/Tai Tokerau. This is a major topic for another report and we only skim the surface of it here to point to its significance on the establishment and progression of Pā to Plate. With climate change challenges comes specific challenges that growers are now facing. The first and common issue amongst all growers is the question of water security.

---

<sup>2</sup> Under the auspices of the Mauri Whenua Ora programme (precursor to Te Kotahitanga mo te Taiao), we had a broader programme of research that 1. focused on identifying shared iwi aspirations within the context of multiple northern iwi as well as 2. marae-level cultural economic systems (discussed earlier in this report). A central aim of the former was to identify the areas where the major Northland/Taitokerau iwi could align with each other and leverage the collective power of iwi. We worked with the Taitokerau Iwi CEO Consortium, exploring shared aspirations ranging from, for example, indigenous forestry, native pharmaceuticals, apiculture, agriculture, and horticulture. This research was also interested in iwi-led infrastructural investment in these areas as they might related to strategic support for whānau, hapū and Māori land business. Here we also explored the possibilities of a kin-framed market system to be, in part, set up by the Tai Tokerau Iwi CE consortium (nine iwi-organisations from the Northland region). Mid-way through work with the Consortium (e.g., workshops, interviews, meetings), we worked one-on-one with independent iwi CEs. This approach reflected the varying levels of resources, sub-regional land biodiversity and social/economic readiness of the respective iwi, while leaving room for iwi to leverage the collective power and scale of the Consortium in the future. One-on-one research with iwi CEs similarly demanded further refinement. Research revealed that an iwi-level market exploration was similarly ambitious and would require significant seed investment by the iwi in local marae community horticultural endeavours. It was at the marae level where first steps needed to be taken, driven from there and worked upwards and outwards. At the time also, most iwi involved in the Consortium were independently exploring and undertaking investment in large scale mono-cultural crops such as kiwifruit and avocados.

## *Water security*

Water-security is the significant concern amongst participant papakāinga throughout Tai Tokerau. Access to sustainable sources of water for horticultural endeavours is an increasing pressure. Despite significant water reservoir developments in Northland (Tai Tokerau Water Storage Project, for example), many Māori communities do not possess the resources to bid for and secure water allocations. Water security issues will be compounded by the impacts of climate change, both in terms of Northland droughts and increased instances of heavy rainfall events.

## *Succession and labour supply*

Today's challenge is to reverse the systemic breakdown of gardening knowledge and its application (practice) before it is too late. This crisis is not without its challenges. But like all challenges, there will also be associated opportunities, built out of learning and a willingness to adapt, innovate and take risk, synthesising current systems of knowledge and practice both within and beyond the marae gate. Succession has been identified as a critical challenge. Succession of knowledge and practice remains critically dependent on successful reengagement of a new mostly urban-raised generation. Attracting home technologically skilled and IT literate descendants to assist elders and digitally isolated relations to innovatively future proof gardens so they become more climatically resilient (in the face of droughts, floods and pests for example) and fit for 21<sup>st</sup> century ethical consumption (such as being mauri 'safe' certified) will also be key ideas to pursue.

In addition to addressing succession issues, there is a more fundamental challenge concerning the access of labour. The depopulation of Māori communities - compounded with the pressures on employment and income - have meant there is a limited pool of labour to 'work the land'. Almost 40 years ago, I. H. Kawharu surmised the change in subsistence of his community Ōrākei, stating, "no longer is there a livelihood to be wrested from the sea or the land by communal effort; today, all who work do so as individuals and for wages" (I. H. Kawharu, 1975, p.1). Today, Māori families and individuals are almost wholly physically and economically disconnected from their hapū, reliant on waged income and supermarket chains to sustain themselves. This, in part, is exacerbated by entrenched (Māori) societal challenges:

- a) the 'economy of convenience';
- b) cross-generational 'disconnection from source';
- c) time poverty; and
- d) fraying functional kinship (hapū) links

While points 'a, b, and c' are well observed and symptomatic of 21<sup>st</sup> century norms, point 'd' is less understood, and represents an enduring consequence of colonisation. The current reality is that many of our growers are no longer part of fully functioning papakāinga in kinship or economic terms (save for brief moments during life-crisis such as tangihanga), even if they as individuals and as members of their



whānau are keeping the home fires burning. The problem is that many if not most of the wider hapū no longer live at the ancestral marae and do not participate as frequently as the resident-growers. Kinship provided the genealogical binding of a social network and labour force amongst whom the resources from lands and waters would be gender prescribed and distributed, accordingly. The unravelling of kinship and economy because of land individualisation, fractionation, alienation and descendant migration continues to strain the resident marae system – living and being connected to papakāinga (pā) – including the effect on the decreased and now limited supply of available labour for mahinga kai.

The many challenges facing food production in a hau kāinga environment that arise out of a long trajectory of colonial impacts across generations require a new level of skills to successfully negotiate new fit-for-purpose solutions. By accessing, adapting and/or innovatively applying new skills/knowledge, a new generation of emerging gardening leaders can use food production to dynamically (re)engage social, political, and economic well-being of their hapū, both living at home and away. We are weary not to overstate Pā to Plate's role in this but understand the enabling role it may offer to communities in restabilising/reasserting systems of rangatiratanga.

### ***Infrastructure and resource support***

The next theme that has emerged from the Pā to Plate papakāinga is the limitations on infrastructure and resources. The need to rebuild Māori community food security and re-establish their food sovereignty in Tai Tokerau is great, particularly in rural marae communities where a high level of economic deprivation remains. While the impacts of colonisation are well documented (discussed above), one particular barrier to mahinga kai growth has been limited access to financial support. Kāinga often struggle to raise capital partly due to an inability to loan against Māori land. Not least, where loans are accessible, kāinga growing specialists still must service debt commonly through full-time employment, while also maintaining their emerging mahinga kai. This dual responsibility in addition to whānau and community roles is significant and likely unsustainable long term. Many of the gardeners are not full-time employed in either their horticultural enterprise or in other work but undertake some part-time work. That together with operating a mahinga kai (and the other commitments just mentioned) is also significant and difficult to sustain.

To date, Pā to Plate investment in kāinga has been generated from various sources. Small grants for and on behalf of our kāinga specialists have been applied for, and received from:

- Ministry of Social Development - to support food security concerns - reticulated water supply, shelter belts & shade house (\$20,000 to one grower) and a processed food initiative across the communities (\$20,000)
- Kai Ora Fund (Tai Tokerau TAs, Northland DHB, PHO & TPK) – a local food security fund – (\$15,000 for three growers)
- Foundation North funding – Community development and buy in - fostering grower connectivity (\$30,000)



- Pro bono legal advice by Chapman Tripp Ltd - to establish the charitable business governance entity and company E Māra E Ltd (\$10,000)
- In-kind investment - research team (Prof. Merata Kawharu, Prof. Paul Tapsell, Assoc Prof. Krushil Watene, Dr Hirini Tane)
- In-kind investment - Innovation Broker Paul Voigt

These investments are, however, piecemeal and do not provide long-term comprehensive solutions. Rather, they provide a contribution towards first steps. For meaningful transformation, significant investment is needed in our kāinga to overcome generations of the negative effects of Crown legislation, land alienation and economic deprivation, not least to aid the rebinding of customary and contemporary mahinga kai knowledge systems with communities. The level of support needed for kāinga can be compared to the native nursery projects that are now operational for river/catchment (water) quality aspirations and national objectives (for example Ko Waitangi Te Awa Trust, Puniu River Care Inc). Each project is supported by several millions of dollars of Crown investment (i.e., the Ministry for the Environment/Jobs for Nature).

With available resources, Pā to Plate could then address the following identified constraints:

- Land availability: many papakāinga have limited to no available or good land for developing gardens;
- Limited or no new or adapted techniques to address droughts, floods, pests;
- Limited power supply, irrigation, and storage systems;
- Limited IT access, possibly tech literacy, and marae community connectivity; and
- Limited labour supply and knowledge (i.e., training and education as well as employment).

### **Kāinga realities: examples of challenges**

In this section, challenges on growing relating to two 'case studies' are explored.

#### **Kāinga tahi: Grower 1**

Grower 1 is a specialist ancestral knowledge holder in matters concerning Māramataka (Māori planting calendar as relates to astronomy, biodiversity and oceans in specific regions and local catchments). Through regular Pā to Plate hui the genealogically cross-referenced observations of this kaumātua maintained through kōrero, karakia, whaikōrero and waiata have guided many in the wider community in their own decision making and timing, regarding planting and harvesting. The cross benefit of knowledge sharing, comparing last season (2020/2021) to this year (2021/2022) is already evident. Integration of genealogical knowledge systems (how best to read the environmental signs beyond dates on a western calendar system) with modern day technologies has supplemented the knowledge of other growers and helping to contribute to crop production in 2022. Grower 1 has focused on specialising his knowledge pertaining to root crops (particularly kūmara), using lands his ancestors traditionally maintained as gardens for many generations. His goal is to produce enough seed stock to plant out tens

of hectares in the 2022/2023 season and sustainably supply over 100 descendant households living in Auckland as well as local whānau and marae. This ambitious goal has recently encountered some challenges:

1. Whereas in the past his gardens were generally replenished by rains and supplemented by the nearby river, the changing climate has resulted in a pronounced shift to drought-like conditions and possible soil deterioration. Lowering of both water table has seen him to seek the assistance of the local fire brigade to provide water to keep his gardens alive (the fire brigade providing big enough water supplies).
2. Auckland's 2021 Covid lockdown disrupted planting. It prevented a younger generation from coming north to provide critical garden preparation and labour while also learning Māramataka knowledge as once maintained by their ancestors.
3. The gardens are built on multiply owned lands and banks are generally reluctant to finance gardening ventures on such lands, especially with climate change (because it represents high risk) and not least because the land cannot secure any loans.
4. The recent water stresses have further contributed to Grower 1's anxiety to find a way to finance the gardening venture through to harvest and distribution to Auckland. While koha and voluntary labour (local busy whānau including one key member who returned back to the rohe from city /trade life just prior to Covid) have been of assistance, he has also relied on his personal credit card facility and savings to complete critical gardening operations like tractor repairs, diesel, boxing, gate building and fencing (keep out stock), manure and water delivery.
5. With no end to the drought-like conditions in sight and an ongoing labour shortage (for weeding, garden maintenance, harvesting etc), Grower 1's stress levels are incrementally rising and his blood pressure is suffering accordingly.
6. Grower 1 is retired and therefore earnings now are low compared to when he was earning previously. They are not high enough to start a long-term horticultural enterprise.

#### **Kāinga rua: Grower 2**

Grower 2 is a passionate gardener who has been deeply involved in his hapū community since he was born in the 1970s. He is constantly pulled in all directions, maintaining kinship obligations on behalf of his wider relations, especially at tangihanga. His marae community is generally impoverished, at least by western standards. In former days no one ever went hungry. The community worked together, relying on gardening, fruit trees and game hunting as main source of sustenance all year around. From the 1970s most of Grower 2's cousins disappeared off to the cities while he remained, supporting his elders. Soon he began raising a family of his own. But like their uncles and aunts, his own children are now keen to also escape their everyday impoverishment and seek a better way of living in the far away cities. Major challenges recently experienced:

1. Workflow disruption due to hui, tangihanga and whānau responsibilities. Such events directly pull on Grower 2's generosity and diverts him from time in the garden. Has also resulted in him giving away produce to assist other communities feed dignitaries, as occurred on 06 Feb 2021 when Waitangi relations ran short of food to appropriately feed the PM and her large government delegation.
2. This grower is also known for his generosity in the community. People in the community know they can come to the marae where the gardens are to collect any of the produce they would like. They often take a lot, leaving little behind.



3. High winds and drought conditions have dried out the soil this year and crops have struggled to thrive.
4. During 2021 harvest time rats, pigs and relations proved to be a competitive challenge. In 2022 Grower 2 is exploring ecologically friendly interventions to tackle the rat and pigs. Harvest participation is being explored to better engage wider relations who will be paid in kai.
5. Long-term onsite storage capacity that is rat proof and environmentally controlled (cost of electricity is a factor) is being addressed through the successful funding applications but further funding and labour is needed to enable the storage facilities to be completed.
6. Water security is a major factor. Was using water collected at marae but now obtaining water via a newly acquired water tank which was purchased through successful funding. The tank may not be sufficient long-term. There is hope to establish gardens elsewhere nearby which would mean further tanks would be needed but there is no funding for that, yet. The original marae-based water which originated from springs was already under stress from overuse by new avocado farms who have acquired large non-notifiable water take consents.

## Conclusion

This report has briefly introduced the Pā to Plate kaupapa/enterprise idea, its key goals, and the challenges that Kāinga leaders who are also growers now face. There are multiple strategy, business, community, and other social, cultural, and economic steps ahead. Understanding then addressing the challenges and risks is critical to any successful outcome if long-term solutions for the multiple current and future marae are to be found and maintained. Success will materialise if and when the enterprise is driven from the marae communities.

Support for them is critical now more than ever, when our marae and those who are engaging in the complex work of maintaining mahinga kai, are faced with not only the current climate change impacts, ecological, environmental, social, and economic challenges, together with the Covid-19 pandemic, but also the long-tail effects of colonisation that has seen these communities depopulate.

Their shared histories have also seen the loss of much land, leaving what remains in multiple title and the many financial and social difficulties of dealing with that.

But even despite loss, all communities and these community leaders who are also developing gardens have shown significant resilience and innovation. The potential for economic and cultural empowerment is great.