Pā to Plate: Indicators of Success



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Te Toto o te tangata he kaí Te oranga o te tangata He whenua.

The blood of people comes from food

The sustenance of people

Comes from the land.

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Executive Summary

Pā to Plate (P2P) is an aspirational Māori socio-economic enterprise pilot that was established in 2016 in Tai Tokerau (Northland).

Its core focus is to support and assist the development of new and established kāinga- (marae-community/hau kāinga) based growers, delivering micro-market local produce to descendants wherever they may live. (These are at the marae/local, in the rohe/district or the taura here/urban kinship groups living away).

Over the past five to six years, Pā to Plate has grown into a novel vehicle that is reinvigorating maraecommunity mahinga kai (garden) ventures.

Since inception, it has been guided by values of Whāngai (inclusive nurturing), Whanaungatanga (kin accountability), Whakapapa (genealogical relationships) and Whenua (soils, waterways and local environment). These are the foundation values that drive the successes of Pā to Plate. There are others, but they all relate in some way to these ones.

The convergence of climate change, COVID-19, and systemic poverty amongst Māori has motivated kāinga to become more resilient to external shocks and be inclusive of their descendants no matter where they currently live.

The Pā to Plate specialist growers are also recognised as mātauranga specialists or tohunga in their Māori-framed world of kin alliances and marae accountability. They are successfully contributing to and rebuilding the leadership capacity of their kāinga by modelling gardening practice.

As co-researchers, co-innovators and gardeners, and alongside their communities, they are shaping the directions of $P\bar{a}$ to Plate to strengthen the connections between:

- kāinga (the kin community);
- kai (food produce sourced from the same soils their ancestors once gardened); and
- korero (narratives of the ancestral landscapes where foods originate, and stories of the people, the gardeners and the foods).

As a cohort, these tohunga/specialists regularly meet to share, to model and to develop their mātauranga-centred gardening skills, which are innovatively supported by 21st century technology (as

well as some 'museum pieces of machinery' as one gardener described of his equipment!). The latest phase of Pā to Plate is focussing on how best to distribute kai and kōrero to those living further afield beyond their kāinga cluster districts. We are focusing on this, as well as maintaining ongoing local kāinga whānau support.

Extending beyond marae/kāinga has thrown up a whole new set of challenges and opportunities to which the team has now begun modelling, drawing on lessons already uncovered through the course of five to six years of intensive mahi, research and pilot implementation.

Another goal is to template Pā to Plate and eventually grow it from its current Tai Tokerau pilot stage into a nationwide mātauranga-aligned operational value chain. Success will be further realised when meaningful kāinga production and distribution has been operationally networked throughout the nation, directly linking descendants (local, district and distant) to their kāinga through kai and kōrero.

Background: Some Context to Success

Pā to Plate (P2P) is a socio-economic enterprise and a micro-market local produce model established in Tai Tokerau (Northland). It supports and networks new and established kāinga (marae-community/hau kāinga)-based growers to deliver to descendants at home and away. P2P has become a vehicle to reinvigorate marae-community mahinga kai/māra efforts, rebuilding and sharing gardening skills, together with customary knowledge of ancestral landscapes.

Pā to Plate aims to be a collective of growers that sells vegetables, fruits and processed foods. It also aims to fulfil other aspects of the value chain broadly including marketing, distributing and employment. As reported earlier (Kawharu, Tapsell and Tane, July 2022), Pā to Plate has three target groups:

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

Pā to Plate works against the tide of the 'economy of convenience'. It prioritises meaningful connection of descendants to their source communities and landscapes, through hau kāinga-grown produce and nutrition. Pā to Plate builds on a growing awareness amongst consumers not only of the importance of food traceability and origins, but also the ethical production of kai (produce and nutrition) and associated labour. Framed by kōrero (narratives), Pā to Plate offers Māori living away from home – urban diaspora – a meaningful pathway of reconnection to their hau kāinga relations, to their whenua (soils, waterways and local environment) and to their taonga (ancestrally prescribed resources).

Broadly, Pā to Plate seeks not only to help address challenges of food security for kāinga (broadly defined as tāngata + whenua + taonga; see Tapsell 2021), but also to help rebuild Māori community food sovereignty (Kawharu, 2019; Hutchings, 2015) throughout Tai Tokerau, and eventually beyond the region.

Circular Value Chain: how Pā to Plate marks itself out from other Indigenous food producers

The Pā to Plate enterprise is a kin community, collective-based, cultural circular value chain (Kawharu, 2019: 256) as illustrated in Figure 1.

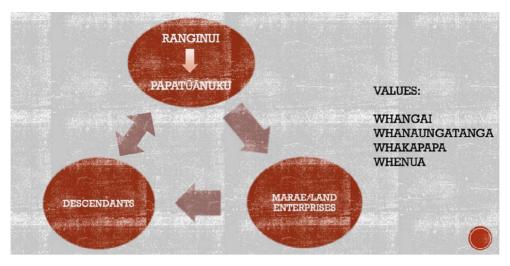


Figure 1 Community value chain aspects of Pā to Plate.

Pā to Plate sets itself apart from any other similar Indigenous food enterprise in two major ways:

- 1. Descendants (of ancestral Māori land) are both suppliers and target consumers, each supporting the other in a continuous cycle, energised by kin-accountability or whakapapa, on three levels. As shown in Figure 2, the three levels are locally-resident (hau kāinga or marae/local P2P1); the wider cluster of kāinga in a water catchment district (rohe/district P2P2), but not maraeresident; and non-local urban-dwelling diaspora (taura/distant P2P3). Other Indigenous food operators are typically open market focussed, i.e., selling to the general public, either domestically or internationally. They also may include selling to their own people (similar to New Zealand (iwi/hapū-based) Māori food enterprises, for example, Kai Waho, Tohu Wines, Kaiora Honey, Taitokerau Honey and Manawa Honey, reflecting how most Māori land trusts operate, generally leveraging off their forest or farm businesses. In contrast, Pā to Plate is primarily a hau kāinga-driven operation, growing produce on ancestral land specifically to reconnect and nourish descendants wherever they live. Thus, descendants living as either hau kāinga/local, rohe/district or taura/distant, uniquely connect through genealogical ties or whakapapa, to form Pā to Plate's kin-engaged target market.
- 2. The second unique point of difference is utilisation of k\u00f6rero or kin-framed origin narratives. P\u00e4 to Plate products are critical vehicles, each carrying a specific narrative that links t\u00e4ngata (descendants) to their whenua (ancestral landscapes) through the kai being consumed. In effect, the k\u00f6rero assists hau k\u00e4inga growers to reactivate their kai-chain, binding their diaspora to home marae by (re)building and supporting the re-establishment of cultural, historical and horticultural knowledge. When the business grows, we plan to build simple mechanisms whereby descendants can 'add' to the growing knowledge base as it circulates in the economy with the

kai/produce (e.g., supplementary narrative labels, small pamphlets, QR code links to website information pages). Additions can be through blogs, social media, face to face and other forums.

Pā to Plate therefore brings together kāinga ("pā", i.e., the multi-dispersed people, hau kāinga/locally P2P1; rohe/wider district P2P2; and taura/at distance P2P3) through nourishment and kin-identity affirmation as provided by kai and kōrero.

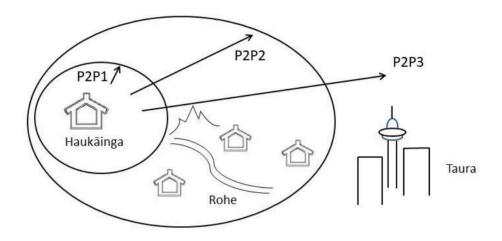


Figure 2 The three markets served by Pā to Plate descendant suppliers.

Report Scope

Our contract with Our Land & Water asked us to report on indicators of success "e.g. the number of Pā to Plate growers and consumers; an analysis of comments (social media); and the number of downloads of Pā to Plate reports and articles."

Given that Pā to Plate has three distinct foci, which includes two social goals and one commercial goal across three descendant categories (local, district, distant), and that we are building towards the commercial scale-up that is required for successful market participation, these measurables do not adequately capture success as identified by the Pā to Plate team of specialist growers and researchers. We will instead broaden our focus and discuss success from a Māori values proposition.

Pā to Plate Development

Since 2016 Pā to Plate has connected and supported a still growing network of nine kāinga growers across Tai Tokerau between the Bay of Islands region in the east and Hokianga in the west.



Figure 3 Location of Kāinga growers involved in Pā to Plate

In 2019, Pā to Plate tested some market assumptions (e.g., consumer demand, logistics, quality production and readiness of vegetables) by selling produce at a local Whangārei organic vegetable grocer.

In April 2020, we furthered the proof of concept at the Whangārei Growers Market by running our own stall; selling pumpkins, kūmara, kamokamo, greens and preserves from Tautoro, Karetu, Whirinaki and Oromahoe. Kai (produce) was sold, accompanied by source community narratives (kōrero) linking the produce to their ancestral districts' (kāinga) of origin.

In April 2022, our growers re-entered the farmers market – post COVID-19 interruption and associated production challenges – successfully selling their kai within a couple of hours (see Figure 4). Demand was high. In addition to the face-to-face market in Whangārei, P2P has also created online descendant market connections via its social media pages, predominantly Facebook, where it has a community of 1200 followers. This has also encouraged a community to establish their own social media Pā to Plate sister page (Pā to Plate Karetu).



Figure 4 Pā to Plate Stall, Whangārei Growers Market, April 2022.

And finally, Pā to Plate has begun designing and testing an online web-based platform in preparation to ultimately become an online market and directly reach its consumers. This platform www.pa2plate.com will be the main public interface particularly for descendants who live beyond the horizon of their marae communities and are seeking to access foods from their hau kāinga relations.

Through real-time information, customers will be able to order in season kai and learn what produce will become available and when (e.g., "coming soon"; "available from "x date").

Descendants can also learn basic information about their marae when they click on their marae icon. In addition, they can access food by type as another way to order.

 $P\bar{a}$ to Plate is now in its 3^{rd} year of growing. It is capturing the attention of additional growers who are also seeking to join the project. We discuss this further in our report.

What does success look like?

This report focusses on identifying the success factors that have so far contributed towards the growth of Pā to Plate. These can be broadly canvassed as including cultural principles or values and economic

factors. There are four broad cultural values that frame Pā to Plate (Kawharu 2019: 256), which best describe the successes that have been unfolding since 2016. These are:

- Whāngai: to feed, nourish, nurture, grow, raise;
- Whanaungatanga: family and kinship links;
- Whakapapa: genealogical connections, to lie flat, to layer (e.g., of knowledge); and
- Whenua: land, soils, waterways and local environment.

In effect, these four values provide a whāriki or woven mat or structure, on which we can lay out the numerous actions and engagements associated with Pā to Plate, underpinning the successful steps required to develop its social and commercial goals.

The integrative and complementary nature of Māori values means that the four identified cultural values often overlap, both in meaning and in application. Notwithstanding other Māori values, the Pā to Plate structure of whāngai, whanaungatanga, whakapapa and whenua neatly frame the multitude of Pā to Plate activities that have been taking place since inception. Key aspects under each cultural value are summarised in the following diagram:

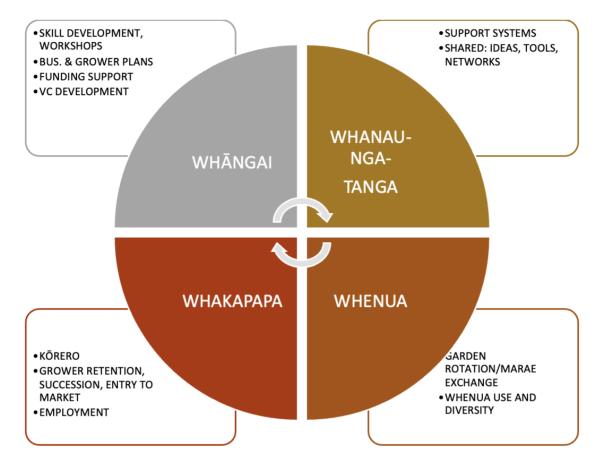


Figure 5 Matrix of cultural values underpinning $P\bar{a}$ to Plate success. VC = value chain.

Pā to Plate: success factors: What do these look like?

The remaining sections of this report discuss indicators of success for each of the four foundational values underpinning Pā to Plate. We start with Whāngai, for which we explore three components.

Whāngai 1: Skill Development and Processed Foods Workshops

Whāngai: to nurture, to grow, to foster, to raise, to nourish

Marae-community grower capacity building

'Growing the growers' is a cornerstone foundation of Pā to Plate. The success of Pā to Plate at the supply end begins with the growers: supporting them, nurturing them.

Over the last two years, Pā to Plate has regularly brought together experienced growers, new growers, descendants and researchers. Hui have been held across kāinga as scoping endeavours (to aid kaupapa alignment); to encourage kin-activated connectivity and network building (whakawhanaungatanga); to 13

share support and guidance (manaakitanga); and to transmit knowledge for upskilling (mātauranga) purposes.

A direct result of the time, energy and resource investment in kāinga has been an expanding pool of increasingly competent and confident Pā to Plate growers.

Since its beginning, Pā to Plate hui and kōrero have provided kin-aligned platforms for knowledge transmission, building confidence across both growers and their communities. Experts in mahinga kai have imparted wisdom relating to, for instance, soil tilling, whenua rejuvenation, hydration, weed and pest control, and other ideas on how to achieve optimum yields.

The re-emergence of practical mahinga kai knowledge, reconnected to layers of ancestral kāinga/maramataka-focussed knowledge — lunar, stellar and solar timing cycles based on environmentally nuanced cross-generational observations — is giving rise to new and innovative mātauranga/western knowledge combinations.

The growers have freely engaged in their own experimental (re) combinations of these two knowledge systems in their attempts to overcome external challenges unique to 21st century realities of maintaining mahinga kai (horticultural production) in isolated kāinga communities.

These realities are also challenges (e.g., labour shortages, climate unpredictability, soil erosion, introduced pests, weeds, poisons and pathogens, escalating costs of fuel, seeds, fertiliser, equipment and irrigation).

Figure 6 shows the integration of key components of the two systems that aid in the growing of hua (vegetables and fruits).

CUSTOMARY WESTERN KNOWLEDGE SYSTEMS KNOWLEDGE SYSTEMS MARAMATAKA GUIDED BY WEED & PEST CONTROL LUNAR, STELLAR & SOLAR HUA SOIL HYDRATION **PHASES** FOOD SOIL INPUTS, SUPPORTS **SEASONAL GROWTH ORGANISATION OF TILLING GARDENING** (TECHNIQUES E.G., **OBSERVATIONS OF AND** ORGANIC, PERMACULTURE, SIGNS OF NATURE COMPANION PLANTING, (INDICATOR SPECIES) SUCCESSION PLANTING) SIGNALING CYCLES

Figure 6 Two knowledge systems underpinning mahinga kai practice.





Figure 7 (L) Making Rourou, Suz Te Tai, Whirinaki, September 2022. Image: Paula Hohua.

Figure 8 (R) Paula Hohua demonstrating rourou making, Whirinaki, September 2022. Image: Paul Voigt

Preserves Workshops





Figure 9 (R) Making rewana. Image: Paula Hohua.

Figure 10 (L) Preserving fish. Image: Maria Barnes.

Over the 2022 winter, growers launched a kai workshop initiative, meeting most weeks through the autumn and winter months to share food preservation techniques. This series of workshops in Whirinaki aimed at (re)learning food preservation knowledge (pickling vegetables, jamming fruits, preserving seafood (toroi).

Growers also engaged in making food baskets rourou/kono/pāro (Figures 7, 8 and 9). Customarily, food preservation was an important technique that not only extended food shelf-life, but also provisioned kāinga with essential probiotics through winter months. Surplus preserves also became important trade items in the Tai Tokerau customary koha economy. These were often exchanged and/or gifted amongst whānau and across marae communities, especially in times of life crisis (tangihanga).

Customary kai production and exchange in accordance with a koha economy, but using contemporary techniques, is an important step to the re-establishment of indigenous food security and sovereignty across Aotearoa / New Zealand. The current economic pressures (high interest rates, inflation etc.) within already impoverished rural Māori communities on top of the poverty being experienced by their urban located descendants only heightens the critical importance of developing a complementary, koha-driven economy based on kin reconnection. The preserves workshops directly contribute to these kaupapa.

There is also a commercial imperative in pursuing learning and development for preserved foods. The sale of marae-sourced processed foods into a commercial market has already been tested (via the farmers market in Whangārei) and was very popular, both amongst Māori and Pākehā. Customers searched out and purchased chutneys, preserves and jams that were on offer at the Pā to Plate stall. Backed up by previous data collection, the latest observations appear to indicate willingness by customers to pay higher margins for marae-sourced preserves and fresh foods than for non-sourced or non-identified preserves that did not have narratives. Additionally, processed foods offer logistical opportunities in transportation to market, compared to fresh produce which has greater volume, can be more easily damaged or bruised, and may have limited shelf-life.

In the longer term, growers are keen to explore opportunities to combine customary foods with produce already circulating in the current food system. The development of new recipes by applying locally sourced mātauranga to the processed foods range is another exciting opportunity. These ideas have been emerging naturally through a nurturing and co-learning environment.

COVID-19

In dealing with meeting restrictions due to COVID-19, the Pā to Plate team have also integrated real time hui with digital platforms of meeting, and have enabled an ever widening, kin-prescribed network of support, as well as seed, vegetable, knowledge and information exchange along with the continued growth and development of Pā to Plate kaupapa. The COVID adaptation to digital networking alongside ā-kanohi hui (in person) is positively assisting kāinga and their growers to balance the two knowledge systems (mātauranga and western) for best outcomes to help grow both new and customary crops to their full potential, helping also to deal with external challenges not least climate change (droughts and flooding).

Whāngai 2: Business Plan, Grower Plans and Development

Another aspect of developing success in the Pā to Plate venture is the creation of individualised grower plans. These are operationally guided by an overarching business plan, which additionally guides those growers who seek to collectively participate in commercial enterprise. In 2020, during its early stages, the Pā to Plate research team embarked on a business lean canvas exercise (business idea planning tool) (Maurya, 2012), which helped identify commercial enterprise goals (as well as identify problems, solutions, unique proposition, customer segments, existing alternatives, high level concepts, early adopters, cost structures, among other things) to which growers could aspire. These are still being worked on, but the exercise include identifying success measures such as:

• The number of marae suppliers (four after year 1, seven at year 2, ten at year 3)

- The number of orders (both volume and value)
- The number of descendant subscribers, e.g., 1200 on Pā to Plate FB page at year 1, 1500 at year 2, 2000 at year 3
- Engagement of the 97% of respondents (n=200) in survey that said they would buy Pa to Plate food within 5 years
- Achieving a reduction of cost per order
- Descendant satisfaction score (Net Promoter Score NPS)
- Supplier satisfaction score (NPS)
- Financial sustainability (net profit and the ability to reinvest in product and other social enterprise, giving back to the community koha economy).

Many of these indicators may operate in any similar self-sustaining business. They are conventional business success indicators. However, Pā to Plate is not conventional insofar as it is not purely profit-driven, and these indicators therefore may not fully apply. However, they provide proxy benchmarks that we believe could be useful starting points of measuring. They would need further discussion with the growers, and possible modification.

Other indicators to be developed include measuring success in cultural terms, not least operationalising a koha-based economy of kin-accountability. For example, these could include exchanges of goods and services beyond any monetary valuation, especially if deepening knowledge of whenua and kāinga is a result of participating in Pā to Plate, or if the venture is measurably strengthening whanaungatanga/kinship and whakapapa connections, knowledge and understanding.

Similarly, for the development of new connections or reconnecting with marae, in terms of the foods themselves, success might be measured in terms of new healthy food habits being fostered through the purchase of whole foods from marae.

There are other markers of success yet to be determined through a collaborative process of engaging growers and establishing what they seek. These will also likely emerge once Pā to Plate has been tested in the market after an initial period where we can also assess what has worked well or otherwise.

The ultimate success of the commercial aspects of Pā to Plate will be the attainment of a balanced mix of economic and cultural goals and outputs, which is a hallmark of many Indigenous entrepreneurial ventures. The start points of Indigenous entrepreneurship differ to conventional or more profit-focussed enterprises and are often tied to ideas about strengthening kin-connections with, or reclaiming, ancestral land, addressing historical loss, and rebuilding culture and identity (Kawharu and Tapsell, 2019, Dana and Anderson, 2008).



Figure 11 Paula Hohua. "We can change the way we think about kai. Think of it as having a source."

As part of the process of moving towards commercialisation, a number of growers are formalising their approach to gardening. This includes integrating grower plans into their mahi. These plans (broadly) set out the range and anticipated yields of their crops and anticipated harvest periods. In review, these plans appear to indicate the (re) emergence of three grower-specialist or tohunga skillsets, which are anchored in mātauranga, but are being innovatively applied for wider cultural and economic benefit. Closer investigation of this inter-relationship between three specialist tohunga skillsets are currently underway and will be more fully explored and the findings will be published in the near future.

Whāngai 3: Funding support to growers

Over the past three years, the Pā to Plate project team has applied for small grants and has received in kind investment. Paul Voigt has spearheaded much of this work. Pā to Plate has successfully redistributed nearly \$100,000 across seven marae-communities for infrastructure, resources, logistics, upskilling, and education. The successful receipt of funding from external agencies such as the Ministry of Social Development and Foundation North is recognition of the potential of Pā to Plate in relation to on-the-ground developments already underway. Seed funding has been an important starter to enable some of the first operational initiatives of Pā to Plate to get under way and to support the growers in building their enterprises.



Figure 12 Waima gardens, Pirikotaha.

Whāngai 4: Value Chain Development

A fourth aspect of whāngai/nurturing growth concerns value chain development for the growers who are interested in increasing yield and participating in the commercially-driven aspects of Pā to Plate. It has taken a lot longer than expected to get to this stage due to limited capacity, other priorities of gardeners and COVID-19. We are now, however, at the point where gardener specialists are networking, supporting each other technically, swapping seeds and sharing knowledge as discussed throughout this report. This network is principally built on the foundation of the four values already identified (whāngai, whanaungatanga, whakapapa and whenua), but in this case it is genealogical: whakapapa – underpinned by a sense of relational accountability or whanaungatanga, which is collectively motivating and maintaining grower inter-engagement. This operationalizing of kinship has assisted the scaling up of yields and reliability, which is usefully preparing the growers for the next step of commercial enterprise development (as summarized in Figure 13).

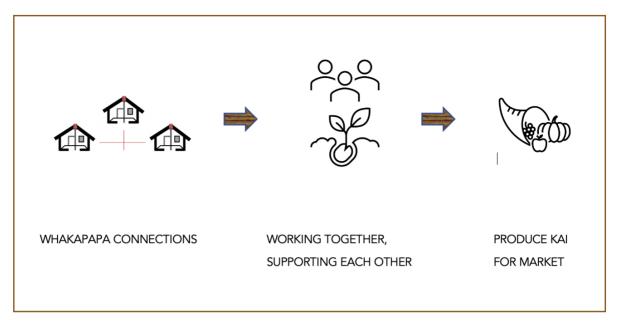


Figure 13 Whakapapa as an enabler in Whāngai in the pursuit of Market goals.

From a tikanga perspective, underpinning success elements of value chain development are whakapapa and whanaungatanga. These mirror what economic writers such as Galbraith and Kaye (1986), Goldman (1995), and Dunning (2003) have long discussed, regarding the value of relational alliances, reciprocity, trust and sustainable coalitions, and moving from a hierarchical capitalist system towards a system built on alliance capitalism. These are broad topics, but the point to emphasize is the high value placed on relationships within the marae context and within Māori thinking more generally. This means Pā to Plate is specifically geared towards its own Indigenous people at a kin-level of accountability, thus delivering to a target market, where kin-relationships — whakapapa and whanaungatanga — are critical components of Pā to Plate's developing value chain. They provide unique, competitive advantages and will potentially drive Pā to Plate's success at all phases of its value chain development and progression. Examples of how they work include:

- Support given to set up workshops run by whanaunga (to help build capacity in preparation for participation in commercial operation and the Value Chain);
- Seeds exchanged between whanaunga;
- Knowledge and skills broadened and deepened between whanaunga.

Whanaungatanga 1: Support systems

Whanaungatanga: family and kinship links

Whanaungatanga is a catalyst for success in Pā to Plate, as discussed in the previous section. Whanaungatanga is the amalgam and strength of whakapapa ties through descent and kinship. It's at its naturally strongest amongst close familial groups, but it can easily be fostered amongst wider groups of related or non-related members with common interests or purposes.

In Pā to Plate, whanaungatanga works as a support system in garden preparation, seed raising, various other co-learning practices, harvesting and in problem solving. We highlight an example of problem solving below in relation to garden rotation.

Much of the learning has been occurring within a whanaungatanga cycle, between elders and young people, or between pakeke (adults) and young people/other pakeke, between members of the same marae or of different marae. Learning is a two-way affair.



Figure 14 (L) Introducing new foods to marae kai - dehydrating fruits. Niwa Rawiri preparing fruits. Photo and text: Maria Barnes.

Figure 15 (R) Teaching younger generations how to raise seeds. Photo and text: Maria Barnes.

Whanaungatanga is a deeply embedded value. The Pā to Plate project uncovered the critical importance that whanaungatanga represents to grower specialists and their aspirations to feed all descendants, no matter where they live today.



Figure 16 (L) Whanaungatanga in our Mahinga Kai - Kumara Harvest. Photo and text: Maria Barnes.

Whanaungatanga has become a tangible way of adding kin-framed value to $P\bar{a}$ to Plate with an economically measurable edge. It is the catalyst by which the growers are expanding beyond local garden production to a wider food systems and food sovereignty initiative. In order for $P\bar{a}$ to Plate to be successful it needs to mirror and reflect the values that represent the source $k\bar{a}$ inga communities ($t\bar{a}$ ngata/descendants + whenua/ancestral soils + tanga/resources and treasured belongings) and their grower specialists, or tohunga.



Figure 17 Grant Allpress whānau garden, Matawaia.

Whanaungatanga may not always work well, however, at a community enterprise scale. As reported on similar Māori land and sustainability issues in Northland (Kawharu, 2018, p.28): "Whanaungatanga may also be an impediment within an operating (organisation/entity) environment if and where roles are not clearly defined, and skills are lacking." This might include not being alert to opportunity, which is a critical element of entrepreneurial behaviour. Some sustainable development studies conducted by the James Henare Māori Research Centre in the 1990s reported on internal decision-making systems (e.g., within marae communities) as being slow to react to commercial opportunities (then).

While these circumstances or leadership systems are not necessarily present today, and certainly not for all marae, whanaungatanga is still the central pillar of marae communities. As explained by Tapsell (2021), the extent to which marae committees or other hapū organisations (e.g., land trusts) influence the growth and development of their whenua is an important variable for each community's consideration. Some committees may help or hinder progress if mahinga kai are to be developed on behalf of a marae community. This is a reflection of the leadership history and likely vacuum that has resulted out of 180-plus years of colonisation (lbid). The major difference between these circumstances and those of Pā to Plate is that the Pā to Plate growers are all whānau scale, i.e., not hapū or iwi. Being micro level, they are not encumbered by iwi or hapū politics or the contested space of multiply-owned land that may be evident in these larger scale entities.

The politics of whanaungatanga, or more accurately, the politics of descent factionalisms, may override local community leadership and splinter marae and hapū stability (lbid). Interests are often identifiable by descent lines, and as one kaumātua described, "descent divides, but kinship or whanaungatanga unites". But descent factionalism is also evident at marae levels as well. This may also intensify when there are competing interests over limited (land) resources and questions arise (in Māori land trusts, for example) such as what to do with the land, even if there is general agreement to transition into, for example, horticulture. We found this to be the case in the early stages of discussions with a Māori land trust that was interested in horticulture and in the goals of Pā to Plate (discussed further under 'Whenua: to the future' below), but there were numerous cultural and governance issues that first needed to be resolved before it could consider them.

For now, the mana or power of success so far with the early adopters of the Pā to Plate kāinga kai and kōrero ethic is whanaungatanga, which is successfully operating at the whānau level within marae communities. And to reiterate, we have also identified that an initial success of Pā to Plate from the growers' perspective is directly associated with the project not being scaled to or organised at a hapū or iwi level. This may change later, but for now Pā to Plate's success is an outcome of it being a microeconomy, marae-based, food enterprise.

Food security: Feeding whānau first

Directly related to food sovereignty is the desire of the Pā to Plate kaupapa to help address food security issues prevalent within Tai Tokerau kāinga. An important grower-defined success factor is the ability of kāinga to feed their own people ("feeding whānau first"). This above all else has been a



Figure 18 Pauline Tipene, Te Riingi Marae, December

recurring theme for growers. It also represents an obligation that growers feel to exercise manaakitanga towards the wider resident community, and then towards non-resident whānau. Indicators as they relate to food security include the volume of produce per season, the seed and tuber stock yield (held over off season), and the number of whānau households supplied.

Building food security is also aligned with Ministry of Social Development goals of supporting local community food initiatives, which itself was an important driver in the receipt of funding.

The success of Pā to Plate will be seen in the extent to which it helps to address the healthy food and affordable food needs of descendant consumers. It has long been known that purchasing both quality and healthy foods can be barriers to Māori families (Gorton, 2009, 85), and today with the

increasing costs of living, including increasing food costs when wages are not keeping up, the existing difficulties are even more acutely felt. Lower incomes can restrict families to cheaper, lower quality foods (concerning nutritional value) (UNICEF New Zealand, 2016; Parnell, Reid, Wilson, McKenzie, & Russell, 2001; Turrell, 1996), which in turn can negatively impact upon health outcomes as has been reported extensively elsewhere.

The circumstances for Māori, particularly the current lower socio-economic disparities that they face, and which are prevalent in each of the grower Northland communities, are not new. They are outcomes of historical inequities of justice, not least the disenfranchisement of communities (kāinga) from their descendants (tāngata), their lands (whenua), and their resources (taonga). The combined engines of colonization on kāinga/marae communities, resource extraction and labour exploitation, aiding destruction of biologically diverse waterways, wetlands, forests and grasslands to be replaced by

monocultural economies wherein kāinga were pushed to the margins, forced to survive in relative poverty inter-generationally (Tapsell 2021), has resulted in today's unprecedented social and environmental crisis that now directly impacts the communities involved in Pā to Plate, as well as communities much more widely throughout New Zealand. In Northland, these impacts have been felt for up to two hundred years since the first settlers came and which started when large hapū estates were lost to missionaries and others through "land transactions" in the pre-Tiriti/Treaty period (Kawharu, 2016).

While these are complex socio-economic issues, what can be said is that the health of Māori has declined significantly over a similar period when they lost control and access to resources that once sustained them as reflected across several indicators. In relation to lower socio-economic disparities and correlated poor health and poor nutrient foods being one contributing factor to the problem of complex needs, recent statistics tell us for example that in 2015, 47 percent of adult obesity statistics in New Zealand were Māori, which grew to 50.8% in 2020/2021; and Māori children have equivalently high rates of obesity (Ministry of Health, 2015, p. viii, p.19; Ministry of Health, 2021; Panelli & Tipa, 2009, p. 456). The prevalence of diabetes in Māori and Pacific populations is around three times higher than among other New Zealanders. Lower quality food and drink have been identified as risk factors to type 2 diabetes (amongst other factors), and again, the food choices may also be the outcome of limited choices and the historical implementation of policies and laws (Ministry of Health, 2015, p. viii; Romana, Law, Murphy, Morunga, Broadbent, 2022).

Research undertaken some time ago has also indicated that there has been a lack of knowledge and skills in areas such as healthy food, safe preparation, portion size, understanding nutrition, cooking and budgeting (Lanumata, Heta, Signal, Haretuku & Corrigan, 2008; Bowers, Carter, Gorton, Heta, Lanumata, Maddison, & Signal, 2009). In community contexts, marae regularly host gatherings that require catering large groups of people, often over numerous days. Limited budgets equate to limited healthy food choices, and quality can be sacrificed in favour of quantity (Panelli and Tipa, 2009, p. 457). Meat selection, for example, can be determined by price: cheaper, fattier cuts of meat are chosen over the more expensive leaner, high quality cuts. Food selection on the marae is also determined by what is standard or normal within that community. Food choices, selections, and meals will differ from marae to marae and from hui to hui at the same marae, but all marae communities involved in this mahi have emerged from inter-generational marginalisation and economic hardships. These hardships are the reasons why the Pā to Plate values are important. By focusing on whanau and whanaungatanga, i.e., collective effort, the opportunity for innovation lies in confronting challenges from a shared historical perspective. Pā to Plate actively promotes not only marae community access to high nutrition, locally sourced produce, but also re-empowers growers to provide kai and korero to their dispersed kainga, reconnecting all in the process.



Figure 19 Ripening tomatoes. Piripi and Maria Barnes' mahinga kai, Whirinaki. January 2022.



Figure 20 Piripi and Maria Barnes' mahinga kai, Whirinaki. January 2022.

Whanaungatanga 2: Shared ideas, shared tools, shared networks

Whanaungatanga or kinship has played out most strongly as a success factor in the last twelve months when growers were able to come together more easily (post COVID lock-down). The Pā to Plate workshops (particularly over winter 2022) discussed above have strengthened marae-originating ethics of whanaungatanga, utu (reciprocity) and manaakitanga across multiple communities. Food has become a medium to rebind kāinga together at marae outside of the context of life-crisis (tangihanga).

Kāinga are linked to each other through whakapapa. In the reciprocal exchanging of produce/seeds, or growing and preservation knowledge, kāinga are engaging in latent ancestral whanaungatanga connections as discussed throughout this report. Some whakapapa connections are over 13 generations old. Some have emerged from strategic alliances in the expansion of hapū throughout Tai Tokerau. Some have emerged from ritual marriages to bring communities together, while others might simply have been by-products of the interconnected whānau of Tai Tokerau.

The Pā to Plate network of growers is now an active group of support (manaakitanga), sharing resources, tips and labour. It is providing the template by which Pā to Plate could be activated nationwide.



Figure 21 Tene Rankin discussing hydration pipe ideas with Paul Tapsell and Paula Hohua. Whirinaki.

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An extension of the networking element of Pā to Plate is the development of its marae community clusters. These clusters are broadly geographical, but more importantly, they are also based on shared whakapapa. Current clusters are located in south Kaikohe and in Whirinaki. There are discussions on the inclusion of a third cluster of marae, each within close proximity and each of which share common ancestry. Activated by whakapapa, these marae have supported each other through hui for generations. Such clusters or rohe groupings under common whakapapa occur throughout the motu (see www.maorimaps.com) for examples). Re-establishing marae clusters will offer logistical support, particularly when it comes to moving produce from rural areas to urban centres like Whangārei or Auckland where the vast majority of descendants — consumers — now live. The proximity of growers within a cluster means that growers can cooperatively assist one another with practical tasks concerning labour and equipment as well. This is discussed further below under Whenua.

Whakapapa 1: Kōrero

Whakapapa: Genealogical connections, to lie flat, to layer (e.g., of knowledge)

While Pā to Plate has two social objectives and one commercial objective, all three are driven by the goals to strengthen connections between kāinga, kai and kōrero and to feed whānau first. Pā to Plate has become a forum to deepen the collective pool of narratives (kōrero) across multiple marae communities. In the numerous Pā to Plate hui, kāinga are relearning old stories concerning customary gardening, hunting, fishing and foraging sites (mahinga kai), recalling activities of ancestors near (such as in elders' childhood times) and remote (such as in early occupation times) in order to build ancestrally significant-place association with food. A key part of the deepening of kōrero is the internal capacity building of the kāinga narratives. Our communities are acutely aware of the cross-generational impacts that colonisation then urbanisation have had (and continues to have) on their customary knowledge base (Hutchings, 2015). The recurring Pā to Plate wānanga enables communities and our grower specialists to generate momentum on teaching their own people.

At the same time, our kāinga are making history — being part of a new generation (or historical layer) that adds to their community's kōrero or cross generational narrative of identity and belonging to their whenua (ancestral landscapes, waterways and associated environment). This layering of narratives is part of a longer-term success story that we will be communicating, utilising Pā to Plate as the vehicle. For instance, we will continue to profile growers, their landscapes/whenua/gardens and stories across web and media platforms as/when they desire. Part of this story-telling is sharing genealogically layered narratives, or kōrero, which bind all descendants — from hau kāinga living at home to those living in the wider rohe, and beyond in the cities — under a common ancestral identity while sharing kai that has

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originated out of their whenua. Wider consumers will also have an opportunity to experience indigenous-sourced produce or kai, while reading associated korero by which they might come to better understand the unique importance of tribal marae communities to our nation's future wellbeing.

A critical success factor of Pā to Plate is, therefore, the ability to effectively capture and disseminate kōrero of kai in relatable and in meaningful ways. In these respects, kai can become the medium to transmit kōrero across the kāinga boundaries to their non-local descendants. Currently this is done through booklets, basic web material, and social media posts.

Whakapapa 2: Grower retention, succession, and entry to market

The entire Pā to Plate value chain aims to be led by hau kāinga (marae-based) members.

Six years ago, the project began by identifying the interests and needs amongst the target market/target community, specifically, whether people wanted to obtain or purchase kai from their ancestral homelands and if so, what kai would they be interested in and at what cost level.

The second stage was then about building an enterprise around these general ideas. It concentrated on working with interested growers at their marae, identifying their own interests, skills and capacity, as well as supporting them where needed such as for capital infrastructure. This second stage has also involved co-developing ideas further for what Pā to Plate could be and what it could do from a grower perspective, all the while maintaining the focus on how to strengthen connections between kāinga, kai and kōrero through the food that they may produce.

A key challenge to the success of Pā to Plate is maintaining momentum and enthusiasm to grow and preserve food within the kāinga. Growing is energy and labour intensive. Even with constant support, growing food is a lifestyle that must often be supplemented with employment (to cover basic household costs – electricity, rent, mortgage etc.). A success indicator must therefore be the retention of growers – by enhancing the growers' livelihood (to support themselves).

It is envisioned that reintegrating streams of knowledge concerning growing, the environment, and preservation will have cross-generational benefit. The pinnacle of success will be if these practices become self-sustaining ventures that can be carried over to new growers and expanded beyond this generation. Whakapapa here applies not only to a new generation of growers and to leadership succession within whānau and marae, but also to knowledge succession. Measures of success will be time-bound. We are seeing the fruits of success now, as the photos throughout this report show, in the knowledge that is being imparted and shared formally and informally, and the bonds that are being

strengthened. Today's leaders are also leaving their legacy. Success will be seen tomorrow amongst future generations.



Figure 22 Mitai Matene's kamokamo.



Figure 23 Mitai Matene, Te Riingi Marae gardens, Tautoro, December 2021.

Descendant consumers are acutely aware of the loss of customary food sources such as foods from the ngāhere/forest and wai/waterways and are, therefore, keen to see them return to the food system. They also want to see foods that they remember from childhood days, from marae hui when growing up, or from Nan's kitchen, or from the gardens that once grew at the marae.

Others are keen to again see healthy foods that had once been part of whānau diets like root vegetables as well as other fresh fruits and vegetables.

Others again are interested in exploring the potential of new foods that are not traditionally known or grown but could grow well in a changing climate (for example, coffee such as shown to be the case in a Northland-based enterprise, honey, and Indigenous foods in exchanges with other Indigenous peoples).

The grower to descendant consumer links created through the provision of these foods would provide innumerable cultural, economic, educational and health benefits. Connecting whānau consumer to whānau grower through the whakapapa baseline of the Pā to Plate has significantly more meaning when the kai is from home compared to when kai is non-sourced (provenanced) or when kai has not been made from your own whānau.

In building an enterprise, we are aware also that we need to co-opt a team of people to lead the entrepreneurial vision and implementation of the kaupapa. Although the grower to consumer link is entirely whakapapa-focussed, (i.e., 'feeding whānau first' and 'connecting kāinga, kai and kōrero' being the two drivers of Pā to Plate), the 'we' in the team who have been developing Pā to Plate consists of individuals who do not whakapapa into the region. However, in following the Takarangi leadership model (Kawharu and Tapsell, 2019), we broadly combine the leadership of individuals with rangatiralike skills (e.g., offers an approach that has long-term vision setting in mind; considers the socio-economic well-being of community; is risk aware), tohunga-like skills (e.g., has professional skills; is risk aware); pōtiki-like skills (e.g., pushes boundaries; is a risk taker) and kaumātua-like skills (e.g., is risk adverse; is the careful minder and manager of cultural values; considers the wellbeing of community). This team is ultimately in service to the kāinga. The whakapapa relationship between hau kāinga growers and their descendant consumers: local, district and distant, and supported by external experts, underpins the Pā to Plate goal. It has successfully brought together a team, comprising a novel mix of skills, which is proving to be more than capable of pursuing the Pā to Plate entrepreneurial vision. It is not without its challenges. But with tikanga driving the kaupapa, most importantly, manaakitanga and kotahitanga, combined with a clear vision of what we are trying to do: connecting kāinga, kai and kōrero and feeding whānau first, we continue to problem-solve and build our pathway ahead.

Whakapapa 3: Employment

This is a critical aspect of Pā to Plate that requires long-term, cross generational strategic planning and leadership. Pā to Plate aims to employ descendants from marae in all phases of the value chain (e.g., gardening, logistics, marketing, IT).

Current accounting of resource distribution – tāngata, whenua, taonga – indicates a major imbalance, which requires a systemic overhaul if kāinga are to successfully initiate new modes of production for future benefit. The biggest challenge beyond accessing whenua is attracting home descendants to engage in kāinga-based employment and begin addressing the cross generational exodus of descendants due to colonisation.

A broader context for the kāinga involved in Pā to Plate is as reported elsewhere in literature. For instance, the post WWII migration of descendants to cities in and beyond New Zealand shores triagered a widespread depopulation of marae communities (Tapsell 2021). In subsequent decades, supporting infrastructure – schools, shops, health services – also closed and new generations of kāinga descendants were born and raised in the cities that were overflowing with employment opportunities and supporting education, health and housing services. In recent times, these populations now represent over 90 percent of Māori. Many have unwittingly become trapped in urban poverty. The pathway home to their marae communities has also become difficult (Kawharu, 2014, Tapsell, 2014, Williams 2015). Three or more generations distant, taura (descendants who left their ancestral marae) and hau kāinga have become strangers to one another. Recent initiatives like Maorimaps.com seek to bridge this gulf by providing taura seeking to find their way home a non-threatening reintroduction to their marae communities online (Kawharu and Tapsell 2019). But Maorimaps is one part of a complex network alongside other initiatives like Pā to Plate and the socio-cultural and employment opportunities that it aims to build. Provision of supporting services like schools, health providers and land on which to build new and support existing cross-generationally sustainable homes are integral as well. Pā to Plate may be a catalyst to help mobilize initiative and community rebuilding and strengthening in this broader complexity of socioeconomic need.

Labouring in our Pā to Plate gardens remains intensely challenging, but not insurmountable. Over the past growing season, our growers engaged in a number of innovative strategies to ensure successful garden management and harvesting, and distribution locally, to an urban-based market as well as on to the plates of urban living descendants. These addressed short, intensive periods of labour shortage.

In building a community of interested consumers, as well as strengthening whanaungatanga and importantly, a obtaining a short-term labour-force, a skilled mātauranga expert who needed help 33

harvesting his large kūmara garden ran a wānanga weekend in exchange for a ready-labour team. The transmission of mātauranga framed knowledge to the eager taura visiting the marae coincided with harvesting, thus provided experiential learning. Labour was also rewarded with each whānau representative taking back to the city a sack of produce.

As discussed at Whāngai 1, expertise has been readily shared amongst the expanding community of growers, between tuākana/teina and in mana-enhancing ways. Expertise sharing is more than capacity building of individuals. It is kāinga (community) building. It is network building. It is building the foundations of a Pā to Plate enterprising community. When you build the people and the(ir) vision, you



Figure 24 Tene Rankin's mini raised garden with pipe hydration system. Oromahoe.

build the potential and opportunity for new whanaunga to join because they see the possibilities.

Expertise has covered topics ranging from horticultural practices (e.g., soil tilling, whenua rejuvenation, hydration, weed and pest control, planting, best practices for growing, plant maintenance and protection, harvesting), customary knowledge informing planting and harvesting, and variations in practice customary knowledge in response to changing climatic and environmental conditions. Expertise has also covered processed foods and the making of flax food baskets through several workshops that have been held. Separately, there has been the transferring of tikanga values in growing as well. This is a large subject for another report, but we include it to highlight that the values remain

important today in how food is treated from the seeds through to the preparation of the ground, to how the gardens are maintained, what is grown where and when.

Then there have been other practical innovations and experimental 'can do' approaches to gardening that gardeners have trialled in their own mahinga kai to solve particular problems that they have faced. For example, in one case, one gardener came up with a method of storing harvested foods away from rodents by building a raised platform out of reach of possums or rats. This was similar to the old whata storage houses. Old barrels were also cut into half and used as small gardens, with a plastic pipe running down the sides with holes cut so that a water sprinkler system could be attached to it (photo, L).

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Information sharing has always been mindful that each person brings their own expertise which may be useful in some way to the general kaupapa of mahinga kai. This open-mindedness encourages sharing, recognises the mana and the leadership inherent in everyone, is based on manaakitanga, builds whanaungatanga and therefore also builds collective strength towards common purpose.

Whenua 1: Garden Rotation/Marae exchange

Whenua: land, soils, waterways, and local environment

A recent example of whanaungatanga working in practice is three gardeners from three marae coming together to work as a whānau group or 'cluster'. Based on their close whakapapa and close geographic proximity, the three often share ideas, challenges and issues with each other.

One challenge faced by a gardener is the Black Beetle pest that has come to damage and eat kūmara, making many of the crop unsuitable for the market. In response to the problem, the solution has been twofold: to retire the land from in-ground planting for a couple of seasons (i.e., starve the Beetle) and to move kūmara (and other root vegetable) gardens to one of the other marae lands.

This exchange is occurring for the first time this season. At the time of writing, gardens were being readied for planting (photo below). Additional benefits for the gardeners are that tools and labour are being shared, and the general overall load is lightened.

The 'mahi' is also enjoyed more because it is done together with whanaungatanga at the heart of effort. Special acknowledgement to Paul Voigt in this mahi here as well. He has also been instrumental in much of the networking, in addition to the funding applications, the brainstorming of ideas and being a friend on hand to many in the growing enterprise.



Figure 25 Preparing gardens at Pauline's whenua for Mitai, Pauline. October 2022. Image: Paul Voigt.

Whenua 2: To the future: Whenua use and diversity

Pā to Plate promotes whenua use diversity. While current Pā to Plate mahinga kai are on either marae adjacent lands, or whānau land blocks, early conversations aimed to explore with a Māori land trust their aspirations regarding produce-based endeavours. The intent here was to explore and leverage existing trust business infrastructure, and where it was their hope or aspiration, redirect some produce to shareholders and beneficiaries of the whenua (i.e., descendants), in addition to new diversified use opportunities. Despite our explorations with the ahu whenua trust, we became aware of general constraints to diversification. This included the difficulty to generate bank loans against Māori land and an unwillingness to expose ancestral lands as collateral, a generally conservative approach within the trust to expenditure beyond core existing business, and continued plans to stay with the status quo of beef and sheep farming with some pine forestry, i.e., traditional/conventional farm business of the trust. However, more positively, there was interest amongst trustees and amongst shareholders of the ideas of seeing farm produce becoming more easily available to shareholders and of the idea of diversification into horticulture. These were not new to the trust either. They had come up over several years prior to this project. The opportunity does lie there for both when the time is right.

Dairy, sheep and beef have been the mainstay for Māori land organisations for decades since the early twentieth century and in particular Apirana Ngata's (government) Māori land development schemes (Ngata, n.d.; Kawharu, 1977). Many Māori land organisations in general follow a standard business model, where whether it is meat or milk, all is sold for profit, and in a non-descendant open market (discussed above), and not necessarily driven primarily therefore by tikanga or marae-based values.

Māori involvement in the food sector is limited mainly to the production end of the value chain, that is agriculture, aquaculture and horticulture. The contribution of the Māori pastoral sector is estimated to be around at eight to ten percent of the national milk solids production and ten to 15 percent of national sheep and beef stock units (Kingi, 2013, p. 1989). Of those in horticulture, most are in monocultural endeavours such as avocado, viticulture, citrus, and kiwifruit.

Despite this initial experience with the Tai Tokerau Māori land trust, Pā to Plate is still interested in supporting ahu whenua and their shareholders in realising long standing aspirations of whenua diversification. Partial retirement of ahu whenua lands for the purposes of entering into a Pā to Plate system would indicate a broader shift from conventional food-chains toward a descendant focused one. We would deem any shift of this nature as a successful engagement in kāinga-focussed food security and sovereignty, and one that also responds to the climate challenges now facing whenua and tāngata.

Descendant access to whenua

Due to the commercial nature of ahuwhenua farming, shareholders and beneficiaries (i.e., descendants) are rarely able to consume produce derived from their own ancestral lands as discussed above. Further (save for the occasional field day), many ahuwhenua farms also must physically restrict access of descendants from these land blocks for health and safety purposes. Descendant reconnection to whenua is also inhibited by geographical distance.

Other constraints to local descendant consumer use of farm produce included costs and food standards related to home kill meat handling, consumer demand uncertainty, and perceived impacts to the trust's revenue. However, as discussed, the opportunities for local food system production are not insurmountable. The four values discussed throughout this report underpinning the vision of connecting kāinga, kai and kōrero may provide a pathway ahead for thinking about how to diversify whenua use and to enable whānau engagement within regulatory and tikanga boundaries.

Conclusion

This report has taken Pā to Plate's guiding central values of Whāngai, Whanaungatanga, Whakapapa and Whenua as key indicators by which success from a kāinga perspective can be measured. And within these values and practices are others such as manaakitanga – kindness, support, care for and consideration of others – as well as mana – its counterpart, or one's perspective, status, authority, influence, esteem and regard.

These values have guided social, economic and environmental behaviour in marae-communities for generations. They, among other customary values, were codes for survival.

The application of these values across time and generations has been impacted by a long tail of historical processes. These have stemmed from land alienation, kin community trauma and economic hardship, brought about by colonisation and ongoing government policies that have not accounted, nor allowed, for the expression of Māori values on Māori terms.

These values have structured the future focused socio-economic enterprise of Pā to Plate. Success is determined by how these values are applied across multiple marae-communities or hau kāinga and their descendant diaspora (locally-resident, district-resident and distant-located).

The vision of Pā to Plate is underpinned by growing the socio-economic sustainability of Tai Tokerau kāinga. At its heart, Pā to Plate is about rebuilding and strengthening kin-based food value chains to reestablish food sovereignty systems of Tai Tokerau marae-communities. Pā to Plate therefore contributes to a broader exercise of rangatiratanga in relation to kāinga, whenua and taonga (Article II) as aspired to in 1840 at the hui and signings of Te Tiriti o Waitangi (the Treaty of Waitangi) throughout Tai Tokerau and beyond.

As late as the 1970s, elders of Pā to Plate marae communities recalled small and large communal gardens and farms still operating. In time, non-Māori controlled local stores overtook customary food growing and distribution. But local stores became increasingly redundant as consumers gravitated to national and international supermarket chains based in urban centres. Panelli and Tipa (2009, p. 456) refer to the economic marginalisation of community food production through 'pseudo-food' manufacturing and supermarket chain distribution, directly impacting dietary and health outcomes of colonised indigenous populations.

In a context framed by significant increases to living costs and commodity inflation, growth in kāinga independence in the food space must be realistic. We always knew that Pā to Plate's six years of mahi, 38

research and operational engagement were ambitious in their scope, not least finding mātaurangaframed, novel ways to address food inequality issues three to six generations in the making. The challenges now are how to effectively measure and to promote success for such high level, historicallyentrenched, cross-generational development needs. Kaupapa like these take time given these complexities. Problem solving and being guided by whakapapa, whāngai, whanaungatanga and whenua will be key.

In the long term, success of any nationwide Pā to Plate venture will be dependent on achieving the requisite outcomes detailed in this report at the local kāinga level. Each Pā to Plate grower indirectly works against the flow of individualist pressure, tangibly reconnecting with other kāinga growers through produce, seed and knowledge exchange.

Each grower, by engaging in the customary ethic of koha or giving, in some small part, helps to alleviate food poverty. And supplementing koha that remains integral to the being of every grower, are the commercial aspirations of growers. Food sales pave a financial future pathway for growers as well.

The opportunity for descendants as consumers is to be nourished by the same soils that have nurtured generations of their families. This is the vision of Pā to Plate: strengthening the connections between kāinga, kai and kōrero.

A next goal is to expand Pā to Plate from its current Tai Tokerau pilot stage into a nationwide mātauranga-aligned operational value chain. This will require new streams of research and business development before such a vision might be fully realised. Success will be ultimately achieved when meaningful kāinga production and distribution becomes a whakapapa-framed operationally accountable network spanning the nation, directly linking descendants (local, district and distant) to their home kāinga through kai and kōrero.

Ko tēnei anō ngā mihi ki a koutou e Mitai, Paula, Maria, Piripi,
Rereata, Pauline, Tene, Suz, Grant, Sandra, Jared, Raaniera me a koutou nei whānau.

Nā koutou i hikitia, i whakanui i ēnei kaupapa hirahira

mō tātou katoa me ngā mokopuna kei te heke mai.

Kia ora mai tātou.

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