

REPORT FOR OUR LAND & WATER

TAUUTUTU:
WHITE PAPER

JOHN REID, MATTHEW ROUT, JAY WHITEHEAD & TE PUOHO KATENE

OUR LAND
AND WATER

Toitū te Whenua,
Tōiora te Wai

National
Science
Challenges



This white paper explores the principle and practice of Tauutuutu. Tauutuutu is an indigenous concept that places an ethical obligation on communities and enterprises to emphasise balance, reciprocity, and symbiosis in their social and environmental relationships. In the 40 years following European contact, and during early colonisation, Tauutuutu was the engine of rapid economic growth and capital accumulation across many hapū. From the late 19th century to the mid-20th century, Tauutuutu continued to play an important role in local subsistence economies and provided a ‘social welfare’ net for communities. Today, Tauutuutu ethics are still visible in the new class of land-based Māori enterprise characterised by successful land trusts, incorporations, and iwi corporations known nationally for their environmental leadership, social responsibility, innovation, and profitability.

Tauutuutu places emphasis on positive feedback processes and systemic interconnections between humans and their environment, which encourages land management approaches that attempt to rapidly adopt and utilise innovative technologies for sustainable production. This is illustrated throughout this paper via examples of Māori land-based enterprises that represent exemplar firms seeking to collaborate, diversify their land use, and achieve integration between different systems. There is a focus on value rather than volume, pursuing lower intensity production and the establishment of integrated value chains to premium markets. Emphasis is placed on sustainability, circular economics, and ecological restoration, leading to food-producing systems that greatly exceed regulatory demands. It is not claimed that these enterprises have fully achieved their environmental, economic, cultural, and social aspirations, however, the intension, vision, and innovation is present.

Tauutuutu principles are also driving the development of alternative and novel business models. There is a continual impetus amongst governors, to focus on processes to support the redistribution of financial and political capital from corporate centres to marae-centred communities. The result is not only strong marae influence on corporate activities, but also, in an economic sense, the continual flow of capital from centralised bodies to the periphery, supporting business development opportunities within owner-communities.

The broader extension of Tauutuutu ethics, principles, and modes of operating beyond Māori communities and to the country could see a significant and positive transformation in the way land

is managed and agri-food businesses operate. Tauutuutu is demonstrated to improve the governance and operation of value-chains through increasing trust, innovation, commitment, and connection to markets. It is also shown to raise employee wellbeing and retention, increase the fair distribution of economic benefit, and enhance the reputation and sustainability credentials with markets and regulators. Finally, Tauutuutu could assist New Zealand in meeting its international agreements and obligations associated with the environment, responsibility, fairness, and development.

However, there are several potential constraints on the broad extension of Tauutuutu beyond Māori communities including: worldview differences, race relations, agrifood industry conservatism, risk aversion, and heavy investments in built capital and infrastructure that make substantive shifts in production difficult. Despite these constraints there are also positives, with New Zealand land managers and food producers demonstrating a capacity to rapidly change and adapt to market shocks, a relatively high level of innovation at a farm scale, a history forming cooperatives to meet collective goals, and a strong tendency to the value of fairness. It is contended that an extension process using andragogy, or adult learning processes, when combined with the above characteristics of land managers, could facilitate the extension of Tauutuutu ethics, worldview, and behaviours. Future research and analysis could be undertaken to quantify the level of benefits that could accrue through the adoption of Tauutuutu principles.

Anyone travelling around the world notices that different cultures have their own cuisines, grow different foods using distinct techniques, and have different customs around the production, processing, and consumption of food. These differences are clear in the landscapes in which these cultures dwell, whether it's the terraced paddy fields in Asia or pastoral farming across Australasia. Within New Zealand, our patterns of land use largely reflect the customs, beliefs, and practices of the dominant Anglo settler culture – typically representing the land use patterns of the United Kingdom. However, over time other land use patterns have emerged in the warmer temperate conditions of New Zealand that reflect the Mediterranean cultures of Europe, represented most iconically in our wine regions. Along with distinct land use patterns and processes of production, cultures also bring with them their own systems for coordinating chains of production and processing activity, and for exchanging the goods produced.

Prior to Anglo colonisation, Māori too had their own distinct land-use patterns and economic systems of production, processing, and distribution. Drawing on technology from their original homes in Polynesia, Māori developed extensive networks of horticultural production on fertile lands, while managing the remaining extensive ecological systems to forage, hunt, fish, and gather a range of foods. The goods produced and processed were exchanged through a range of methods within and between whānau and hapū. On early European contact, these systems of land management and production remained, however, new technologies were brought into the Māori cultural frame, including new crop varieties, animals, growing techniques, tools, processing methods, and systems of transport. Māori rapidly brought these new technologies into their cultural frame and expanded their economic system to connect with international markets.

However, the Māori economic system and approach to land use management was rapidly pushed aside through the process of colonisation. Remnants of these systems persisted in the kainga (traditional village areas) and surrounding Māori land, remaining strong until the mid-20th century. Throughout this period, central government schemes attempted to introduce, or impose, alternative methods of managing land and coordinating productive activity. The results were mixed and not lasting; however, subsequent changes to Māori land regulations combined with declining racial discrimination and the emergence of treaty settlement processes led to the development of new class of Māori enterprise where Māori could access capital and exercise greater decision-making autonomy and leadership. This new class of enterprise is characterised by the successful

land trusts, incorporations, and iwi corporations known nationally for their environmental leadership, social responsibility, innovation, and profitability.

Fundamentally, these are family- or kin-owned enterprises (whether at whānau, hapū, or iwi scales) operating within parameters set to some extent by their indigenous owners, but also systemic structures (e.g., markets, supply chains, conformance systems, and regulations) beyond the control of owners. The parameters set by indigenous owners emphasise the need for productive activity that operates within a range of indigenous values. These values, from a Western cultural perspective, are thought to embrace environmental stewardship, social responsibility, intergenerational wealth creation, and cultural revitalisation – essentially a quadruple bottomline approach. While to some extent this is true, the indigenous values that these enterprises operate from are based on a much deeper and more profound foundation, a foundation that also underpinned the traditional land-management patterns and economic systems of production, processing, and distribution. This white paper is a discussion of this deeper foundation, represented by the practice and concept of Tauutuutu.

While not often referred to explicitly as a concept by Māori land enterprises, it can be understood as an underpinning axiom that guides and informs cultural practices and ways-of-knowing that inform the decisions that these entities make. From decisions of how land and waters are managed and related to, through to how relationships are developed and formed in creation of supply chains, Tauutuutu provides a framework that guides decision-making in almost every sphere of business. In five sections this paper explores Tauutuutu and its evolution from pre-European contact through to its current and future applications. These sections are as follows:

1. The traditional role and historic application of Tauutuutu;
2. The role of tauutuutu in contemporary Māori businesses and its application in supporting holistic land management;
3. The barriers to uptake of Tauutuutu beyond the Māori land-based economic sectors; and
4. The national and international opportunities that come with adopting a Tauutuutu approach to land management and economy.

A brief introduction to each section is outlined below.

Section one explains that Tauutuutu was the fundamental framework of exchange in traditional Māori society. It was an ongoing cycle of mutually-beneficial reciprocal exchanges. In exchanges between humans, Tauutuutu was driven by mana (prestige, authority, influence), with each

exchange creating and reinforcing social obligations. The return exchange was generally delayed, and had to be of equal or greater value, creating a see-sawing web of obligations that held groups together and drove the economy. There was also a fundamental need to maintain a form of balance, or more accurately a dynamic equilibrium as the exchanges were ongoing and escalating. Tauutuutu not only guided exchanges between humans but also with interactions between humans and nature. These forms of exchanges were guided by mauri (an interactive life force that animates all of nature, including humans). There was a need to ensure that all exchanges maintained or grew the mauri of both parties. In traditional Māori society Tauutuutu ensured social and environmental interactions were generally mutually beneficial. It was not a rigid framework, however, but rather had an inherent flexibility that saw the levels of obligation change depending on the context. This was a key factor in shaping the initial success of Māori in their commerce with Europeans, and up until the mid-19th century the Māori economy was largely guided by Tauutuutu, even as it transformed to adopt the new practices, technologies, flora, and fauna brought by Europeans. It was only after significant land loss and the growing demographic, and resultant political and economic, dominance of the settlers that Māori became largely integrated into the settler economy, though Tauutuutu remained as a guiding influence amongst Māori into the 20th century.

Section two looks at how Tauutuutu plays a key role in contemporary contexts. It examines how it shapes production and land management processes across Māori land-based businesses, generating a range of reciprocating benefits. Tauutuutu encourages collaborative environmental management, with many Māori farms forming collective land management networks that deliver ecosystem, catchment, and habitat level management. Tauutuutu also guides land use patterns away from monocropping towards more environmentally sustainable mosaics. Māori agribusinesses tend to exceed regulations in terms of monitoring, requirements, and outcomes, informed by the underpinning ethics of Tauutuutu. Contemporary Māori organisational governance and business structures are also partly shaped by Tauutuutu, with many seeking to decentralise their structures and increase member participation. Sophisticated and networked value chains also have much in common with Tauutuutu. Many Māori agribusiness can be seen to implement traditional practices in value chain formation. Likewise, customer relations, industry collaboration, and partner formation all have a lot in common with the principles of Tauutuutu, informing how Māori agribusinesses connect with customers, form joint partnerships, and work across their sector. Section two then pivots to look at how Tauutuutu is applied to understanding the land management changes required at catchment, regional, and national scales to achieve sustainable outcomes. It argues that these changes should be calibrated for different contexts

rather than applied universally, and while some training, guidance, support, and legislative and regulatory encouragement from the regional and national level would be needed it should also be conducted in a collaborative, localised, non-hierarchical manner.

Section three explores the potential barriers to the uptake of Tauutuutu. First it discusses the ethical issues, noting the potential for loss of control of Māori culture and the misapplication of Tauutuutu, concluding that to minimise risk: Māori need to be involved in the decision-making process from the outset, with significant input and authority; Māori need to benefit from the approach; and it needs to be respectful of the concept's original purpose and meaning. Then it examines the role of worldview, particularly the core presuppositions of individualism, rationalism, dualism, and progressivism of the Western worldview in comparison to the Māori worldview, noting that while these are problematic many of these presuppositions have modified in recent decades. It also examines the problems posed by post-colonial relationships between Māori and the wider settler culture, looking at the institutional and individual racism and the ways in which settler culture views key factors such as Māori commercial ability and Māori traditional knowledge, noting that these are issues that need addressing if Tauutuutu is to be widely implemented. After this it outlines the problems associated with andragogy, or adult learning, noting that there some important prerequisites and methods to ensure adult learning is successful. Then it explores the structural constraints, including the inertia that comes with built capital, the demographic constraints that could hamper uptake, and the potential issues with agriculture as a risk averse sector. While these all pose some hurdles, across each there is also considerable potential for overcoming or mitigating these barriers. Finally, it explores the nature of risk aversion in the agricultural sector both at a sector and individual farm level, noting that while the sector as a whole is relatively averse to risk, some individual farmers are more open to risk.

In section four, the white paper looks at the opportunities that come with adopting Tauutuutu by examining relevant national and international proxies or analogues. First it looks at international examples of reciprocity in business exchange, and while it is often described as a quid pro quo relationship in collectivist cultures there are social dimensions that are similar to Tauutuutu that show a range of benefits in contemporary business contexts particularly as a means of building premium value chains and trade relationships. A number of significant benefits were determined through the application of Tauutuutu driven exchange: market access; employee wellbeing and retention; innovation and strategic direction; and reputation and sustainability credentials. A number of international analogues to the Tauutuutu exchange framework, including 'common but

differentiated responsibility and respective capabilities’ agreements, the United Nations Sustainable Development Goals, as well a range of regional, and global market access requirements such as the European ‘Green Deal’. Within New Zealand the way successive governments have favoured collaborative and voluntarist approaches to promoting social and environmental good rather than implementing legislative requirements at a national level is also identified as having resonance with Tautuutu, as are the growing number of social procurement arrangements occurring across New Zealand.

Tauutuutu as a framework of exchange

Tauutuutu was the fundamental framework of exchange within traditional Māori society. Often called ‘gift exchange’ by anthropologists this label does not provide the full scope or nuance of Tauutuutu.¹ **Tauutuutu was a form of reciprocal exchange.** More fully, it was an ongoing cycle of mutually-beneficial reciprocal exchanges. Tauutuutu, in an etymological sense, is constructed of two core elements; the prefix ‘tau-’ indicates reciprocal action, whilst ‘utu’ is commonly translated as price, cost, payment, or even revenge. The repetition of utu further emphasises the reciprocal nature of exchange inherent within the phrase.

At its centre, three key concepts underpin Tauutuutu and its applicability to social and environmental value exchange. These concepts are consistent across all observable manifestations of Tauutuutu in traditional practices and contemporary interactions. The core concepts are as follows:

- Whakapapa
- Obligation
- Escalation

Whakapapa

“Ko au ko te awa ko te awa ko au” – I am the river, and the river is me

Tauutuutu is founded in whakapapa – the interrelatedness of all things. From the originating atua (supernatural beings) Ranginui (sky father) and Papatūānuku (earth mother), the lineage of te ira tangata – the human essence – is intertwined with the natural world that surrounds us. Of principle recognition are the denizens of Tāne (terrestrial), Tangaroa (ocean), Maru (freshwater) and Haumietiketike (earth-bound). But this lineage extends to all descendants to Ranginui and Papatūānuku and includes more abstract realms such as that of Tāwhirimātea (weather and climate), or less charismatic realms like that of Punga (insects).

Of further note, humanity’s lineage is often perceived as junior to those of other atua, and as such the deferral to seniority is often seen as implicit in the genealogical relationship with the natural world. This shared lineage forms the tapestry of human interaction – between each other, and with the natural world. It is the source of the innate drive towards kaitiakitanga, or guardianship – which is seen, not as an individual ethical consideration, but a community’s or society’s moral imperative.

Obligation

Value not only comes from different places; it manifests in different ways. Value creation within a Māori worldview occurs across a continuum. At one end, activities generate absolute value accretion in a more readily measurable fashion (such as increases in material conditions or living standards, available resources, or political positioning). The other end of the continuum is more difficult to measure. Obligation-driven value creation is a consideration of the cultural consequences of a counterfactual status of the activity not occurring. This could manifest as the risk of not fulfilling manaakitanga roles as mana whenua, or the failure to have appropriate regard to obligations as kaitiaki. Not unlike modern-day considerations of risk mitigation strategies, obligation-driven value creation is the mitigation of the cultural value deficit incurred if tasks or activities do not take place.

Escalation

A fundamental concept underpinning Tauutuutu is that of escalation. Whilst many external observers loosely translate Tauutuutu as “balanced exchange” or even revenge, this does not capture this critical element that is so prescient in early accounts of societal and economic interactions of Māori. Whether the occasion that calls for reciprocal exchange is jubilant or calamitous, these exchanges are characterised by an ever increasing of stakes. In the positive, this typically manifested in feasts and gifts; in the negative, insults and slights would escalate to skirmishes and outright intertribal warfare. The requirement to reciprocate was so great that the actors would often take great pains to meet that obligation, including with precious taonga; pounamu, prized cloaks, and in some occasions, land.

Value exchange and the concept of social currencies

Traditional Māori society had two key ‘social currencies’: mana and mauri. These two cosmic forces provided the key mediums of exchange through which Tauutuutu occurred. It is important to note that whilst the term ‘currency’ is used here, the depth, nuance, and ubiquity of mana and mauri as value mediums exceeds modern considerations of currency.

Mana is generally defined as the authority, dignity or prestige of an individual or a group.

Many treatises have explored mana, yet the concept remains complex in its interpretation. One school of thought acknowledges two ‘sources’ of mana; intrinsic, that is, inherited through one’s lineage, and extrinsic; the level of which accretes or erodes based on the direct and indirect actions of an individual or their social unit (whānau, hapū, or iwi). Extrinsic mana is gained when leaders

and communities create and maintain mutually-beneficial relationships. In this way, mana generated a competitive yet (generally) mutually-beneficial dynamic of escalation in Māori society.

When the actors in a value exchange are human (that is, the source and the beneficiary), the currency of exchange is mana. As seen through the exploration of traditional applications of Tauutuutu, the Māori chief was singularly jealous of protecting, and growing, their mana. Gifting and lavish hospitality (or manaaki) was a frequent practice to increase the status of hosts and chiefs; of equal focus was the erosion of mana if these overtures were not met to the expected standard, the consequences of which could be dire. Altruistic behaviour of those in power to redistribute economic wealth to allies, to strategic parties, and within their social (whānau), political (hapū) and martial (iwi) units was a fundamental source of mana. Traditional economic exchange was undertaken in the form of a series of ‘gifting’. In stark contrast to modern bartering system, the value accretion in an economic exchange is both pragmatic (in terms of resources gained, such as food or rare materials including pounamu or tuhua) as well as having a positive impact on status.

Mauri is the essential animating vitality of a body – be it a human body, a body of water, or an ecosystem.² Through whakapapa to ngā atua Māori, all of nature is understood to have mauri, it animates the universe. It is an organism’s and an ecosystem’s innate ability to create and sustain life. **When the actors in a value change include the natural world, the currency of exchange is mauri.** Such exchanges create an accretion, or erosion, of the mauri of an environment or ecosystem, and as such create a social obligation to balance that disruption in a commensurate manner. The ‘social currency’ of mauri provided a critical means by which exchanges with nature could be understood and measured. Four key types of interactions that can enhance or deplete mauri can be delineated: “symbiotic (mutually enhancing mauri); mutualistic (mutually maintaining mauri); commensalistic (not affecting each other’s mauri); and, parasitic (one body diminishing the mauri of another for its short-term gain but long-term demise)”. Through this interactive nature of mauri, Māori played an important role in the vitality of nature, and used whakapapa to actively interpret the outcome of interactions.

Social obligations in exchange

Any exchange generates an obligation that was both reciprocal and escalating in nature. The exchange of a good or service obligated the receiver to provide a good or service of equal or greater value at a later date.³ **The requirement for the return and the delay of the returned good or service both helped create and maintain a relationship between the giver and**

receiver and their wider social groups. The traditional Māori economy provided a means of exchanging goods and services while simultaneously serving the vital function of creating and maintaining social cohesion through this delayed, increasing reciprocal exchange.

Failure to provide the good or service or the provision of a return of insufficient value resulted in a loss of mana, or prestige. A loss of mana had significant impacts on Māori social and political standing and, in extreme cases, psychological wellbeing and physical health. While the return good or service could be of equal value, a return of greater value enhanced mana. This was frequently how the transactions progressed, with the value of returned goods or services increasing through each exchange.⁴ In this way, **the framework of Tauutuutu can be considered one that encouraged an initial investment by promising future returns.** Mana was essential in the motivation and regulation of this framework of exchange, it acted as the ‘currency’ of social obligation.

The delay in return was also important as it meant that the obligations were maintained over long periods, binding Māori society together. Both within and between Māori whānau, hapū, and iwi there were ongoing obligations that went back years and even generations, as tracked by mana. New relationships were created and old ones were maintained by exchange. As Metge explains, “the delay in making the return and the obligation to give more than an equivalent produce[d] a continuing state of imbalance in relations between the individuals or groups concerned... [creating] a see-sawing of obligation and hence of mana from one to the other which lasts for many years and many generations.”⁵ The “reasons for this deferred repayment were essentially practical ones, based on the seasonal nature of Māori economic activity”, but as a consequence it fulfilled a vital social function.⁶

Dynamic equilibrium in exchange

Tauutuutu can also be viewed as the means of maintaining balance through exchange.

The Māori worldview “acknowledges a natural order to the universe, a balance or equilibrium.”⁷

Tauutuutu was “a driving force in the maintenance of relationships... It [drove] actions which seek to restore balance and to provide for reciprocity.”⁸ However, Māori also understood that life was an ongoing series of interactions and processes that meant that balance was never fully achieved but rather only temporarily acquired, especially as there was an ever-present need to escalate. **Acquiring balance was a critical in all exchanges even as it was understood to be fleeting.** The ongoing need to reciprocate an exchange with a good or service of equal or greater

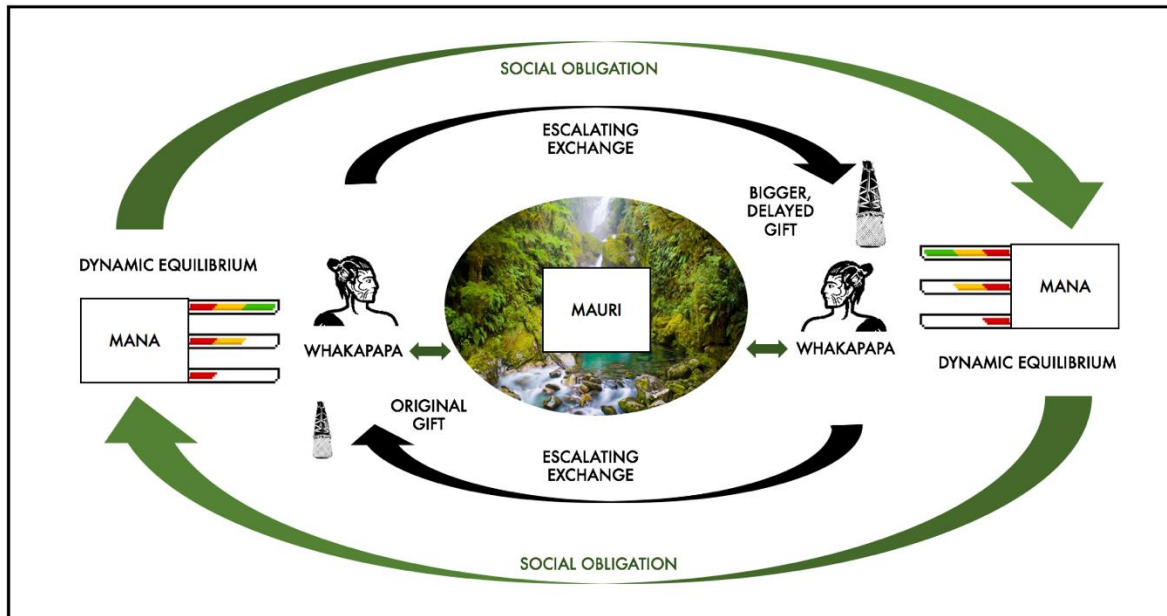
value helped briefly restore balance as the obligations swung back and forth between giver and receiver. While the aim was balance, the reality was more of a dynamic equilibrium, with the urge for escalation driving growth in a see-sawing manner.

Balance through exchange was measured by mauri, the life force all beings have, while mana helped drive the dynamic equilibrium. Critically, mauri is “an interactive life force.” It is enhanced or depleted through interactions. Balance is achieved when those interactions are mutually-beneficial. Mauri provided a metric, or ‘ledger’, that helped track whether exchanges maintained, restored, or disturbed balance. Mana motivated the restoration of an exchange to equilibrium, even as it simultaneously disturbed that balance by motivating people to act in ways that accrued mana. Mana can be seen as actively encouraging economic growth, it was the dynamo of the traditional Māori economy.⁹

The framework of Tauutuutu also created balance in two other ways. Firstly, it helped to balance the different resources – natural and human – of various regions. Much of the exchange involved goods that were geographically- dispersed or rare and specialised skills and knowledge.¹⁰ Secondly, Tauutuutu helped maintain balance in terms of outcome. Because mana was gained through generosity rather than hoarding, this meant surpluses were redistributed and accumulated throughout a group rather than amassed individually. The “fixed wealth of the chief was not much greater than that of an ordinary tribesperson. The difference lay in the larger quantities which continually passed through his hand.”¹¹ The level of generosity and capacity of an individual or whānau to provide, also meant that those that were given to could be called upon to provide resources (such as labour) when needed. Tauutuutu did not prevent economic growth but rather ensured that the wealth generated was accumulated collectively and balanced in its distribution.

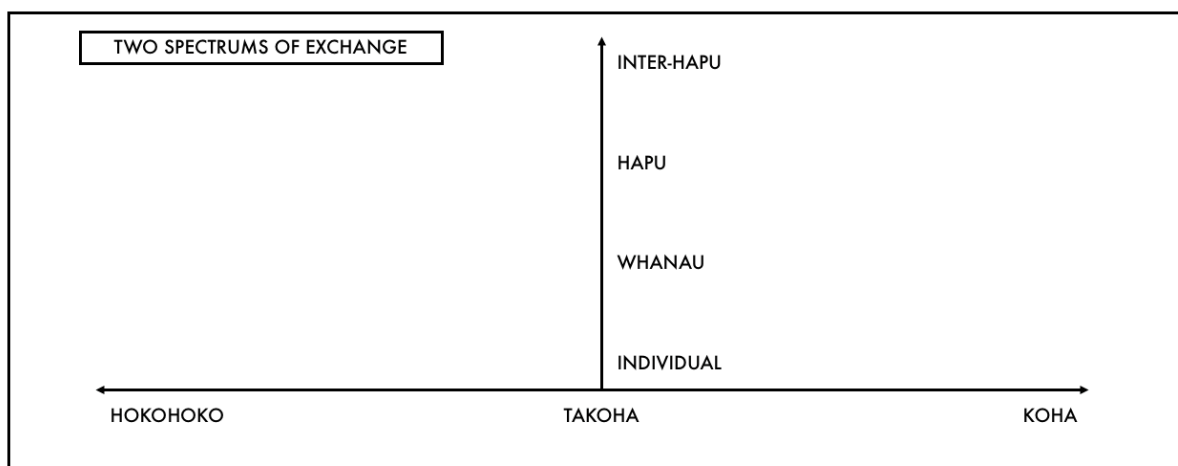
The framework of Tauutuutu, at a basic level, can be outlined as escalating reciprocal exchanges that create and maintain social obligation and dynamic equilibrium as determined and regulated by mana and mauri and conducted within a web of whakapapa.

This is illustrated below:



Forms of traditional exchange

There were several different forms of exchange in traditional Māori society, which can be best described using two spectrums.¹² The first spectrum maps the level at which the exchange occurred. At one end is exchange between individuals. In the middle are exchanges within either a whānau or a hapū. At the other end is exchange between hapū, the dominant social and political grouping during the traditional period. The second spectrum describes the main reason for the exchange. At one end of this spectrum is the more utilitarian ‘barter’, or hokohoko, which saw exchange occur without delay and with little social obligation. In the middle of the spectrum is takoha, or an exchange with expected reciprocity and resulting social obligations. At the other end of this spectrum is a pure ‘gift’, or koha, one given with ‘no strings attached’.¹³ These two spectrums are illustrated below:



Economic exchange as part of wider interactions

Viewed through an economic lens Tauutuutu is a framework of exchange for goods and services. However, for Māori it can also be understood as an ethic – or a rule that shapes behaviour – that guided relationships with each other and with the natural world. The economic exchanges can be understood as one aspect of a more complex network of relationships. These relationships were usually understood in their totality. **An economic exchange was also simultaneously a social, political, and environmental relationship.** Economic exchange was deeply embedded in wider Māori social and political relationships and their relationships with nature.¹⁴ This can be understood by further examining whakapapa.

Whakapapa revisited

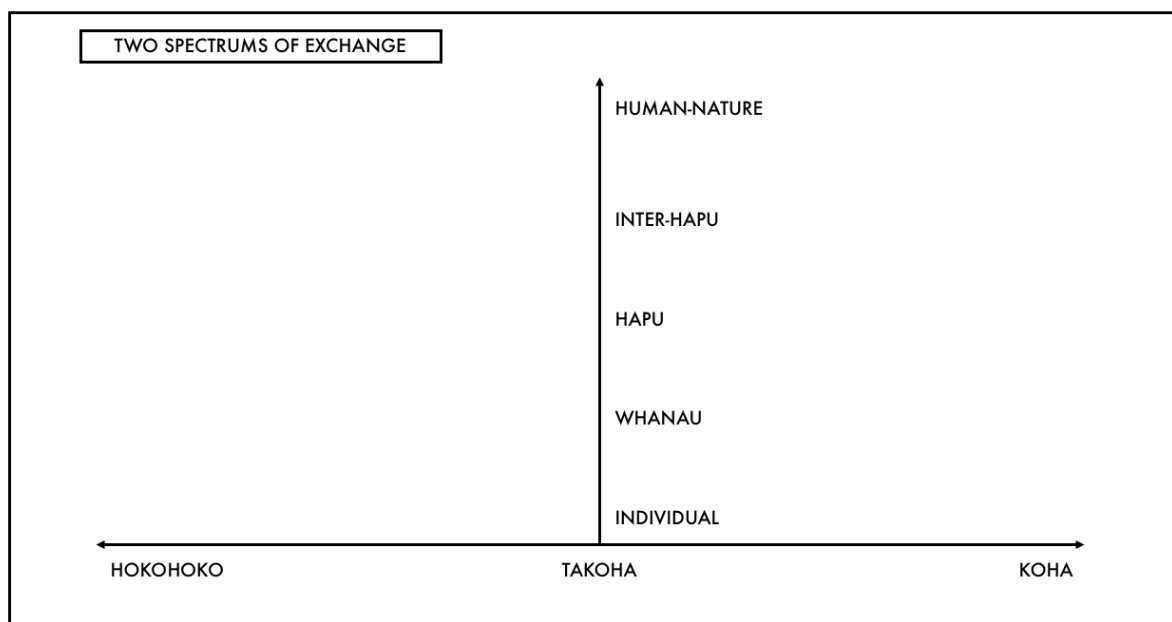
Whakapapa does not just trace people's ancestry, it is the “Māori view of reality.”¹⁵ It outlines a shared genealogy that “links all animate and inanimate, known and unknown phenomena in the terrestrial and spiritual worlds.”¹⁶ For Māori “all living things are understood to be members of the same family tree, and... these living family members are in turn the descendants of the elements (e.g. the earth) that give rise to their existence.”¹⁷ This shared ancestry is traced back to the atua. While frequently translated as ‘god’ or ‘deity’ atua are best viewed as “the progenitors and personifications of all known phenomena, both living and non-living”.¹⁸ Whakapapa also looks forward, binding a person to future generations, as well as past ones. All “elements within the universe are ordered in linear (descent-time) and lateral (kinship-space) layers”.¹⁹

Māori do not see this ‘cosmological family’ in an undifferentiated way, similar to a human family. Instead, whakapapa is a complex genealogical narrative that identifies and classifies everything across creation and time.²⁰ It has been referred to by Māori academics as a ‘mental construct’, a ‘taxonomic framework’, and a ‘philosophical construct’ because of this capacity to identify and classify.²¹ Whakapapa provides the overarching conceptual model in which Tauutuutu occurred. As a taxonomic framework it provides information on the relational dynamics amongst people – between individual as well as different members of a whānau, hapū, and iwi – and it also provides information about the natural world – offering practical knowledge about flora and fauna such as life cycles, habitats, harvesting and growing methods.²² Whakapapa provided a map of all nature and the relationships between and within the natural world, allowing Māori to see themselves in a web of kinship. However, it also provided a motivational component. Atua are simultaneously the personifications and guardians of their respective natural domains. Because Māori trace their ancestry back to the atua, and through them to the rest of the natural world, Māori also have a

responsibility to care for these domains as well. There is also motivation to care for natural world for the sake of future generations. The view of kinship that emerged out of whakapapa generated obligations on Māori to maintain the wellbeing of people, communities, and nature – to care for the cosmic family.

Influence on Tauutuutu

Whakapapa provides the core belief that guides Tauutuutu and its key characteristics of social obligation and dynamic equilibrium as motivated and regulated by mana and mauri. The Māori view of the world is premised on “the innate mutualistic relationship between tangata whenua (people of the land) and whenua (land). The connection is underpinned by a notion of reciprocity and stresses the ideology that just as society takes from the land, it must also give back to it in the form of respect and care.”²³ Shared whakapapa and the responsibilities this created expands the spectrum of level of exchange described previously, adding the natural world.



Types of exchanges in traditional Māori society

Most exchanges in traditional Māori society were conducted within the Tauutuutu framework, meaning that they occurred somewhere in the middle of the second spectrum. Similarly, while there were numerous exchanges at the individual, whānau, and inter-hapū levels, **the most frequent and significant exchanges in the traditional period occurred at the hapū level, generally as a form of food redistribution.**²⁴ Finally, while many different goods and

services were exchanged, food was the “basis of the economy”, it was by far the most frequently traded item.²⁵

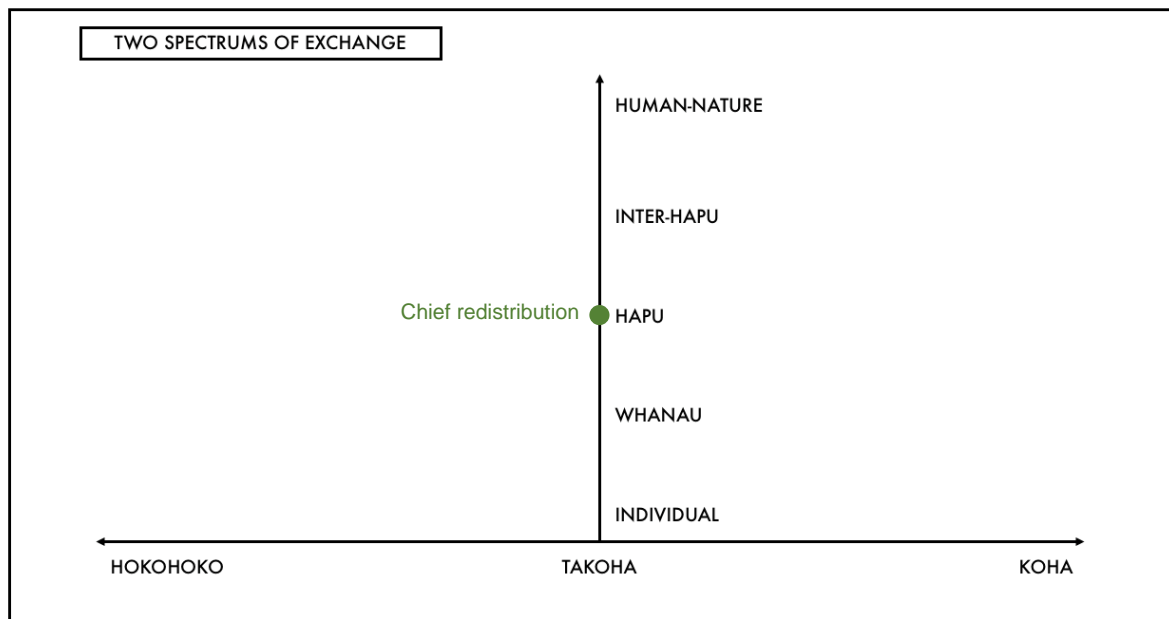
One of the key means by which the hapū chief maintained his mana to govern was through the redistribution of food, and the rights to harvest, hunt, or fish food, to the hapū members.²⁶ Key to this was the nature of Māori property rights or, more accurately, resource user rights. These were held at individual, whānau, and hapū level, generally depending on the scale the method required to harvest, hunt, or fish. For example, those species of fish that required a seine net (which could be over a kilometre long and needed hundreds of people) were held at the hapū level. No matter which level they were held, the chief had ultimate mana over these resources.²⁷ The chief maintained large stores of food that he could redistribute to facilitate communal enterprises, such as the building of a marae or waka, and in times of need.²⁸ Also, food was redistributed by the chief after a large-scale harvest, hunt, or fish, in which case it was divided up amongst the hapū. Meredith describes:

“One expedition in 1855 by the Te Rarawa people, led by the chief Popota Te Waha, involved more than 1,000 individuals in 50 canoes, and lasted over two days. The fish caught from such communal efforts were divided by the leading chief among each whānau (family).”²⁹

Often, the amount given was gauged by the level of effort put in by the participants, with one saying for those who collected whitebait being ‘that one is right; a wet skin’.³⁰ **The connection between the chief’s food redistribution and his mana was fundamental.** As Lian explains:

“There constant calls upon the chief’s resources. His slaves and immediate dependants had to be fed, he was expected to assist his tribespeople and relatives and to make generous repayments to them for services rendered him and, occasionally, as a mark of their loyalty. When presents of foodstuffs were made to him by people of other tribes, he had to distribute a considerable portion to his followers to maintain his reputation.”³¹

This locates this form of exchange at the centre of both spectrums, occurring within the hapū and as a form of takoha, serving to bond the hapū together while enhancing the mana of the chief. Redistribution saw food levels balanced out amongst the members of the hapū, whilst boosting the chief’s mana. The chief’s “ability to provide ample food supplies were intimately connected with tohatoha (its liberal distribution within the group).”³²



Oral traditions regarding the Ngāti Awa chief Kahu-Hunuhunu or Kahungunu show how important providing sustenance was to a chief's mana, with a saying about him noting he was

“[A]n industrious man who knows how to manage works both on land and at sea. He was renowned for his skills in supervising the building of kāinga and for his attention to the proper irrigation and drainage of his people's cultivations as well as for his management of fishing and seafood-gathering expeditions.”³³

As Kahu-Hunuhunu reportedly said, “Obtaining food is the prized accomplishment.”³⁴ Skills relating to food supply were ranked number one on several lists of ideal chiefly qualities made in the early contact period.³⁵ The most valued trait of leadership was industriousness, with proverbs articulating the level of value attributed to industrious leadership: “short fingernails show the rank of the man in power,” and “when commoner and chief work together the task is done.”³⁶

Another common form of exchange was the hākari, or feast attended by other hapū. These feasts were events of “considerable economic, political, and cultural importance.”³⁷ In particular, hākari were a powerful expression of a chief's mana, both within their own hapū and with regard to their guests. At hākari the host chief would divide up the food. Piles would be set up and the host chief would go along and note that a particular pile was for a particular hapū, then the chief of that hapū would again divide the food up amongst his own hapū.³⁸ One hākari at Matamata was held by Te Waharoa in 1837 for tribes from across Tauranga. A Pākēha commentator noted:

“They have collected for the feast, six large albatrosses, nineteen calabashes of shark oil, several tons of fish, principally young sharks, which are esteemed by the natives as a great delicacy, upwards

of twenty thousand dried eels, a great quantity of hogs, and baskets of potatoes almost without number.”³⁹

There was an obligation on the guest hapū to provide a reciprocal hākari that equalled or bettered the original feast, helping create and maintain bonds between hapū as the hosting duties oscillated between them in dynamic equilibrium. The hākari was a form of takoha, and covered much of the level of exchange spectrum from intra-hapū to inter-hapū.

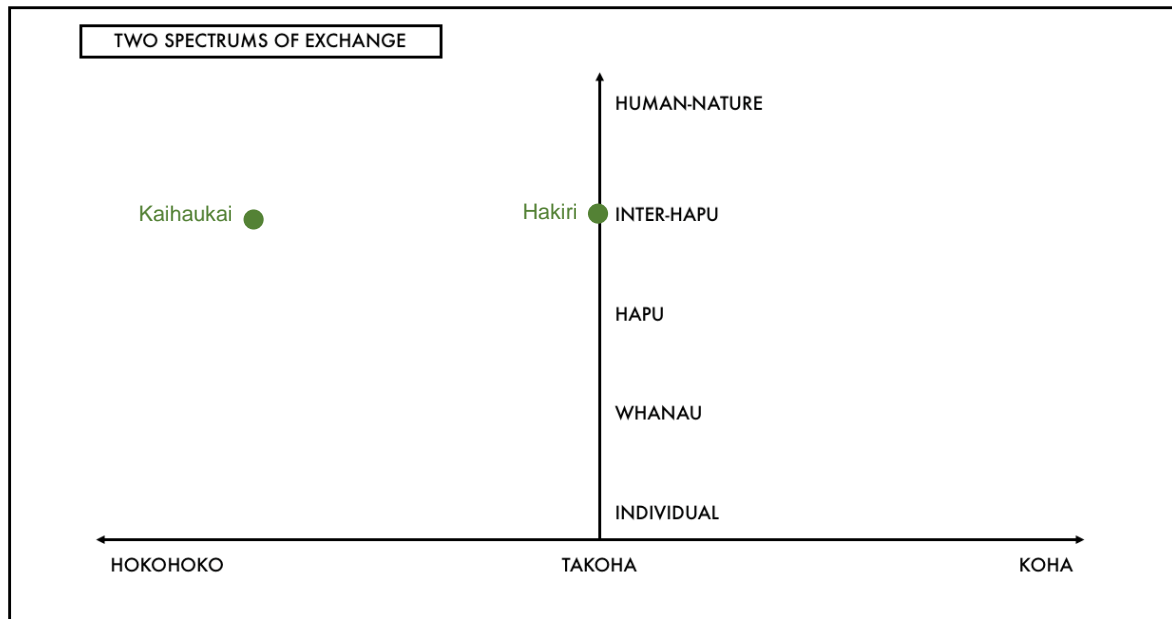
Another form of inter-hapū exchange, sometimes referred to as kaihaukai, saw geographically-dispersed, rare, or specialised goods and services bartered. While other types of exchange also involved the transfer of dispersed, rare or specialised goods and services, kaihaukai was uniquely focused on addressing resource and skill imbalances. Mead explains:

“Some intertribal gift exchanges were formerly largely economic in purpose as when coastal dwellers exchanged food supplies with inland tribes. Here, items of food not necessarily available to inland tribes were given to them in exchange for food items that were a speciality in inland areas such as huahua (preserved birds). Seafood was always highly desired by inland dwelling people and one way of having access was by way of an exchange relationship.”⁴⁰

Unlike the hākari, often the goods were not consumed during kaihaukai but were rather taken back to the respective settlements.⁴¹ While hapū were self-sufficient in terms of necessary skills, there were highly specialised craftsmen who were either temporarily ‘traded’ in these types of exchanges, going with the hapū to conduct their work, or whose work was bartered on during this meetings.⁴² Williams describes one such exchange witnessed by Stack:

“Stack mentions a visit to Kaikōura, in late 1828, by ‘friends [of Kāti Kuri] whom they were expecting from Napier’. Stack’s term ‘friends’ would be his own interpretation. In all probability they would have been distant relatives with whom trading relationships had persisted ever since Kāti Kuri ancestors had moved from the Hawkes Bay area. That they were ‘expected’ suggests that their visit was a regular event, most likely when a specific resource was in season.”⁴³

This was a largely utilitarian trade. It probably still involved some social bonding, with a degree of kinship or friendship required between the two groups to set up the exchange. As O’Malley explains, “Outright haggling or bargaining was severely frowned upon.”⁴⁴ Kaihaukai “was usually an irregular event involving groups without rights to the desired resources. If regular trade became established, it was ritualised... to a form of gift exchange”.⁴⁵ In other words, as the connections between groups grew the previously more utilitarian bartering would take on a greater social significance.⁴⁶



At the individual and whānau levels, all three forms of exchange occurred from barter to pure gifting. The flow of social obligations and the dynamic equilibrium would have been almost constantly shifting with numerous ‘micro-transactions’ occurring on a regular basis at this level. As well as exchanges involving relatively small amounts of food, individuals and whānau within a hapū traded tools, including fishing hooks, weapons, snares, clothing, and cookware, as well as a specialised services, such as tattooing, medicine, and spiritual advice.⁴⁷ Each hapū had its own range of specialists who ensured the group’s self-sufficiency and the network of social obligations between individuals and whānau enabled hapū members to access these various skillsets, ensuring there was a balance of outcome.

Within hapū, social obligations were balanced by individual and whānau freedom. Individuals were not restricted to only operate within communal contexts, but frequently contributed the goods, labour, or skills they acquired independently to the group voluntarily. When “incentives of security were present, the individual’s gains in terms of skill or wealth” would be “shared with the wider group.”⁴⁸ The ethic of Tauutuutu was internalised, such that when there was a need, individuals provided to the collective. Spiller et al. explain that “Māori had an existing economic framework with stable, well established protocols for the conduct of trade to meet the needs of the individual and the collective. Their distribution systems were far reaching, and trading relationships were secured and strengthened through an ‘economy of affection.’”⁴⁹

Underpinning, and preceding, all of these exchanges of goods and services between humans was the initial exchange between humans and the natural world, whether it was the catching of a fish or the cutting down of a tree. The use of all natural ‘resources’ was heavily proscribed and regulated, ensuring that mauri was largely maintained. One of the key ways in which this was ensured was through the rāhui. A rāhui was, at its most basic, a resource control mechanism.⁵⁰ The concept of rāhui is closely connected with tapu (sacred/restricted), mauri, and mana. Placing a rāhui made an area or resource tapu, or off-limits and protected. A rāhui was put in place by chief when the mauri of the resource was depleted—be it fish stocks or water health.⁵¹ The “efficacy of a rāhui is directly related to the mana... of those who instituted it” and the removal of it “could be used to enhance the prestige of the chief who initially imposed it.”⁵² An area under rāhui was out of bounds to hunters, fishers or harvesters, depending on the resource, while other areas remained opened, until the mauri was deemed replenished and the tapu was removed. Rāhui was often used in rotation, such that river would have successive areas placed under rāhui to allow stocks to replenish.

When a resource was taken, it was done so under strict guidelines. A karakia was said to break the tapu. Often a gift was given in return to restore mauri. For example, it was “common practice to return the first fish that was caught to the sea. Many tribes also had sites on shore where fishermen would place their offerings of fish to Tangaroa, and recite karakia of thanks.”⁵³ There were also limits on how much could be taken. Williams explains that the “key to the Maori view towards environmental issues is the importance of not altering mauri to the extent that it is no longer recognizable; an area being harvested must not have its essential character changed as a result of the harvest. An example of this might be that whereas it may be acceptable to cut one tree from a totara grove, a lone totara would not be available as it is part of the vital essence of the locality and to remove it would change its character.”⁵⁴ Underpinning this understanding was that Māori “realised that shifts in mauri (life force, life spirit) of any part of the environment, for example through use, would cause shifts in the mauri of immediately related components. As a result, the whole system is eventually affected.”⁵⁵

While the exchanges within humans and between humans and nature have been portrayed separately here, they are better understood in an interconnected web. Goods did not lose their mauri when they were converted from natural items into ‘commodities’ but rather this mauri was an inherent component of the traded good.⁵⁶

European contact 1769-1800

The first interactions between Māori and Europeans involved economic exchange.⁵⁷ Initial exchanges were conducted as both straight barter and with social obligations, depending on how Māori viewed the exchange and what they wanted from it.⁵⁸ **This was so granular that during a single trade interaction, different goods carried different levels of social obligation.**⁵⁹ It was their capacity to move along the ‘reason for exchange’ spectrum that enabled Māori to quickly and competently trade with the early explorers. “From the time of Captain Cook’s arrival in New Zealand Māori demonstrated eagerness to trade, considerable enterprise, and, in many cases, a distinct desire to secure a bargain.”⁶⁰ **This is an important insight into the utility of the Tauutu framework, it has an inherent flexibility to it that enables exchanges to be calibrated to match the context and desired outcomes.** As Petrie notes, “Commerce between Maori and European required a greater degree of adjustment, but even the most fundamental of Maori cultural injunctions were flexible enough to facilitate interaction with those who did not share them.”⁶¹ The core principles of Tauutu were, and remain, of fundamental importance but they can be minimised in some exchanges across the wider economy.

There was a variety of exchanges with Europeans in the early contact period, from more utilitarian barter exchanges at the individual and whānau level through to a combination of barter and socially-obligated exchanges by chiefs. “Although the more economically significant trade, such as ship provisioning and contracts to supply flax and timber, was organised and managed by chiefs utilising communal labour and resources, there was clearly an element of individual trading.”⁶² Individuals who left to work on ships as deck hands or in whaling and sealing sectors would generally bring gifts back for their chief “to reaffirm their relationships with the home community” and restore balance “for the loss of their labour while away.”⁶³

Tauutu provided a flexible yet robust framework for Māori to trade with groups with alien customs and mechanisms of exchange almost instantly and expertly.

Māori economic ‘golden age’ 1800-1860

The decades following contact saw Māori commerce boom as Māori actively sought economic (and socio-political) opportunities. **In the 1840s Māori commerce accounted for roughly 95% of the gross national product of the colony.**⁶⁴ Petrie notes that between them, in 1857 Mātaatua and Tūwharetoa, with a combined population of 8,000 had:

“[O]ver 3,000 acres in wheat, 3,000 acres in potatoes, nearly 2,000 acres in maize and over 1,000 acres in kūmara (sweet potatoes). Those figures suggest a rate of almost 1.125 acres per head under cultivation, compared with 0.915 acres per head by Europeans in 1870. Those tribes also owned nearly 2,000 horses, 200 head of cattle, 5,000 pigs, four water- powered flourmills, 96 ploughs, 43 ships averaging almost 20 tons each, and over 900 canoes.”⁶⁵

Engagement with the growing settler economy and the introduction of money as a medium of exchange – which Māori resisted for decades until the 1830s when its fungibility was increasingly apparent – saw several ‘interfaces’ at the individual and hapū level.⁶⁶ Individuals who earned wages in the settler economy could spend them, bank them, or contribute them to the communal pool – in the early years it was common for most wages to be used either on goods for gifts or added to the communal pool, showing the endurance of the Tauutuutu framework.⁶⁷ Many Māori gained employment on board whaling, sealing, and trading vessels, often at the behest of their chief, who understood it as a good opportunity for the collective to gain information.⁶⁸ As O’Malley concludes, despite increasing integration into the cash economy, “participation... remained for the most part based on existing social structures and continued to be directed at advancing the interests of the group.”⁶⁹ **While individuals had a degree of autonomy in their dealings they also had to ensure they did not compromise the mana of the chief under who they were operating, their autonomy remained tethered to the Tauutuutu framework.**⁷⁰

Chiefs, however, were the key interface between the settler economy and the Māori economy during this period with many chiefs managing trade for their hapū. **The communally organised engagement with capitalism in activities such as timber and flax sales and ship provisioning saw chiefs working at the interface, charged with bartering, quality control, as well as organising the labour and receiving and subsequently distributing the payment earned.**⁷¹ “The rapid expansion of Māori commerce was not simply chance, but had been advanced by deliberate strategies in line with customary practice.”⁷² The chiefs “acted as entrepreneurs, accumulating capital assets and investing in business enterprises for their people’s benefit.”⁷³ **Chiefs actively established diplomatic and trading alliances through gifts of taonga or desirable resources.** For example, Te Pahi was the first chief to visit New South Wales, “where he expressed keen interest in cultural and technological exchange and welcomed Governor King’s plan to settle a party of official observers under his mana at the Bay of Islands.”⁷⁴ Another chief, Tītore Takiri sent both a significant taonga and a shipment of spars to King William IV along with a letter expressing an interest in a political alliance.⁷⁵ Chiefs sought to create alliances with those they perceived as influential. They “harnessed their political power for social and economic benefit” and by “successfully doing so... simultaneously enhanced that political power

with self-perpetuating motion.”⁷⁶ “The incentive for chiefs to engage in capital enterprises was provided by the initial accumulation and possession of wealth, the potential for distribution, and their consequently increased mana.”⁷⁷ While the main aim of chiefs was attracting and controlling as much trade as they could, the potential of mutual benefit through inter-hapū alliances was also a common feature of post-contact commerce, with many hapū allying on large scale capital asset purchases, such as ships and mills.⁷⁸

At the same time, many Europeans became embedded in the Tauutuutu framework. While “Māori remained dominant in their own country, their customers were more often subsumed into the local mode of dealing with its expectations of reciprocal benefit.”⁷⁹ For the early traders it was essential to secure the protection and patronage of local chiefs, with many sealing their alliance by marriage to a member of the chiefly family.⁸⁰ As Petrie notes, “These relationships tended to be win-win situations for all the parties involved.”⁸¹ Pākehā “were well aware that chiefly mana protected the interests of their commercial allies.”⁸² In turn, Pākehā benefited from low levels of theft because Māori working for them did not want to negatively impact their chief’s mana.⁸³ The partnership of Ruawahine of Ngāi Te Rangi and her husband, John Lees Faulkner, for example, ensured that Ngāi Te Rangi obtained the goods they needed while her mana gave her husband the protection and sponsorship he needed for his business to prosper.⁸⁴ In another example, a number of Pākehā who had been living under a chief’s patronage provided him with military support during a three-month war. Petrie notes, “These people clearly understood the customary conventions of reciprocity.”⁸⁵ Many Pākehā resisted Tauutuutu because they did not want to be caught in the ongoing web of social obligations. Recounting an event where many chiefs wanted his puppies, a missionary noted: “The idea of selling dogs may appear strange but from the general conduct of the Natives we find it best to give them no presents, as we afterwards suffer by it.”⁸⁶ Rather than getting caught in ongoing reciprocal exchanges, the missionary wanted to conduct the exchange in a purely utilitarian manner.

The dissemination of the various crops, stock, tools, and techniques that drove the early Māori economic boom were conducted through the Tauutuutu framework, often through kaihaukai, with many of these new items and the associated knowledge arriving in areas before the first Europeans did.⁸⁷ Māori were soon producing enough foodstuffs to provision ships; for example, “one whaler was able to purchase seven or eight tons of ‘very fine potatoes’ during a stay at the Bay of Islands” in 1803.⁸⁸ **By the 1840s, Māori chiefs were acquiring large capital assets, particularly flour mills and open-water ships, with which to increase their economic**

capacities and enhance their mana, which as Petrie notes were intrinsically connected.⁸⁹ Their mana was enhanced by their increased economic capacity. Hapū sometimes collaborated in purchasing these capital assets, this “co-operation in the acquisition of both flourmills and sailing ships” was usually conducted through whakapapa networks, building on existing social obligations.⁹⁰ It also made strategic sense, as the rivers the mills were powered by and the waters the ships travelled on crossed hapū boundaries.⁹¹ While purchased collectively, hapū “preferred to retain their separate identities and autonomy”, and the “the evidence indicates that independent groups did not feel that their mana was compromised by this type of co-operation... participation was negotiated on a basis of community consensus.”⁹² **Many of these assets purchased through a system “similar to a joint stock company”,** though often while shares were held in an individual’s name, they were “subscribed for by the hapu, or subdivisions of tribes of which they [were] chiefs.”⁹³ While the chiefs were instrumental, “there is also evidence of consultation between hapū concerning the degree of their contributions to such collective investments.”⁹⁴ **The flexibility of the Tauutuutu system enabled the joint stock company model to be adapted, and the acquisition of large capital assets was driven by the dynamo of mana.**

Māori economic decline 1860-1990

Through a range of factors including the loss of land, the Land Wars, the growth in the settler population, and fluctuations in the international economic market, the Māori economic ‘golden era’ came to an end by the 1850s.⁹⁵ The Tauutuutu framework did not disappear, but rather provided a vital support network for Māori as they were further impoverished by low wage employment in the cash economy.⁹⁶ Into the first half of the 20th century across Māori communities, various exchanges continued to be made, and in many cases were the key economic transactions. These exchanges still worked to build and maintain social obligation though their scale had often change. **By this stage, the exchanges were virtually all between individuals and whānau, with only the collective koha for marae really reflecting the diversity of traditional exchange, while the chiefly forms of exchange were essentially extinguished.** During this period, Māori “lived in isolated villages and reverted to a subsistence type of agricultural economy supplemented by land clearing and seasonal labour for pakeha farmers and for the railway and public works departments.”⁹⁷ Most of these exchanges were non-cash, involving food that had either been hunted or gathered or grown in the extensive – often communal – gardens Māori maintained.⁹⁸

During the first half of the 20th century, Māori were increasingly incorporated into the wider economy, with the majority of Māori working as labourers, either on farms, freezing works, or in other primary sectors such as forestry, with a few running their own farms.⁹⁹

This income was “supplemented by resource gathering in the forests, fishing, (whether in coastal waters, or in rivers and lakes), growing crops on Maori-owned land (sometimes for sale) and delivering milk on a small scale to dairy factories in some districts.”¹⁰⁰ Even into the 1940s, many Ngāi Tahu muttonbirders were exchanging their future harvest for the supplies they needed for the trip with Pākehā store keepers and many of the birds are still traded in a form of barter exchange.¹⁰¹ With the massive urbanisation of the 1940s-1970s, this economy faded as more Māori entered the fulltime workforce. However, the exchange of food, and in some cases other goods, continues into the current era.¹⁰² Many Māori during the 1940s-1970s worked in seasonal jobs such as freezing works or fishing, where they could spend considerable periods of each year hunting and gathering in ways congruent with traditional practices.¹⁰³ However, these opportunities to retain a semblance of traditional economic patterns have reduced, with concurrent reductions in the capacity for exchanges within the Tauutuutu framework, at least with food caught or captured.

Māori land management was severely impacted, largely due to land loss and the fragmentation and complex ownership of the remaining land. In 1860 Māori still owned about 80% of the North Island (most of the South Island was sold by the 1860s), by the 1890s they had around 40%, by 1910 it was down to 27%, and by 1939 it was reduced to 9%.¹⁰⁴ This remaining percentage of land does not represent the relevant economic capacity. As Boast explains of the early 20th century, “Even where Maori retained substantial areas of land, as in the East Coast, Hawke's Bay, and in the central North Island, they were hampered everywhere by a lack of access to development credit. Poverty, squalid housing and poor health were widespread.”¹⁰⁵

In the 1920s, Māori politician Apirana Ngata “wanted to lift Maori out of what he saw as a threatening rural poverty trap by turning them into modern farmers.”¹⁰⁶ Ngata believed Māori should participate in the national export economy, though he also wanted them to remain on their land and maintain their cultural autonomy. **Ngata saw immersion in the market economy as the best hope for Māori retaining political, social, and cultural traditions. His land development scheme aimed to aid these twin goals by providing development finance and helping overcome the fragmented property titles that plagued Māori land.**¹⁰⁷ In bringing his land development scheme to fruition “he had to counter a great deal of prejudice and misinformation. The earlier conviction that Maori were dying out and thus had too much land had

been partially supplanted by the claim that Maori were poor land managers in any case.”¹⁰⁸ The Māori Land Development Scheme was established in 1929, with the government providing funding for the development of Māori land. The legislation also encouraged the incorporation of Māori land. Incorporations provided a collectivist solution, giving legal form to a community of owners. “As idealised by Ngata,” Boast explains, “incorporations worked by turning land blocks into a kind of community project: the community worked the land under the eye of a salaried manager, drew salaries, remained at home and earned profits according to the value of their shareholdings.”¹⁰⁹ The incorporation as viewed by Ngata can be seen as a hybrid form of organisation that retained much of the traditional Māori structures, including the chiefly redistribution, but embedded within a cash economy. While the scheme itself had mixed outcomes – due to a range of issues including the Great Depression, land suitability problems, public sector capacity, loss of government support, and Ngata’s sidelining – the incorporation has had a lasting legacy.

The incorporation’s legacy is also matched by that of the Ahuwhenua Land Trusts. In 1955 the Māori Trust Board Act was passed, creating another land management organisational structure. Close to 60% of Māori land is now held in a Trust, which provide body corporate status for perpetual succession and limited liability.¹¹⁰ Many trusts and incorporations struggled to develop in the mid to late 20th century. There are a number of reasons for this including: top-heavy governance structures; onerous reporting duties; numerous, diverse, and often distant shareholders; remote, suboptimal land; and issues accessing finance.¹¹¹ However, in the late 20th and early 21st centuries, many have managed to overcome these problems, and, in some cases, use them to their advantage to not only develop economically but do so in a rejuvenated Tauutuutu framework alongside the growing number of post-settlement governance entities and other businesses in the burgeoning ‘Māori economy’, as will be explored in the following section.

Production and land management processes

Across the primary sector Tauutuutu still plays a role in shaping production and land management processes, generating a range of reciprocating benefits. **However, rather than an explicit observable practice of exchange it operates more as underlying ethic guiding land management decision-making, production process, social relations, and value-chain formation.** In this section, areas where Tauutuutu still plays a role are outlined, including: collaborative land management; alternative land use patterns; and, exceeding regulatory requirements.

Collaborative environmental management

Farm boundaries across New Zealand rarely match the ecosystems, catchments, and habitats over which they lie. Consequently, collaboration and planning between landowners is necessary for effective environmental management. From a Māori perspective, the principle of Tauutuutu obligates Māori landowners to engage in mana and mauri enhancing relationships with their whenua (land) and wai (water). Furthermore, it obligates engagement and investment in, and with, other landowners pursuing similar strategies. **This manifests as collaborative land management networks across clusters of Māori, and at times non-Māori, landowners to achieve such outcomes.**¹¹² The effect is intergenerational environmental guardianship, which Kingi explains, is a key driver in “two developing trends in the Māori sector: the aggregation of smaller land titles into larger farming units, and the formation of multiple farm units into farming collectives.”¹¹³ **These networks help deliver ecosystem, catchment, and habitat level management, enabling the maintenance of a dynamic equilibrium across these areas.** Whakapapa plays a role in both the motivation and creation of these networks.¹¹⁴ Generally, these networks are built on existing whakapapa bonds between the different farms and their shareholders. They are also motivated by the shared whakapapa that these farmers have with the wider ecosystems.

Parininihi ki Waitotara (PkW) Committee of Management provides an example of collaborative environmental management. PKW was formed in the 1976 by a collective of Māori landowners to prevent any more Māori land sales and protect the remaining land. A kaitiaki hui that brings together all the farm managers is held every month where environmental management is discussed and PkW have implemented a range of projects that span their collective of farms, including

monitoring of the streams and biodiversity projects, such as wetland restoration. These initiatives are aimed at overcoming the fragmented nature of Māori land and ensuring that the land can be managed at the appropriate levels.

Atihau Whanganui Incorporation, or Awhi, also provides an example of this collaborative environmental management in practice. Awhi is made up of “an ancestral collective of close-knit Māori families” who believe that “when nature flourishes, we all flourish.”¹¹⁵ “Their agribusiness philosophy is to farm in a ‘sustainable’ manner with an integrated 1 farm framework, whereby the blocks work together to maximise synergies”, as Hutchings et al. explain, with “the notion of the blocks working together... reflecting their natural affinity and close connection as Māori to the land.” As Awhi outline: “Our ongoing work to nurture the land includes: Fencing off 511 hectares of native bush; Fencing off 5.7 kilometres of waterways to keep stock out; Launching a project to measure water quality and impact on waterways running across three of our stations.” Awhi show how the connections of whakapapa have provided a framework within which collective land management can occur.

Land use patterns

Tauutuutu guides land use patterns away from monocropping towards more environmentally sustainable mosaics. This is driven by the need to maintain mutually-beneficial mauri building relationships with the land and water over long time scales, which demands that land use that aligns with land ecology to ensure a balance between immediate human resource needs, the needs of future generations, and overarching environmental integrity. Consequently, many Māori agribusinesses are focused on alternative land uses, such as regenerative agriculture, land use diversification, low intensity farming, organics, retiring land, as well as reforestation projects. In his examination of 17 Māori trusts, Kingi notes that “Land utilisation diversity with multiple enterprises is common among the group”, with a “relatively small number of organisations that are single enterprise: 3 forestry only entities and 3 without any forestry. The rest have a mixture of dairy, drystock and forestry.”¹¹⁶ He goes on to note the increase in indigenous forestry and “the rise of honey extracts from indigenous trees (e.g. manuka), nutraceuticals and access to natural flora for cultural purposes has seen an increase in potential (and actual) revenue streams from indigenous forests.”¹¹⁷

Tuaropaki Trust have modified their land use over their history, moving towards a regenerative, diversified pattern with a focus on minimising impacts and increasing outcomes. The trust set up

their own geothermal powerplant and explain that “Ensuring that we manage our geothermal resource in a sustainable and responsible manner is critical to our business. Extensive monitoring, analysis and research of the Mokaï geothermal resource underlie Tuaropaki’s commitment to better understanding of the extent and dynamics of this valuable resource.”¹¹⁸ Plans to expand the plant are guided by considerations for the environment and its viability for future generations.¹¹⁹ Tuaropaki’s use of renewable energy “emphasises the ideal that everything comes from the land and is similarly returned to it: nothing is wasted and therefore the mauri (life force) of the land is not mistreated.”¹²⁰ One of their guiding principles is “Look after the land, and the land will look after you.”¹²¹ The geothermal plant powers their greenhouses, and the greenhouse waste is then redirected to a nearby native plant nursery and worm farm, which also receives waste from the Miraka dairy processor, a Tuaropaki joint venture.¹²²

Wakatū Incorporation provide another example of shifting land use patterns, explaining: “We are collectively responsible for protecting and enhancing our precious natural resources that are our life force. They have been entrusted to us by our ancestors, and will be passed on to future generations.”¹²³ Kono, the food and beverage arm of Wakatū, is developing a range of land use patterns that fit within the Tauutuutu framework. They have a strategy to ensure its processes are both regenerative and compatible with the tikanga of their ancestors.¹²⁴ Chief executive Rachel Taulelei explains: “With our mussels we crush the shells and compost them and they go on our vineyards. Even our hop waste. We are really investing time and energy into regenerative [methods].”¹²⁵ Kono vineyards also have significant native plantings that combine functional and Whenua Ora (land wellness) elements and across the wider Wakatū land holdings there has been a focus on creating flight corridors by increasing the presence of native plant landscapes and increasing the area of habitat suitable for native wildlife.¹²⁶

Ngāi Tahu Farming (NTF) is also moving towards regenerative and lower intensity practices. As NTF explains, “We aim to retain as much value as possible from our products, parts and materials by reusing, recycling and repurposing them. We identify this as our commitment to a circular economy.”¹²⁷ Across their farm holdings NTF is planting 1.2 million trees, with over a quarter already planted. This project is aimed at restoring natural habitats and increasing biodiversity.¹²⁸ NTF also runs a lower stocking rate across their operations, NTF is also working with DairyNZ as a monitor farm on their programme aimed at reducing nitrate leaching. As part of this initiative they have reduced their stocking rate by 18%, decreased their use of nitrogen fertiliser by 34% and reduced imported supplement use by 43%.¹²⁹

There are also some extreme examples of land use diversification. Kahukiwi Experiences was created when the Trustees of Pukahukiwi Kaokaoroa No. 2 Block Incorporation decided to transition from farming to tourism. As Kahukiwi Experiences explain: “Determined to address the issue of the pollution of our lakes through nitrate leaching from farms, the directors embarked on investigating alternative models of farming. The courageous step was taken to exit farming resulting in the cessation of using super phosphate and the restoration of the whenua (land) was begun.”¹³⁰ Kahukiwi Experiences has been set up as a sustainable tourism business, to maintain the “responsible management of this precious land, ensuring its health and productivity for future generations.”¹³¹

Exceeding environmental and animal welfare regulations

New Zealand has strict environmental and animal welfare regulations, yet for many Māori agribusinesses this is not enough. **Māori agribusinesses tend to exceed regulations in terms of monitoring, requirements, and outcomes, often adopting international standards, taking part in pilot programmes, or developing their own standards.** Based in Tauutuutu ethics, the focus is on ensuring the mauri of the environment and respecting the shared whakapapa of the both the ecosystems within which farming occurs as well as the animals who are being farmed. Often these higher standards come at an economic cost.

Ngāi Tahu Farming, in collaboration with Lincoln University, have been working on ways in which they can enhance their monitoring. As a result, they have developed soil moisture meters and a nitrogen monitoring system on their farms to accurately measure moisture and nutrient levels.¹³² This monitoring system is used in conjunction with the council-required Overseer programme, providing more monitoring capacity. NTF have also partnered with Lincoln University to conduct quarterly reviews of the biodiversity across their farm holdings.¹³³

Many Māori landowners go beyond the regulated riparian planting requirements, driven by the understanding of the importance of water and the wider catchment. For example, the Lake Taupo Forest Trust “did more than required by official regulations. Approximately 30% of the managed land is unplanted. There are riparian strips of land that achieve up to 100 metres width, all following the general aim – to protect Lake Taupo which is widely considered as national treasure and is highly valued by the iwi.”¹³⁴ Extra riparian planting is common amongst Māori land owners.¹³⁵

Many Māori agribusinesses often exceed animal welfare standards as well. PkW joined the pilot scheme WelFarm which provides an overview of how animals are cared for and is designed to help dairy farmers better understand key animal health markers.¹³⁶ Awhi have signed up to the Five Freedoms – a set of internationally-recognised standards for animal welfare that cover: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury or disease; freedom to express normal behaviour; and freedom from fear and distress.¹³⁷ As they explain, “We believe all life is connected – people, land, trees, animals, birds and insects. We’re all in this world together. That’s why we follow the Five Freedoms, globally-recognised standards for the care of animals.”¹³⁸

Organisational governance and business structure

Modern Iwi/Māori entities are faced with the challenging circumstances of applying traditional value sets, such as Tauutuutu, into Western business and governance models typically founded on entirely different principles. For instance, share-based structures such as Māori incorporations individualise the collective mana of an asset base or resource into individual property rights; incongruous with the traditional approach to the collective social and economic units.¹³⁹

Post Settlement Governance Entities (PSGEs)

Similarly, Post Settlement Governance Entities (PSGEs) are tasked with balancing their commercial interests – including the management and administration of assets and subsidiaries – with the needs of their people, through their social or community arm.¹⁴⁰ An artefact of the Treaty of Waitangi Settlement process, PSGEs artificially separate the concept of economic and commercial activities from social impact; a distinction that is inconsistent with the historical economic activities of Māori. Furthermore, the consolidation of traditional hapū assets into centralised iwi bodies simultaneously leads to consolidation of political and financial capital. This result is referred to the centre-periphery tension, whereby the centralisation of tribal mana leads to hapū and whānau experiencing a loss of their own mana.¹⁴¹ From a Tauutuutu perspective the structure has led to a loss of balance, whereby the basic cultural units, whānau and hapū, have become decentralised or understated in favour of iwi authority.¹⁴² In response new decentralised models are beginning to emerge in post settlement iwi that aim to spread mana and establish reciprocal mutually reinforcing relationships between scales. For example, Te Rūnanga o Ngāi Tahu (TRONT) has for several years been working to re-balance centralisation in relation to decentralised economic development. As TRONT states, it “exists to support Papatipu Rūnanga

and whānau. Papatipu Rūnanga have the opportunity to enhance their individual rangatiratanga and to generate significant and sustainable economic returns to meet their needs.”¹⁴³ For example, most Papatipu Rūnanga (representing hapū) within Te Rūnanga o Ngāi Tahu have now established their own holdings companies and start-up initiatives that are governed, managed, and operated by whānau – often in the farming, marine tourism, and seafood sectors. Many of the entities have co-investments with Ngāi Tahu Holdings Corporation and leverage the expertise and knowledge (legal, commercial, and technical) held at the central scale.¹⁴⁴ These models are fundamentally emerging based upon the ethic of Tauutuutu that demands balance and reciprocation, and in turn flat network centred business models rather than hierarchical.

The corporate-beneficiary model has been a proven success in the context of economic growth, however, like TRONT, as these entities grow in scale there is increasing pressure to decentralise and distribute mana to establish balance. Consequently, we are now seeing new models of development emerge over time that rather than top-down and centralised will become flat business network models based on nodes that work together to achieve mutually reinforcing economic goals whilst maintaining a dynamic equilibrium between centre and periphery. However, the majority of Māori entities still primarily operate using the corporate-beneficiary model, which encourages the specialisation of skills and expertise for the commercial and community-focused roles respectively, but also grows the risk of Western commercial incentives contributing to mission drift between the entities.¹⁴⁵ Therefore, effective, bespoke mechanisms in the structuring and governance of Māori entities are required to enable both operational excellence as well as adherence and embodiment of traditional value sets. The emphasis on these structures is on the transfer of mana from the centralised body to hapū scale to counter the imbalance presented through the centralisation of capitals. For example, the governance of tribal corporations is placed in the hands of hapū leaders from marae-centred communities. Furthermore, attempts are made to develop employment, training, and procurement policies, that support tribal members to work, train, or contract to tribal development and commercial entities. This attempt to create balance cannot, however, entirely overcome the difficulty of a model that turns the production, or corporate branch of the entity, into the ‘distributors’ of capital and the non-governing owners into the ‘beneficiaries.’

The economic success of the model, and its role as a vehicle of self-determined tribal development has generated a net-positive and created the conditions for new and future decentralised models to emerge – it was a necessary developmental stage. Fundamentally, the Tauutuutu ethic

continually drives the community owners of Māori corporations, and governing representatives, to focus on processes, and models to support the redistribution of mana back from centralised bodies back to marae-centred communities. In an economic sense the result is the continual flow of capital from centralised bodies to the periphery, albeit with enough capital retained to maintain and grow the mauri of the centre. Further, as outlined previously with the 'TRONT' example, capital flowing to the periphery is again being reinvested into enterprise at the local scale.

Maori Trusts, Authorities and Incorporations

The Māori land trust, authorities, and incorporations are not entities emerging from settlement assets but represent the remnant Māori land still held in Māori ownership. They are owned primarily by the descendants of traditional whānau and hapū groupings, though they cannot be seen as aligning well with traditional forms of property rights for a number of reasons including the shareholder structure and rules, and the broken and mixed lines of descent and inheritance. As outlined previously, Māori land has been subject to constant regulatory changes that have made the establishment of sustainable enterprises on this land difficult. From the 1900s, the combination of land alienation, which greatly reduced the quantity of land and resources available per person, and bilateral succession whereby land inheritance was divided each generation equally between descendants, land became insufficient to meet economic needs.¹⁴⁶ Furthermore, decision-making became increasingly difficult due to growing numbers of owners per land unit and the imposition of alien forms of property right and governance. Ultimately, this scenario can be traced to colonial structures and regulations designed to systematically alienate Māori from their land.

However, starting with the reforms of Ngata, collectivisation structures in the form of incorporations were developed in 1929 to support decision-making and amalgamate uneconomic units. As outlined previously, further development occurred in 1955 with the development of the Ahu Whenua Land Trust, followed by further reforms in 1977 with the Te Ture Whenua Māori Act (1977). This act expanded the types of trust structures that could be formed to reflect the different needs of Māori landowners. The structures may be considered to exist on a continuum from the incorporation at one end, which operates like a standard corporation with an elected board from among land shareholders (that are paid annual dividends), through to Whenua Tōpū Trusts that invest returns from enterprise activity into community initiatives.¹⁴⁷

Many of successful Māori land-based enterprises mentioned previously have originated from these Māori land governance structures including: PkW; Wakatū Incorporation; Tuaropaki; and Miraka.

These entities face many of the same issues concerning the centralisation and collectivisation of individually and whānau-owned property as experience by PSGEs. However, operating primarily at the whānau and hapū scale these entities are built on closer kinship ties and therefore appear more like family-owned businesses. Owners are more likely to have a direct role and participation in decision-making processes – meaning less separation between centre and periphery. Consequently, the demand for redistribution of mana based on Tauutuutu ethics is less. Nonetheless, given the impacts of bilateral succession and growth of owners over time, many of the same issue and demands may begin to emerge as is seen with PSGEs requiring, like TRONT, the development of decentralisation processes and models and the formation of flat business structures.

Value-chain design and formation

The development of value chains relies strongly on cooperation, coordination, and collaboration. Value chains are underpinned by the idea that firms do not act as functional silos but instead as a linked chain. Collaborative behaviour in value chains is based on strategic relationships between firms that foster trust and commitment and information sharing.¹⁴⁸ By aligning incentives and goals throughout the chain, productivity is increased, and the threat of opportunism is reduced.¹⁴⁹ Rather than acting in their self-interest, organisations begin to work for the good of the whole chain. There is a wealth of data that illustrate the economic and financial positioning advantages of robust value chains. In short, a robust value chain is dependent on mutually reinforcing and escalating levels of social investment (in terms of trust and relationships) to fundamentally support the core collaborative aspects required to develop successful value chains. Consequently, the ethic of Tauutuutu and the prerequisites for value chain formation are strongly aligned.

Two Māori firms that have described value chains as being at the core of their success are Miraka and Tatua. Both dairy firms have been described as ‘frontier firms’ – the country’s most productive companies – in research by the Productivity Commission.¹⁵⁰ Neither firm pursues a strategy of maximising production, instead focusing on maximising value in their products. On average, frontier firms’ value added per worker is almost double that of the second most productive group of firms and is nine times as productive as those firms in the bottom 10% of the productivity distribution.¹⁵¹ Maori firms need to serve multiple bottom lines driven by a range of values, including kaitiakitanga (guardianship), rangatiratanga (leadership, ownership), manaakitanga (hospitality), and whanaungatanga (relationship/kinship). The need to serve these multiple values requires a long-term focus on decision making by Māori enterprises. This need then flows through

to expectations on suppliers. A range of formal and informal networks among Māori businesses help diffuse knowledge and enable innovation and collaboration.

We set that expectation with our suppliers and providers and expect no trade-off for costs for our business because the contractors accept this in deciding to work or partner with us. This is now accepted in our market and not seen as an unusual request. Pukeroa also strives for community buy-in to its business and new developments. It forms these expectations through its visibility and stake in the city and the associated relationships. Our primary duty is to our owners, and communication there is critical.

David Tapsell, Pukeroa Oruawhata Trust

Maori firms share common features and values, such as whanaungatanga, which help bring Māori businesses together around shared goals. Formal and informal networks among Māori businesses facilitate the diffusion of knowledge, exploration of innovation and enable collaboration. These networks themselves can be a form of value chain innovation. Tauutuutu drives a collective purpose, it provides an imperative for continual improvement and deeper entrenchment of relationships throughout the value chain. Powerful Māori networks and models for working together create large commercial, social, and cultural opportunities.

Successful ventures among Māori business take time – they often take a “1000 cups of tea”.
Richard Jones, CEO Poutama Trust

Tauutuutu provides an uncompromising bond within Maori value chains, supported by multiple shared values, that adds a high level of robustness to the firm’s mission. Tauutuutu adds a purpose to the value chain beyond simply delivering value to the customer, as is the purpose of standard value chains. Instead, Tauutuutu driven value chains can drive innovation and value creation for multiple parties throughout the value chain. Suppliers benefit from exposure values and a purpose that adds value to their operations. In turn, these effects can spread out into regional economies and impact multiple realms such as wage growth, education, health, housing etc. The Productivity Commission has documented the beneficial impacts on communities and the national economy of Māori businesses with strong Tauutuutu underpinned value chains. The general business world already understands the benefits of strong value chains. Tauutuutu provides a framework to further enhance and innovate value chains, expand their impact, and generate new value types for multiple parties along the supply chain. Tauutuutu provides a natural progression from focusing on customer value alone to recognising and driving various economic, social, environmental, and cultural value-enhancing outcomes in addition to meeting consumer needs.

An example of a value chain underpinned by Tauutuutu obligations is the previously mentioned Miraka. It includes a 22.8% shareholding of Vietnam-based dairy manufacturing company Vinamilk. Miraka's Te Ara Miraka Farming Excellence Programme gives farmers the ability to earn an extra 20 cents/kg MS premium by meeting 31 standards, including 13 mandatory ones, based on five value pillars; ngā Tangata (people), Te Taiao (environment), ngā kau (cows), miraka (milk), and taurikura (prosperity). Miraka's business model encourages their suppliers to reflect the reciprocal obligation to the collective (in this case, employees) and to the environment; an inherent attribute of modern application of Tauutuutu.¹⁵²

Māori values are integral to Miraka's brand and the company offers another example of dairy innovation. It has a novel product range and pursues a sustainability ethos. For instance, it uses geothermal energy for processing its milk and composts its biological waste for use in its native plant nursery. Miraka states it "recognises excellence through the Miraka supply chain – from the farm to the consumer. It is our way of acknowledging our team and suppliers when excellence is attained or exceeded in the manufacture of our product. Our suppliers are all part of the Miraka whānau (family)".¹⁵³

Chairman Kingi Smiler explains that Miraka "is fundamentally driven by the vision and strategy of participating in the value chain in a direct sense and having more control over a niche opportunity".¹⁵⁴ Specifically, Miraka has "created incentive schemes for farmers to add value to their milk-based around strong environmental credentials" and focuses on "having more direct contact with customers over the long term" through strong connections with their international distributors.¹⁵⁵ Māori beliefs regarding the wider environment sees Miraka use its position in the supply chain to see its farmers go above and beyond regulatory requirements for animal welfare. Miraka adds value by emphasising the core Māori beliefs and values by looking after their stock, the environment and treating their suppliers like family, ensuring that the entire value chain embodies these values.

The Ahikā Kai project is a Ngāi Tahu initiative which aims to revitalise mahinga kai enterprise through the promotion and commercial development of traditional and contemporary mahinga kai resources. This initiative can contribute to both social and economic development at the whānau (extended family) and rūnanga (sub-tribe) level.¹⁵⁶

The Ahikā Kai system was created in accordance with the central philosophy of Ngāi Tahu as well as the well-established social, cultural, spiritual and environmental relationship the people have with their mahinga kai resources. Policy was established, and standards are under development in the form of production guidelines. Through this process, the key differences between products sold under the Ahikā Kai system, and similar (or identical) products sold by outside competitors, can be identified. Overall, producers are expected to abide by best-practice to encourage social responsibility and environmental sustainability while ensuring some form of quality control and brand consistency. This expectation shows how Tauutuutu can manifest through supplier commitments and collaboration on a common vision.¹⁵⁷

One of the main purposes of the Ahika Kai initiative has been to engage with all the stakeholders within Ngāi Tahu (iwi, Rūnanga, whānau) to find out how to create a functional basis for the reciprocal relationships with the different actors in the mahinga kai value chain to work together for each other's mutual benefit. The Ahikā Kai value chain needed to be developed in such a way that it could support the sustainable development of participants' businesses while respecting their rangatiratanga (right to self-determination). Rather than outright control and/or direct regulation from a central governing body, a level of coordination, management and support at the tribal centre for the development and ongoing running of Ahikā Kai, along with ongoing consultation with the business members of Ahikā Kai, was seen to be the most appropriate approach.¹⁵⁸

Ahikā Kai provides the foundation for creating and maintaining symbiotic interrelationships and linkages not just with TRONT but also between business participants, as they utilise the same brand through the same website to sell their various products. Ahikā Kai demonstrates that once the interrelationships between the Indigenous actors in the value chain are aligned in mutual agreement with an appropriate policy and strategy, then it is possible to create a competitive advantage for products produced by Indigenous enterprises. This competitive advantage contributes to sustainable development. Rūnanga and whānau-owned businesses are the ones that directly benefit and profit from this symbiotic interrelationship, which in turn also proves beneficial for the community.

Customer relations

Growing values alignment with consumers and investors

It has been outlined above how Tauutuutu encourages mutually-beneficial mauri building relationships with the land and water over long time scales. Further, it demands that land use aligns

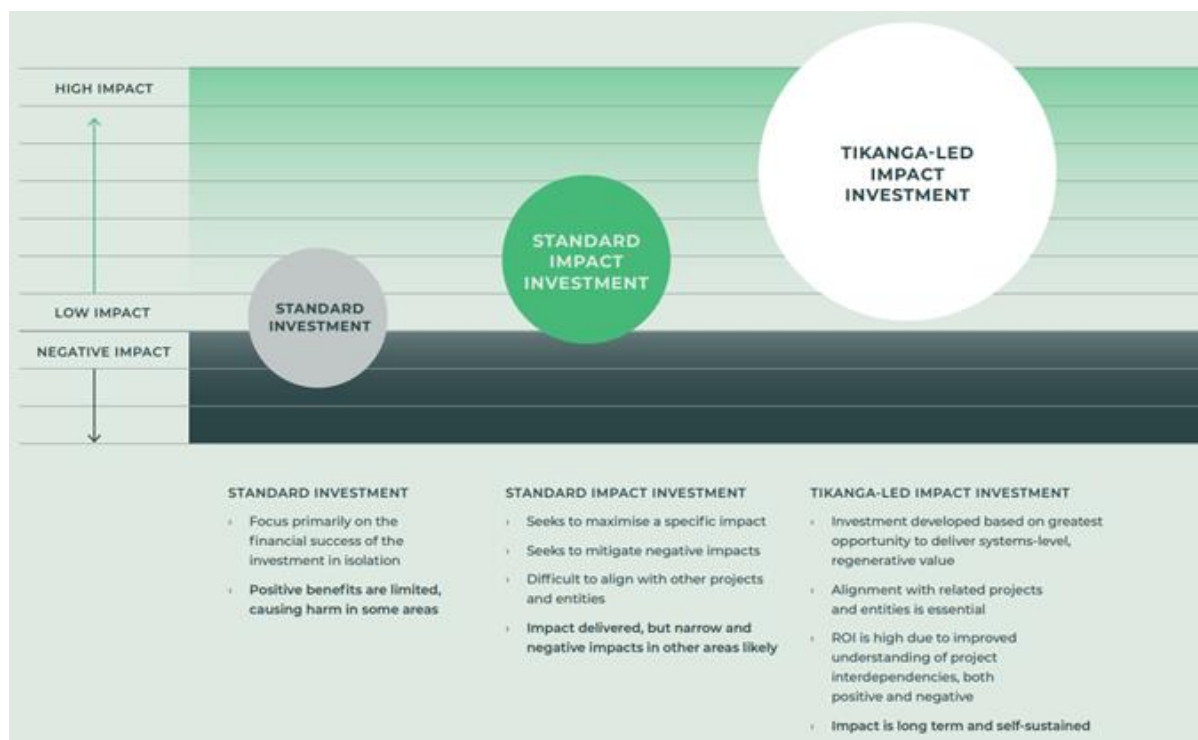
with land ecology to ensure a balance between immediate human resource needs, the needs of future generations, and overarching environmental integrity.

The primary purpose of mainstream businesses is to stay in business, increase the value and possibly sell the business. The Māori purpose is to look after our people and strengthen the business for the next generation... Most businesses are outwards looking inwards – Māori businesses are inwards looking out.

Robin Hapi, Māori Economic Development Advisory Board (MEDAB), Te Wānanga o Raukawa

In the social realm, Tauutuutu encourages the redistribution of mana back from centralised bodies to marae-centred communities, the impact of which is the continual flow of financial and political capital from centre to periphery. This encourages the development of flat business networks with community-based investment structures and enterprises working together with centralised corporations to achieve mutually reinforcing economic goals. Across these iwi, hapū, and whanau businesses there are employment, training, and procurement policies, that support member-owners to work in, or contract to PSGEs, incorporations, or land trusts. Fundamentally, Tauutuutu encourages the development of values-centric businesses focussed on a combination of economic returns, environmental integrity, communities, equity, well-being, innovation, and enterprise.

At the same time as these Māori business approaches are emerging, values-based business and trade has come to the fore internationally, with an increasing focus on values alignment. The global financial community is increasingly turning to sustainability, balancing people, planet and profit; a paradigm shift that aligns closely with the whakapapa-driven Māori worldview, where kinship brings an obligation that prosperity is shared, benefits are reciprocated, and the natural environment is protected and enhanced for future generations.¹⁵⁹



*Impact investment aligning with Māori values*¹⁶⁰: Global investment trends are increasingly in alignment with Māori traditional values and concepts, with impact investing assets under management (AUM) reaching \$1 trillion worldwide, including \$1.3 billion in New Zealand.

Over the next two decades, world financial markets will be significantly impacted as we see \$30 trillion USD transfer from retiring Baby Boomer generation to millennials, in an event dubbed the Great Wealth Transfer.¹⁶¹ Studies have shown that millennials are incorporating sustainability into both their investment and consumer behaviour, with 15% of millennials indicating they would rather purchase products from a sustainable brand (compared to 7% of non-millennials).¹⁶²

More and more consumers are making purchasing decisions to buy products that align to their own values, and the ability authentically demonstrate culture-driven, values aligned business models is a growing opportunity for culture to influence consumer behaviour in buying on product over another.¹⁶³

“Māori producers who integrate cultural values such as kaitiakitanga and social development into their production and marketing have real opportunities to convince sophisticated UK consumers that their values are in alignment, and potentially secure market niches and price premiums not available to commodity producer” Identifying Māori Interest in a UK/NZ FTA: Te Taumata, May 2021

Enduring relationships

The application of traditional Māori values to international business relationships and partnerships has become a key differentiating factor for Māori businesses, and values-aligned New Zealand businesses. Two such concepts include whanaungatanga (kinship) and manaakitanga (hospitality). Inherent within these key Māori values is Tauutuutu, exhibited through the mutual building of mana and social connectedness between businesses in a positive escalating manner.

A kinship approach favours enduring over transactional relationships, where connections via shared cultural values as well as demonstrations of hospitality set the foundation of any subsequent business relationship. Shared perspectives offer key opportunities to bridge the cultural gap with customers, partners, or investors. Common examples include reciprocal gift exchange, deference to ancestral wisdom, intergenerational time horizons, and the importance of collective belonging in both in social and organisational settings.

Gift exchange is a clear example of the traditional application of Tauutuutu in contemporaneous business settings to engender trust and foster a sense of integrity with partners. This grows mutual respect, shared understanding of cultural paradigms, and manifests manaaki in terms of host responsibilities and acknowledging the mana of the other party.

A number of Māori-led trade delegations have visited Asian countries in recent years, where a resonance with Māori social, environmental and cultural values creates a point of difference, which leads to business opportunities¹⁶⁴. Ministerial trade delegations to China created a foundation of cultural exchange upon which several successful Māori-Chinese business partnerships have been established, including between Miraka and Shanghai Pengxin, New Zealand Manuka Group and pharmaceutical company Tong Ren Tang.¹⁶⁵ As mentioned elsewhere in this report, other partnerships across Asia have been formed, including Miraka and with Vietnamese Vinamilk and Waiū Dairy with the Japanese company Imanaka.

In 2017 Ngāti Kahungunu hosted the Taniwha Dragon Summit; a two-day gathering at New Zealand's national kapa haka festival, Te Matatini, showcased several successful Māori-Chinese partnerships and created a culture-leading environment to explore further opportunities. The full capacity (250 attendees) gathering brokered over \$138 million in deals over the two-day summit.

Industry collaboration and partner formation

Māori agribusiness have formed a range of collaborative structures that can be seen as manifestations of the Tauutuutu framework. While in some cases these structures can be traced back to traditional forms, often with shared whakapapa as a foundational base, in other ways they are novel structures designed to deliver reciprocal benefits for all partners. These benefits are often multifaceted, as well as providing economic incentives these collaborative structures also deliver positive social and environmental outcomes, increasing both mana and mauri. “Collaboration among iwi, Māori landowners and Māori-owned businesses has been driven by a desire to spread risk, create critical mass and share knowledge.”¹⁶⁶ Furthermore, often these collaborative structures are themselves formed out of collaborative structures, providing a way to scale up while maintaining relatively decentralised and flat in form. In turn, this provides a form of equilibrium as the businesses grow in size, there are several layers of governance in place that provide forums for members to share feedback and engage.

Waiū Dairy (formerly the Kawerau Dairy Collective) is the “latest example in enterprise collaboration (whanaungatanga in Māori) and self-determination (tino rangatiratanga) that is being rediscovered as part of an economic renaissance within the Māori economy.”¹⁶⁷ 11 Kawerau-based Māori trusts, incorporations, and businesses partnered with a Japanese firm, Imanaka, to create Waiū Dairy, recently completing the company’s geothermally-powered milk powder facility.¹⁶⁸ Many of these Māori investment entities have their own complex internal collaborative structures, such as Māori Investments Limited (MIL), which is made up of four parts: Tarawera Land Company; Nga Maunga Kaitiaki Trust; MIL Ahu Whenua Trust; and MIL Horticulture Limited.¹⁶⁹ Waiū Dairy is itself an intricate partnership of different Māori entities alongside a Japanese firm. Imanaka’s “longevity, family orientation and local presence” through its ownership of New Zealand based company Cedenco Dairy were an important part of the decision to work with them.¹⁷⁰ A number of the Māori shareholders provide most of the raw milk product, while Imanaka brings “product and sales experience, and market connections in the Asia Pacific region.”¹⁷¹ Waiū Dairy not only aims to harness the productive capacity of its Māori owners, but also create jobs for the various shareholders of the trusts and incorporations, ensuring that the economic benefits of the development are shared.¹⁷² Alongside many of the investing trusts and incorporations, Waiū Dairy is also supplied by the Organic Dairy Hub, which is New Zealand’s only 100% farmer owned Organic Dairy Co-operative, who have offered to help any of the Māori shareholder farms convert to organics, the collaborative structure providing a developmental pathway.¹⁷³ There are a number of different levels of mutually beneficial synergies emerging out of the Waiū Dairy

collaboration, including the combination of international expertise and local resources, the capacity to directly benefit shareholders through employment, and the capacity for transitioning to a more sustainable and profitable form of operations.

To expand on previous discussion concerning Awhina Group, this entity was formed over 26 years ago, bringing together 6 Maori Incorporations and 18 Ahuwhenua Trusts who now have between them have 120,000 hectares, which includes 70,000ha of farmland and 16,000ha of forestry. Alongside farming and forestry, various members “also run several other enterprises and activities including geothermal power interests, large glasshouse developments, tourism operations, and international marketing relationships.”¹⁷⁴ The Group provides a business structure for the members that facilitates “enduring relationships with like-minded people, aligned in thought and action” as well as “fostering a collective approach to generate economies of scale.”¹⁷⁵ Awhina offers members discounts on contract pricing and fuel, deals on vehicles, supply agreements for livestock, and help with negotiations. Awhina Group explains, “With whakapapa as the key value for the Awhina Group our connection to the land, water and people are paramount.”¹⁷⁶ Awhina delivers economies of scale for its members, plus it also provides both informal and formal networking and collaboration potential through the diverse portfolio of businesses operated by the partners.

Te Rua o Te Moko is a collective business structure formed by four Māori trusts whose individual blocks were uneconomic to farm. Te Rua o Te Moko consolidated their resources, and five years after their formation they won the Ahuwhenua Trophy for creating what was the Trophy described as “an economically and environmentally sustainable dairy operation.”¹⁷⁷ Their success was premised on a long-term vision, which saw owners “forego dividends while the farm became established.”¹⁷⁸ Short term financial gain was sacrificed for both longer term returns, and maintenance and growth in mauri. The collective also runs a training programme for shareholders, helping to get them into the agriculture sector, building mana. This also has an environmental focus, as the chairman explains, “I would love for our people to be operating this farm, to be the next managers and governors. That’s really kaitiakitanga in its truest form for me.”¹⁷⁹ “Te Rua o Te Moko is an example of collaboration between individual trusts that wanted to utilise their land or assets but do not have the scale to enter business on their own. Available data shows significant economic growth through collaboration as a joint venture. The example also shows how a successful economic business can provide access to career pathways in agribusiness (and socio-

economic benefits) to their people.”¹⁸⁰ The joint venture between the four trusts has generated economic, social, and environmental benefits in a balanced fashion.

Transitioning to an agricultural system operating within a Tauutuutu framework requires a range of farm, catchment/ecosystem, regional, and national level changes. Many of these changes could be made in this order, starting at the farm level and working up to the national level though some changes would need to be implemented at specific levels.

These changes should be calibrated for different contexts rather than applied universally, and while some training, guidance, support, and legislative and regulatory encouragement from the regional and national level would be needed it should also be conducted in a collaborative, localised, non-hierarchical manner. There is an inherent flexibility within Tauutuutu, which ensures the capacity for contextual calibration.

Implementing Tauutuutu requires a strategic, collaborative, and iterative approach that ensures each farm, catchment/ecosystem, and region work together to create layers of interlocking systems that mesh together to provide a holistic land manage system for New Zealand.

Farm level

Individual farms form the constituent core of the Tauutuutu agricultural system, with the higher levels acting mostly as overarching governance and management structures as well as network for encouraging cooperation and collaboration. Farms need to align their governance, management, and operational practices and procedures to optimise mutually beneficial, or symbiotic interactions between humans and the farm ecosystem. From a Tauutuutu perspective, farming practices are judged in their efficacy in terms of their capacity to support the mauri generating capacity of the land and water. This has much in common with the concept of regenerative farming, whereby farming leads to a virtuous circle of improving the health of the land whilst increasing production and product value. Such farming approaches inherently encourage ecological approaches that embrace: land use diversification; crop rotation: polyculture; crop cover; tillage elimination; energy use reduction; carbon sequestration; and integrated or natural pest management.

Catchment level

Moving from the farm scale to the catchment scale the same principles of Tauutuutu apply. However, at the next scale up the investment into regenerative activities is extended from the farm or forest scale to the catchment and community. With an eye toward to building the mauri of

ecosystems, and the communities embedded within them, Tauutuutu ethics foster relationships, interactions, and the development of technologies towards these ends. In practice, for example, this would involve the formation of community action groups and integrated catchment planning that reinforces mutually beneficial escalating relationships between land managers, the environment, and community.

Regional level

Regional councils already have the main responsibility for environmental management and have existing oversight of farm management plans, positioning them as an ideal go-between for cross-level engagement. Iwi also have a role through the formation of iwi management plans that guide councils. The primary role of regional authorities is to facilitate and support the positive escalating relationships as outlined at the catchment scale, this would include strategic planning and integration that transcends private boundaries; consensus building; collaborative networking; education and advice provision.

National level

It is beyond the scope of this paper to determine how the implementation of Tauutuutu would be applied at a national scale, other than to say that regulatory encouragement, cross-agency coordination, institutional support, and infrastructure investment would be needed to complement and support catchment and regional scale planning.

The ethics of extending Tauutuutu

There are questions regarding the successful uptake of Tauutuutu as a land management and economic development ethic within Aotearoa. **At the core, the issue is one of control over culture and the risk that the underlying principles of Tauutuutu become misinterpreted or distorted.** This is reflected for example with the use of concept of kaitiakitanga, which is now often used in ways divorced from many of its deeper and more complex meanings. There are also related questions over the potential commercialisation and consequent devaluing or disrespecting of Māori culture. These issues do not exist in a vacuum either, but rather are made more resonant and pertinent by the history of colonisation, with its concomitant cultural denigration and assimilation.

Questions over the use of Māori knowledge, beliefs, values, language, and symbolism by non-Māori have risen frequently and there are many examples of both good and, mostly, bad outcomes. These run the gamut from the possible genetic modification of taonga (treasured) species through to Air New Zealand's "appropriation" of the koru as its corporate symbol, from 'ownership' of centuries worth of matauranga (knowledge) of New Zealand's climate through to the "contentious legal history" of the haka Ka Mate.¹⁸¹ Without going into a detailed history of these many interchanges, a general summary would be that historically they have not been equitable or fair for Māori. While this has been improving there are still many examples of what might be mildly called 'cultural appropriation' and more dramatically and legalistically referred to as 'intellectual property theft', though neither term captures the depth of the sense of loss, indignation, sorrow, and anger that these can generate. Mead refers to it as "the second wave of colonization".¹⁸² As conceived in the 1993 Mataatua Declaration on the topic, it is not just a legal issue, but one of "indigenous self-determination."¹⁸³

There are three key requirements to overcome or at a minimum mitigate the risks of extending Tauutuutu: Māori need to be involved in the decision-making process from the outset, with significant input and authority; Māori need to benefit from the approach; and it needs to be respectful of the concept's original purpose and meaning. This means that Māori retain political control, whilst also ensuring that their culture is used appropriately and respectfully, and they share in the economic benefits that the use of their culture generates. All

three requirements must be met in full, and they need to be maintained, with ongoing Māori oversight.

The potential barriers to Tauutuutu uptake

Different worldviews, beliefs, values, and principles

A worldview is the primary lens through which people understand reality. It is “the fundamental cognitive orientation of a society, subgroup, or even an individual.”¹⁸⁴ Worldviews are a set of presuppositions that humans hold about the makeup of their world. These presuppositions can range from basic understandings of sensory experiences through to more central beliefs, values, or principles that guide thought and behaviour. As de Witt explains, worldviews represent “fundamentally different “philosophies of life” in conflict about what is real (ontology), how one can know (epistemology), what is of value (axiology), the nature and role of human beings (anthropology), and how society should be organized (societal vision/social imaginary).”¹⁸⁵ Because they provide such a fundamental lens of the world, worldviews – and their underlying beliefs, values, or principles – have a significant influence on axiological uptake. Worldviews have been shown to influence decision making, including regarding sustainable behaviour and generosity.¹⁸⁶

The modernist Western worldview can be traced back to Ancient Greece and has been further entrenched by Christianity, the Enlightenment, and the scientific and industrial revolutions.¹⁸⁷ This worldview has dominated Pākehā culture in New Zealand. It has a number of relevant presuppositions:

- Individualistic: resources are individually owned, transactions maximise individual outcomes;
- Rationalistic: favours logical, abstracted thought is prioritized;
- Dualist: sees humanity (culture) and nature as separate;
- Progressivist: values growth, views life linearly.¹⁸⁸

These presuppositions are highly generalised and even when strongly held they may not always be rigorously or evenly applied. Also, the modernist worldview in New Zealand and around the world has been transforming in recent decades. Yet they still remain relatively dominant. **Critically, these presuppositions may be contrasted key attributes of te ao Māori (the Māori worldview)** which include:

- Communalistic: resources are used, managed, and exchanged with the broader human and non-human environment in mind;

- Phenomenological: experience, embodied wisdom, and tradition is explicitly valued in decision-making in addition to rationalistic thought;
- Holistic: culture and nature are not separate, but rather humanity is a subset of nature;
- Equilibrium: favours balance and harmony, views life cyclically.¹⁸⁹

While wholesale adoption of the Māori worldview is not necessary for the implementation of Tauutuutu, the ways in which worldviews canalise how societies think and act are important to examine and consider. The key presuppositions of the Western worldview will now be briefly scrutinised.

Individualistic

The emphasis on the primacy of the individual poses one of the most significant constraints to Tauutuutu adoption. Individualism is intrinsically connected with the idea of private ownership of land. This contrasts with the traditional Māori property right structure, which was built on a web of ecologically and whakapapa determined user rights held at individual, whānau, and hapū scales. The right structure also entailed an obligation structure that encouraged the mana and mauri enhancing relationships between humans and resources as defined by Tauutuutu ethics. The essential criticism of the individualised private right structure is that it fails to consider the aggregate environmental impacts of each individual property owner acting independently.¹⁹⁰ In comparison, based on Tauutuutu, the Māori property right structure requires collective actions to be considered and simultaneously a collective obligation to ensure on-going mana and mauri enhancing relationships between individuals, whanau, and communities.

Individualised property is a reflection and reinforcement of individual self-interest, which runs counter to the ways of viewing and relating to land under Tauutuutu. Self-interest is contrary to the belief in mutually-beneficial exchange that drives Tauutuutu. While some studies of Pākehā and Māori individualism-collectivism show that Pākehā are more strongly individualistic than Māori it is not a simple binary.¹⁹¹ Context is critical, with Pākehā scoring similarly to Māori in terms of collective values towards family and friends, but lower when relating to strangers in some studies.¹⁹² Similarly, other studies show the differences among ethnic groups are much smaller than the differences in each domain of individualism – independence, goals, competition, uniqueness, private, self-knowing, direct communication.¹⁹³ Furthermore, while New Zealand farmers have been characterised as individualistic historically, they also have a long history of working in collectives and cooperatives.¹⁹⁴ For example, in a recent study on New Zealand farmers’

perspective on land use change, “all the farmers expressed a willingness to collaborate.”¹⁹⁵ There have been a number of catchment level management groups, such as the Pomahaka Catchment Group, created by non-Māori farmers which show this willingness to collaborate in action.¹⁹⁶

Rationalistic

Traced back to Ancient Greek philosophy is the belief in the primacy of rational, reasoned, abstracted thought in decision-making. **There are several issues with the presumption of abstracted rationality in decision-making. The first is that it excludes other important influences such as emotionality, worth, context, and ultimately, wisdom. The other is that it has been proven to be largely fictitious in terms of its apparently central role.**¹⁹⁷ Numerous studies have shown that the ‘rational actor’ as conceptualised in economic, legal, and political fields is an inaccurate model of decision-making.¹⁹⁸ Rationality generally only considers ‘the facts’ – which are usually the objective and measurable elements – at the expense of the often more important considerations such as the underlying significance or importance of the subject of the decision and those making it. It is based on ‘information’ rather than insight, performing cost-benefit analysis instead of applying wisdom. Wisdom is “the application of tacit as well as explicit knowledge as mediated by values”; it is ‘knowledge in context’.¹⁹⁹ Rationalistic decision-making is also understood to be universal and abstract – it can be applied anywhere in the same way. At the same time, it breaks wholes into bite sized quanta, universalising while fragmenting.²⁰⁰ Wisdom, however, is context specific. Applying universal, abstract, information-driven thinking to complex, emergent, and localised agricultural realities is problematic. **The rational presupposition contravenes the forms of decision-making encouraged by Tauutuutu.**

However, despite the presumed dominance of abstracted rationality in decision making most New Zealand farmers do make most decisions based on abstracted reasoning but on other key determinants such as values, family, vocation, community, and impact on land. In a recent study of New Zealand farmers’ decision-making criteria, economic factors were weighted similarly to both social and environmental factors.²⁰¹ Another study of New Zealand farmers found “Farmers with a high managerial ability appear to rely a lot upon tacit knowledge that they have built up through experience.”²⁰² Both of these findings suggest a potential openness towards the broader adoption of Tauutuutu.

Dualist

The dualist view of humanity divides humanity from nature. It views the natural world as something separate from and inferior to the human world. Built on the Christian

exceptionalism of humanity and driven by scientific materialism and capitalism's commodification of nature, this view has enabled rampant environmental destruction.²⁰³ The disembedding of culture from nature has occurred in Western thought over centuries, with the natural world becoming increasingly commodified. Land is turned into property and the various minerals, flora, and fauna found on, in, and above are viewed as resources that only have a use value. **This presupposition conflicts with the Māori view of whakapapa that provides the foundational view of reality that underpins Tauutuutu.**

This view of the human-nature has weakened in recent decades largely because the environmental degradation that it has facilitated has made the connections between humans and the natural world they live in and rely on much more obvious.²⁰⁴ Globally, the World Values Surveys has asked whether human beings should 'coexist with nature' or 'master nature', with increasing numbers of Western countries answering the former in successive surveys.²⁰⁵ In New Zealand, the MfE *Environment New Zealand 2007* report noted that "Pākehā or European relationships with New Zealand's environment have also changed over time", noting how both concerns had expanded to encompass large scale climatic and ecosystemic issues and attitudes had also shifted from seeing the environment as a primarily economic resource to also having social and cultural significance.²⁰⁶ The 2015 Nuffield scholar and farmer Dan Steele, wrote that: "Agriculture and tourism, New Zealand's two main export industries, are inherently linked and both will live or die on our environmental health and reputation, but our environment is regressing and unless this is addressed now, our economy will regress."²⁰⁷

Progressivist

The progressivist presupposition values growth and change over harmony and stability. Progress in terms of material gains is viewed as a central goal.²⁰⁸ In terms of how this impacts natural resource use, it means that more is demanded from these finite resources. This increased extraction is often facilitated by technological improvements, though even with these there are hard limits, as well as direct and indirect consequences. Progress is the dynamo that has driven Western societies to discover new scientific insights and develop technological innovations, but it also generates an unsustainable growth dynamic that is focused on short term gain at the expense of long-term sustainability. The influence of this model on New Zealand is clear, with the numerous resource booms of the 19th century soon ending as the need to take more met with the hard environmental limits of each species being plundered. **This presupposition is at odds with**

the notion of balance that lies at the heart of the Māori worldview, and the importance of mauri that underpins it.

There are signals that the centrality of progress as the key driver of the economy and wider life is fading. The World Values Survey also asks if “protecting the environment should be given priority” over “economic growth and creating jobs”, with increasing numbers of surveyed countries agreeing with environmental protection over economic growth.²⁰⁹ That said, Pew asks a similar question and found that responses from Americans in 2009 were the lowest in favour of environmental protection since they began asking the question in 1992.²¹⁰ New Zealanders answered the World Values Survey 43% to 39% in favour of environmental protection in the 2011 survey, which had shifted to 55% to 23% in 2019, which shows a shift away from progressivism in the country.²¹¹ A number of surveys and studies have found increasing numbers of farmers holding positive environmental values.²¹²

Post-colonial relationships and dynamics of power

Colonisation is not an historical event, it is an ongoing process that has both structural and psychological components.²¹³ Structurally, it involves the transfer of land, and the replacement of indigenous political, economic, and social institutions with colonial institutions.²¹⁴ The creation of a colonial state involves the near-total loss of indigenous political sovereignty, economic autonomy, and societal control. It is a massive shift in power, from indigenous peoples to the coloniser.

As well as the more obvious tangible aspects of this process, such as the alienation of land and its often-dramatic transformation from indigenous forests into primary production, there are intangible components that are as significant if not as immediately obvious. **One of the least visible but most powerful is the colonial narrative.**²¹⁵ **The colonial narrative is the story the coloniser tells themselves and the indigenous people that justifies colonisation.** It is a story that portrays the colonial institutions and wider culture as superior and seeks to rationalise the coloniser’s actions, easing concerns about the domination of another people.²¹⁶

The colonial narrative portrays Western ‘civilisation’ as superior to indigenous institutions and culture. It categorises societies, from ‘primitive’ through to ‘modern’, indicating that indigenous peoples are less evolved than their Western counterparts. This is done through a process of simplification and emphasis on difference over similarity, obscuring similarities and

turning nuanced, dynamic, and complex cultures into simplistic, fixed, and contrasting caricatures.²¹⁷ Māori culture and thought have been, and continue to be, portrayed as inferior and backward, and Māori have been, and continue to be, portrayed as less competent, less practical, lazy, unscientific, and uneconomic, amongst other negative characteristics.²¹⁸

The narrative is found in laws, books, media, and songs, amongst many other sources. Critically here, the narrative is also imprinted into the mind of the colonisers, shaping the way they view indigenous people. The narrative still plays a role in Pākehā-Māori relationships. This is clear in the way Māori are negatively portrayed by the media, the way they are (mis)treated in health, housing, education, and criminal justice, amongst many other institutional systems.²¹⁹ A shared report by the Police and Te Puni Kokiri, *Challenging Perspectives: Police and Maori Attitudes Toward One Another*, found that: the police as an organisation is hostile to Maori and their cultural practices; the police force has an institutionally racist culture; police hold negative perceptions of Māori; and police officers have racist and negative preconceived ideas and attitudes of toward Māori and Māori issues.²²⁰ Despite what is called the ‘standard story’ in New Zealand, that colonisation is a thing of the past and that the country exists in relative bicultural harmony, colonial structures and the colonial narrative are still present, and Pākehā attitudes towards Māori and their culture remain negatively impacted.²²¹ Even Pākehā who express empathy for Māori and the structural and psychological impacts of colonisation have been shown to experience an indirect discriminatory backlash.²²²

The ongoing impact of the colonial narrative on Pākehā-Māori relations is a barrier to the uptake of Tauutuutu across New Zealand. Implementing a system derived from a culture that has been portrayed as an intellectually inferior and less practical, economic, or knowledge-based faces an uphill battle in perception as the burden of proof is significantly higher. This may be true regarding New Zealand’s land management sectors, which is more conservative than the country as a whole. Conservative values have been found to impact views on assimilation, multiculturalism, and immigration, which can all provide a proxy for axiological uptake.²²³ One study found that there are two forms of Pākehā opposition to biculturalism, in principle and resource-specific.²²⁴ The former are opposed to biculturalism generally, while the latter agree with it in principle but do not believe this should translate to settlements that include financial and rights (e.g. property, fishing quota) restitution.²²⁵ The conservatism of an individual was a major determinant in both forms of discrimination.²²⁶

Generally speaking, Māori culture is still viewed relatively negatively by much of the wider New Zealand populace. A 2016 survey found that while 68.5 % of Pākehā believed Māori culture was important for defining New Zealand, only 39% were strongly supportive of te reo Māori being more widely used.²²⁷ This division mirrors that between general opposition to biculturalism and resource-specific. A Te Puni Kokiri Māori report found that Māori culture is “considered to be more “in” overseas than in New Zealand.”²²⁸ This led Aroha Mead to point out that “[i]t’s cool to be Māori overseas, but for us here, it’s a daily struggle.”²²⁹ In her work, Morris notes the absence of Māori restaurants and the general lack of domestic interest in Māori cuisine is because “Māori have a ‘spoiled identity’ for Pākehā.”²³⁰ There are several areas of particular interest here, Pākehā attitudes to Māori commercial ability and knowledge as they relate to the power dynamics within New Zealand’s post-colonial society.

Regarding commercial ability, despite evidence to the contrary in the early golden age of the Māori economy, Māori were soon cast as economically inferior. As Sir Robert Stout told the Native Land Laws Commission in 1891: “The natives cannot equal the Europeans in buying, or selling, or in other things. They have not gone through the long process of evolution which the white race has gone through.”²³¹ The foremost study of the traditional Māori economy, by Raymond Firth, was called *The Primitive Economics of the New Zealand Maori* when published in 1929, with the term ‘primitive’ only being dropped decades later. Māori land use has frequently been described as ‘uneconomic’, with the 1953 Māori Affairs Act compulsory acquiring ‘uneconomic Māori land interests’.²³² In their 2011 study of the way Māori business was portrayed in the media, McCreanor et al. concluded that “Despite numerous historical and contemporary demonstrations of their business acumen, hegemonic discourses represent Māori as dishonest, lazy, incompetent and unfairly privileged in this domain.”²³³ The colonial narrative remains impactful, as Devlin notes, there is “a negative, stereotypical view that Māori business is usually bad business”, based on “Pākehā common sense [that] has assumed that Māori were inherently unsuited to business, as a result of individual and cultural characteristics.”²³⁴ **This ongoing portrayal of Māori as ‘uneconomic’ and Māori business as ‘bad business’ could hinder uptake of Tauutuutu as it contradicts its utility as a means of growing commercially successful operations.**

Māori knowledge, or matauranga Māori, is also viewed somewhat negatively, particularly by ‘Western science’. Reflecting the colonial narrative, Cooper notes that “Māori are regarded as producers of culture rather than of knowledge.”²³⁵ Durie explains that there is a “scientific disbelief in indigenous knowledge” because “Indigenous knowledge cannot be verified by

scientific criteria.”²³⁶ Smith et al. acknowledge that while it was accepted Māori knew their environment well, their “knowledge was often seen as a primitive non-scientific form of knowing, and their knowledge and the way they articulate it are frequently dismissed in environmental cases as lacking any empirical scientific base.”²³⁷ As Stewart explains, “Many who deny the concept of ‘Māori science’ regard it as nonsense, and part of the growth to dangerous levels of ‘anti-science’ attitudes in society.”²³⁸ While matauranga Māori has become increasingly accepted in New Zealand – as the Vision Matauranga science investment policy indicates – it still faces either direct discrimination or classification as a supplementary or lesser system of knowledge than science.²³⁹ Increased acceptance has, in some cases, seen it go from being viewed as ‘primitive’ to supplementary, at best.²⁴⁰ Embodying this, Dickinson, writing in a special edition on matauranga in the Journal of the New Zealand society, claims that the “enormous asymmetry between science and mātauranga is not a bias on the part of scientists... [as] they are not ‘separate but equal’.”²⁴¹

The dismissal or denigration of matauranga Māori is problematic as it forms the core of insights into Tauutuutu in terms of land management.

Issues limiting andragogy

Another barrier to the uptake of the Tauutuutu framework is the capacity of farmers to adopt new practices and attitudes that conflict with their current positions. This is an issue of adult learning, or andragogy. Learning here is understood as the acquisition of both knowledge and attitudes.²⁴² Critically, learning is “multi-dimensional and should not be only measured by the recall of facts or the successful application of a skill. Learning includes the development of judgement, attitudes and values.”²⁴³ In terms of land managers adopting Tauutuutu, they would need to learn new knowledge, as well as undergoing value or attitudinal change.

Knowledge is both information, or conceptual knowledge, and skills, or procedural knowledge.²⁴⁴ Knowledge has been described as the ‘fourth factor of production’ after land, labour, and capital.²⁴⁵ Tauutuutu requires a more integrated, complex knowledge than productivist approaches. As an analogue, it has been shown that sustainable agriculture is more “knowledge intensive involving the adoption of technologies that require a high level of management skills, with an emphasis on observation, monitoring and judgement.”²⁴⁶

In terms of agricultural knowledge, this can be divided into three types: transfer of technology – desirable farming practice using science-based component technologies, farmer learning as the adoption of external innovations and facilitation as the delivery of these innovations; farm

management development – which operates within strategic rationality and aims to support the practices of the farmer as an entrepreneur engaged in an economic enterprise focusing on the farm as a whole; and the ecological knowledge system – help land users to become experts at managing complex ecosystems in a sustainable manner.²⁴⁷

Agricultural knowledge has become increasingly hierarchical and outsourced. In the process of “agricultural modernisation, standardized knowledge (in the form of science based R&D) has become the dominant knowledge form.”²⁴⁸ The “increase in ‘codified’ knowledge has redistributed knowledge away from the farm” as “farmer knowledge was replaced by external ‘specialist adviser’ knowledge.”²⁴⁹ The modern farm has also been broken up into discrete parts rather than being viewed as an interacting system. Many management tools and systems divide “the problem into different technical and bureaucratically convenient palliative packages” which holds “particular consequences for distancing farmers... from their natures, by fragmenting these into particular and highly regulated components.”²⁵⁰

An attitude is the set of emotions, perceptions, beliefs, and behaviours an individual has towards a particular object, person, thing, or event. Attitude is critical in the willingness for farmers to adopt *Tauutuutu*. Willingness to adopt is closely aligned with the ability to adopt.²⁵¹ There are several underlying determinants towards attitude that have been shown to significantly influence farmers’ adoption of environmental management practices:

- Personal beliefs: individual values, principles, doctrines etc.;
- Self-identity: the extent to which behaviour is considered to be part of the self;
- Subjective norms: social influences;
- Perceived behavioural control: perceptions of the ease or difficulty of carrying out the action;
- Response-efficacy: the belief that the actions can make a difference.²⁵²

All of these can be influenced through learning; however, the first three are more deeply embedded and harder to change while the last two are more easily influenced. **The traditional view of farmers in New Zealand is that they have a conservative attitude, that they see themselves as individualistic, pioneering, and hard-working, and that farming’s high status in New Zealand plays an important role in their self-identity.**²⁵³ These would suggest that land managers in general are not well suited to adopting *Tauutuutu*. **However, while these traditional views still have some relevancy in the last three to four decades the practice, constituency,**

and culture of farming has changed significantly.²⁵⁴ New Zealand agriculture has largely transitioned from a productivist approach, which was focused on selling as much commodity to the guaranteed UK market, to a more business-oriented, innovative, and adaptive mode of production.²⁵⁵

These changes have meant that many “farmers have found greater freedom to think for themselves and their activities differently. They have looked for other opportunities to increase or vary their sources of income in order to manage their risk and incidentally increase their resilience to survive through extreme weather events, changing markets and exchange rate fluctuations.”²⁵⁶ **The shift in focus towards efficiency and consumer concerns has also seen environmental issues become more important to the farmers.**²⁵⁷ There have also been wider societal and environmental value changes in New Zealand that have influenced farmer’s own environmental values.²⁵⁸ Fairweather et al. found that New Zealander farmers could not be divided into conventional and alternative – e.g. organic, agroecologic etc. – but rather even the conventional farmers held open views regarding environmental management and protection.²⁵⁹ The change in farming’s status since the 1980s in New Zealand has also impacted farmers’ self-identity. As Hunt et al. explain “status based on the importance of farming was still very prevalent among farmers themselves, [though] some were mourning its passing and experiencing a loss of identity.”²⁶⁰

The adoption of Tauutuutu is dependent on the land manager’s willingness and ability to learn both the information and skills as well as the underpinning emotions, perceptions, beliefs, and behaviours. Important in this learning process is the adoption of an andragogical rather than pedagogical approach. The pedagogical approach dominates modern agricultural learning, despite its origins in educating children.²⁶¹ Boateng explains, “the lack of attention to upstream flows and neglect of farmers’ tacit knowledge by extension experts has contributed immensely to the negative impact associated with extension services.”²⁶² These two approaches to learning are vastly different. The child learner is dependent, has no valuable experience, is externally motivated, is told what to learn, does not need to know why they are learning and will apply the knowledge at a later date.²⁶³ By contrast, the adult learner is self-dependent, has valuable experience, internally motivated, intent on solving specific, relatable problems, needs to know why they are learning and will apply the new knowledge immediately.²⁶⁴ As Pretty and Roling argue: “The central principle of sustainable agriculture is that it must enshrine new ways of learning about the world, but learning should not be confused with teaching.”²⁶⁵ An andragogical approach would require that Tauutuutu not be communicated theoretically but in practice and in ways that

respected and fostered farmers' existing knowledge. **This would mean hands on, horizontal learning environments where the approach was collaborative.** It is possible that the more practical, hands-on method would help foster and build the deeper values-change that is required.

Structural constraints

There are a range of structural constraints on the uptake of Tauutuutu. Understanding the structural constraints requires viewing the multiply layers of different biophysical, geographic, and demographic realities across New Zealand. Each individual land management unit has its own set of structural constraints, which are nestled within the wider regional and national constraints. There is “a considerable body of evidence that has shown that farm characteristics influence farmers’ decision making in relation to environmental management and their ability to adopt new practices.”²⁶⁶ There are a number of structural constraints at the regional level as well. Each region has different climatic conditions, topography, soil, rainfall, as well as different infrastructure, assets, and logistics networks, and different demographics. Finally, these farm and regional level constraints feed up into and are also influenced by the wider national context, with New Zealand as a relatively isolated and small country with a mountainous geography with a largely temperate climate.²⁶⁷ Four types of structural constraints are discussed below: built capital; demographic issues; and rigid and risk averse businesses and sectors.

Built Capital

This covers a range of infrastructure and manufactured assets, such as the national power grid, transport and logistics, irrigation, processing plants, well as farm type, tenure, and size. These factors can constrain the land use and agricultural business type.

Research has found that larger farms are more likely to adopt new environmental management methods as they have greater flexibility in decision-making and are generally financially better off, similarly drystock farms are more likely to participate over intensive farms, due largely to the different financial costs and benefits, and those who have 50% or more of their farm freehold are also more likely to participate.²⁶⁸ The average farm size in New Zealand is 270ha, far larger than the European average of 16.6ha, and larger than the US average of 176ha.²⁶⁹

Each region has its own built capital constraints. A report on developing forestry in Gisborne found that “gaps in physical infrastructure are preventing the region from obtaining its most

beneficial forestry outcome. In Gisborne most talk centres on the need for further processing facilities and an expanded port operation. On the East Coast concern focuses on the roads, logging truck numbers, alternative transport and secondary port options.”²⁷⁰ It also noted, “need for additional processing facilities is seen as economically essential.”²⁷¹ Another report focused on alternate land uses in Rangitikei noted that “the wider Manawatu-Whanganui region has lost much of its dedicated food storage (i.e. cool stores) and processing capacity e.g. closure of the McCain vegetable and potato chip processing plant at Feilding. The region does not have ready air access to international markets, instead perishable goods are transported to either Auckland or Christchurch.”²⁷²

One key issue is that existing infrastructure could limit the ability and attractiveness of adopting Taautuutu because it encourages certain types of land use and agricultural business type. For example, the Central Plains Water (CPW) scheme represents a significant infrastructure investment that favours intensive dairy production. The conversion costs for the CPW were roughly \$1.8 billion (as of 2018), with the scheme itself costing \$450 million, \$187 million of on-farm investment in irrigation infrastructure (e.g. pivots), and under \$1 billion in other conversion costs, including stock, sheds, fencing etc.²⁷³ There has also been industry investment in processing facilities of at least \$1.3 billion in the region.²⁷⁴ Irrigated Canterbury dairy farms are the most profitable and least risky across New Zealand dairy sector.²⁷⁵ However, the average dairy farmer in Canterbury has an equity to total asset ratio of only 33%, one of the highest in the dairy sector.²⁷⁶ The CPW represents a significant capital outlay which restricts land use to production methods that can deliver the required returns to facilitate the debt.

Recent modelling of a proposed nitrogen (N) allocation systems for producers in the Rotorua catchment provides insight into structural constraints. The modelling divided the catchment into biophysical zones based on soil type, slope and rainfall, established representative farm systems (dairy, sheep and beef, sheep and dairy support, and specialist dairy support) for each biophysical zone across small, medium, and large farms, and modelled protocols to reflect how Rotorua farmers would be most likely to mitigate nitrogen losses.²⁷⁷ Key impacts across scenarios was a 60-85% increase in forestry, 40% decrease in dairy, and a 37% reduction in sheep and dairy support area. The model found that “the scale of reductions required in the Rotorua catchment is so significant that most individual farmers experience a net cost due to mitigation.”²⁷⁸ However, they also found “increases in profit occur from improvements in efficiency (for example, by eliminating unprofitable inputs)” and that while “some transitions impose a cost to producers, de-

intensification also has some benefits in that it frees up capital invested in certain fixed assets (e.g. livestock or supplier shares).²⁷⁹

Demographic Issues

There are a number of key demographic issues that could constrain Tauutuutu uptake, including age, education, and labour availability.

Regarding age and education, Wilson and Hart explain that “well-educated younger farmers on economically buoyant farms” are more likely to participate in environmental management schemes.²⁸⁰ New Zealand farmers are older than most other workforces, older than the national average, and are getting older.²⁸¹ The average age of a beef cattle farmer in 2013 was 56 years, up from 53.5 in 2006. The average age of dairy farmers in 2013 was 41.7, up from 40.8 in 2006, and the average age of sheep farmers was 53, up from 49.9 in 2006.²⁸² New Zealand farmers have a higher education level than the average New Zealand population, with 53% of farmers having a tertiary education versus 39% for the wider population.²⁸³ While the education levels of New Zealand farmers would support Tauutuutu uptake this is somewhat mitigated by their increasingly elderly demographic trend.

There is a significant labour shortage in the agricultural sector both in general labour and highly skilled labour. Across the country thousands of workers are needed for seasonal harvests, with these roles often filled by Pacific Islanders and backpackers. At the other end of the spectrum, New Zealand also has a deficit in highly skilled farm workers, particularly heavy machinery operators, with hundreds of international workers needing to be brought in every year to meet this shortfall.²⁸⁴ A transition to Tauutuutu at a large scale would likely place even greater strains on the labour pool.

Rigid and risk averse businesses and sectors

A significant potential constraint to axiological uptake is rigid and risk averse businesses and sectors. There are a number of factors that prevent businesses from adopting new business models, including: lack of governance vision and strategy, managerial and operational limitations, resource restrictions, rigidity of existing routines and competencies, pre-existing supply chain commitments, reliance on established markets, and demand uncertainty.²⁸⁵ While an individual factor may dominate, generally several of these factors work in conjunction to impede innovation.²⁸⁶ Individual businesses will have varying attitudes, capacities and opportunities regarding adaptability and risk taking. However, often it is the established or incumbent businesses that

are the most risk averse and therefore will fail to adapt.²⁸⁷ Innovative business models require an entrepreneurial idea and an offering that provides novel value to customers.²⁸⁸ They must be developed in an iterative, non-linear, and feedback-driven process to find a match between their offering and market wants and needs. An innovative business model needs to be adaptive, characterised by rapid learning and the ability to respond to market changes.

As noted above, New Zealand farmers at an individual farm level have been shown to be some of the most adaptive, flexible, and innovative across the developed world, driven by their sudden and almost total transition from a highly regulated sector into the international market in the 1980s.²⁸⁹ While some individual farmers are less flexible, studies show that roughly two thirds of New Zealand farmers can be considered innovative and open to new methods and technologies.²⁹⁰ That said, being innovative and being open to risk are not the same and there is research that contradicts this correlation, showing that most New Zealand farmers can be classified as ‘moderate’ in terms of their openness to risk.²⁹¹ New Zealand dairy farmers are highly innovative but are some of the most risk averse in the sector.²⁹² Also, research in New Zealand has found that “older farmers are more risk averse, less willing to experiment, less likely to be influenced by social expectations, and more focused on financial performance. Older farmers are less likely to adopt new technologies and to have concrete plans to convert land and to intensify existing land uses.”²⁹³ New Zealand farmers, as noted above, are on average relatively old compared to the rest of the workforce, suggesting a higher level of risk aversion. Further research has found that “differences were found in the risk perceived and the risk management strategies according to ownership structure (owner-operators vs. sharemilkers) and geographic location (North Island vs. South Island).”²⁹⁴ This was measured across a range of potential risks, with sharemilkers more likely to perceive of higher risks across almost all, while North Island farmers in general had perceived less risks across a range of inputs including weather and labour compared to South Island farmers. Another New Zealand - based study of farmers found that “high production values and high environmental values [are] associated with a significant, though small, increase in risk tolerance.”²⁹⁵ Farmers who want both to increase their farms outputs and their sustainability objectives are more open to risk, which means that while there will inevitably be farmers who do not want to adopt a new system like Tauutuutu, those who do are likely to be driven by the twin goals of economic and environmental outcomes. Tauutuutu does not require all farmers to be equally open to risk, however, as the risk of adoption will decrease over time as the early adopters, who are naturally more risk tolerant, will show those more risk averse farmers how it can be done successfully.

At the sector level there are a number of factors that increase levels of rigidity and risk aversion, including the reliability of the inputs, the variability of the market, the levels of competition within the market, as well as a range of factors around the type of product or service the sector produces. While at the individual farm level, agriculture in New Zealand can be understood as relatively flexible and adaptive, at the sector level it is far more risk averse in comparison to other New Zealand sectors. “Uncertainty and risk are quintessential features in agriculture”, it is a sector with hugely unpredictable inputs – with weather/climate as the most problematic – as well as operating in a highly competitive international market, especially considering the levels of protectionism within many national export markets.²⁹⁶ Research has found that in New Zealand, “sheep and beef, dairy, deer, grazing, and forestry farmers report statistically lower willingness to take risks than farmers that grow vegetables, flowers, kiwifruits, and grapes.”²⁹⁷ The same study concluded that “sheep and beef and dairy farmers are less willing to experiment.”²⁹⁸ MBIE concluded that “New Zealand’s overly cautious primary industries are hampered by being too slow to adapt and a lack of research, which is sometimes blocked by vested interests.”²⁹⁹ These vested interests are often the sector bodies themselves, which suggests that while individual farmers run the gamut from risk takers to risk avoiders, the wider sector could be considered more risk averse as a whole than other sectors in New Zealand.

Fonterra provides a good example of risk aversion. In New Zealand, far away from the largest markets, dairy – particularly fresh products – has long been a risky industry.³⁰⁰ Fonterra was formed as a way of minimising that risk. Both the co-operative structure and the focus on trading milk powder were designed primarily to reduce the risks of dairy farming.³⁰¹ In the years since it was formed, Fonterra has been criticised as being too risk averse, rather than capitalising on adding value to a raw product that has high potential, the majority of the milk is turned into a commodity that is traded with powder made from far lower quality raw inputs.³⁰² As one dairy farmer working outside the Fonterra scheme notes: “Fonterra is owned by 10,000 risk-averse dairy farmers. The last thing they want is “wild”, “new” and “amazing”. They’re trying to preserve their land, their wealth, their way of doing things and their way of life.”³⁰³ This is somewhat backed up by Fonterra’s General Manager of Europe, who explains that “All of shareholders are New Zealand farmers with an operational interest in our company. This makes our corporate strategy long-term focused and relatively risk-averse.”³⁰⁴ While the risk aversion of the largest operator in one of the largest sectors appears problematic for the uptake of Tauutuutu, as with individual farmer differences, while acting as a collective Fonterra shareholders are risk averse, it seems likely that

there are a number of more adventurous individual farmers amongst the collective and the adoption of Tauutuutu methods would not run contrary to supplying Fonterra.

New Zealand has itself been categorised as a relatively risk averse country. In an MBIE study on current land-based farming systems research and future challenges, a number of interviewees “identified New Zealand’s risk averse nature.”³⁰⁵ The origin of this aversion is indicated as being both a corollary of the relatively conservative cultural identity of New Zealand and the financial impacts of the neoliberalism in the 1980s and 1990s.³⁰⁶ New Zealand businesses and the public have been identified as cautious in terms of their investment strategies and ambitions.³⁰⁷

Alignment with Tauutuutu - Farmers prioritise fairness concerns over productive efficiency concerns

Experiments have shown that individuals seek to maximise aggregate social welfare in an exchange, even if it requires individual sacrifices.³⁰⁸ Oxoby demonstrates that surplus maximisation also affects willingness to cooperate with a voluntary contribution game.³⁰⁹ If people are given the ability to influence others' choices to ensure overall benefits, they tend to contribute voluntarily rather than free-ride. It is common for people to allocate benefits based on reciprocity considerations when there is a difference in effort involved and distribute according to need when abilities are different.³¹⁰ Experimental games tend to demonstrate that Individual A will overcompensate Individual B in an exchange when they believe that Individual B is starting from a less affluent position based on contextual circumstances outside of B’s control. However, suppose B’s less affluent position is deemed by Individual A to result from a lack of effort or based on circumstances within their control. In that case, this overcompensation is less likely to occur. Whitehead investigated New Zealand farmer’s preferences for distributing benefits and burdens relating to environmental mitigation.³¹¹ The research used a social choice experiment to understand the extent to which farmer’s prioritised their own benefits over other farmers within their industry.

The results suggest that farmers often prioritise fairness concerns over productive efficiency concerns. The majority of respondents traded off some industry-level productivity to provide what they saw to be a fairer distribution of environmental mitigation burdens between other farmers. The provision of contextual information on one of the farmers’ higher financial needs resulted in a significant number of respondents changing their preferred allocation of preferences in a way that supported the struggling farmer. In favouring the struggling farmer, the respondents demonstrated that they considered it fairer to maximise others' welfare at their personal cost when distributing benefits and burdens.

Additionally, the research demonstrated that respondents reacted strongly to a farmer who was described as putting little effort into improving his environmental performance. In this case, the respondents considered it fair to place larger burdens on the struggling farmer. There is an ongoing debate between consequentialist theories of fairness, such as utilitarianism, that judge the rightness of an act based on its consequences, and deontological theories of fairness, like John Rawls' difference principle, which emphasises adhering to ethical obligations and duties. New Zealand farmers appear to subscribe more closely to deontological theories of fairness under which Tauutuutu sits.

The most significant finding of this work for Tauutuutu driven exchange is the finding that farmers do not seek to maximise their welfare. In multiple situations, they prefer unequal distributions that favour other farmers over themselves. This finding lends support to applying a Tauutuutu approach that, in the short term, can result in an unequal distribution that favours one party over another. Tauutuutu, which seeks to enhance an exchange partner's mana, is supported by New Zealand farmers at a fundamental ethical level and aligns with their values.

Reciprocity in business exchange: evidence from international examples.

Tauutuutu stimulates the development of multiple beneficial outcomes within a business context. These outcomes go far beyond business as usual and encapsulate a broad range of **intergenerational wellbeing contributions.** Investigating the opportunities Tauutuutu presents for business, innovation, value chain development, and trade relationships require isolating some of the key beneficial outcomes of Tauutuutu driven exchange. To be clear, in this section, the primary discussion is based around the concept of reciprocity from international literature. Often Tauutuutu is translated into English as reciprocity, however the concept of reciprocity does not encapsulate the escalating nature of Tauutuutu, the mauri and mana enhancing nature of the relationship, or non-human elements. Nonetheless research concerning reciprocity is still a useful proxy given that it is focussed on the development of relationships through social investments.

There are multiple strands of literature that address the role of reciprocity in business practices, from the negative impact of cronyism to the beneficial implications of trust and commitment building. Reciprocity is often studied in the literature as a mediating factor in pursuing organisational success alongside other factors such as trust and commitment. Reciprocity is a universal characteristic of human behaviour and is driven by norms of exchange in which individuals feel obligated to return favours.³¹² By reciprocating a good deed, parties can increase their chances of receiving future benefits.

Reciprocity is often discussed in the business literature as a mechanism that controls the perceived risk that exchange partners bear and mediates undesirable behaviours.³¹³ Without sufficient unity levels facilitated by reciprocal exchange, there is a high chance of risk exchange partners may attempt to exploit the other party for their benefit.³¹⁴ Reciprocity has also been described as channelling egoistic impulses toward the maintenance of social systems.³¹⁵

Reciprocity may necessitate immediate benefits; however, it can also involve expectations of future returns if immediate returns are not equal. Research has shown that reciprocity leads to commitment.³¹⁶ **Commitment is achieved when people feel like they are being treated well, which generates self-reinforcing feedback supporting beliefs that the relationship will lead to positive future outcomes. Inter-personal commitments that derive from reciprocity are**

the foundation of inter-organisational commitments.³¹⁷ Multiple studies have shown that these interpersonal commitments mediate the relationship between reciprocity and trust and inter-organisational commitment.³¹⁸ A commitment to relationship building is essential to ensuring the long term survival of a cooperative arrangement; however, satisfaction of short-term immediate transaction outcomes is necessary to demonstrate the commitment to this relationship.³¹⁹ If partners to the exchange fail to see value for themselves, either in the short or the long term, enthusiasm to maintain a relationship will diminish. Studies have shown that when partners consider their relationship to be sound, there are more likely to take larger risks.³²⁰ In markets that are characterised by uncertainty and risk, having a commitment to long-term relationship building is highly valuable.³²¹

Two forms of exchange characterise most organisations, economic and social.³²² Pesämaa, Pieper et al. described a model whereby in the short term, organisations seek to create “balanced reciprocity” through economic exchange, which in the long term generates trust, which facilitates cultural exchange.³²³ Jussila, Goel et al. stress that **social exchange is crucial for an organisation to remain successful over time.**³²⁴ Economic exchange is more explicit and formalised, involving a contractual relationship, payment for work and facilitated by reciprocity that ensures a mutually contingent exchange of benefits between parties, typically short-term in nature.³²⁵ The exchange of benefits is a necessary condition for future exchanges.³²⁶ **The principle of reciprocity ensures that each party to the exchange receives benefits that are proportional to the contributions made by the other partner.**³²⁷ Without reciprocity, exchange partners often exploit the other parties by disproportionately benefiting from the cooperative.³²⁸ Reciprocal exchange and trust are the two primary conditions required for long term exchanges to occur.

The reciprocity effect is typically described in business literature as being a quid pro quo relationship. However, a small number of studies describe a self-enforcing power of reciprocity that regulates economic agents' behaviour, whereby a party that acts to help or hurt the other ends up helping or hurting itself.³²⁹ This self-enforcing power suggests that moving beyond a quid pro quo practice of reciprocity that seeks to enhance the other parties benefits from the exchange has the potential to benefit the more generous party. Identifying a self-enforcing dynamic supports a Tauutuutu approach that seeks to raise the other partner's mana beyond a quid pro quo arrangement.

Tangential, but still crucial in the business literature, is the social exchange theory stream of research. Social exchange theory is based on the norm of reciprocity and specifies that if one party fulfils status duties to another, the other is obligated to respond in kind.³³⁰ Gouldner suggested that the norm of reciprocity, while universal, functions distinctly in different cultures.³³¹ Reciprocity is essential for relationship building; however, business exchanges do not require or need to lead to close personal relationships in individualist cultures. In collectivist cultures, businesses exchanges typically occur between people known to each other, and social networks blend economic relationships with personal relationships.³³² For example, in China the concept of Guanxi³³³ serves as a prerequisite to conducting business activities.³³⁴ Villena, Revilla et al. [5], in studying why managers bend company rules interviewed an executive who stated that:

“Realistically, if someone helps you in important ways, say, getting a stalled project off the ground or in gaining access to the right individuals, it is often an unspoken rule that down the road you may have to reciprocate. I am not talking anything illegal here, just the expectation that you owe this person a debt that could include being flexible when they have a need”.

In collectivist cultures, reciprocity often straddles a boundary with positive connotations of relationship building on one side and negative accusations of cronyism on the other.

While sometimes merely desirable in individualistic cultures, relationships are essential in collectivist cultures. Often these business relationships are based on kinship or other ascriptive ties. When business partners feel obliged at a deep level to each other, they can feel duty-bound to allocate rewards more generously to in-group members; or risk group sanctions.³³⁵ Reciprocity is, therefore, crucial to building relationships and establishing long-term connections in trade but requires a commitment to ensure that both parties stand to benefit.

The international opportunities of up-taking Tauutuutu as a means of building premium value chains and trade relationships

Much of the power of Tauutuutu results from synergistic interactions between different components of wellbeing created through a drive to meet social obligations and raise the mana of exchange partners. The inter-connections between, for example, health, the environment, income, employment etc., are critical. However, to demonstrate the advantages of Tauutuutu to the business world, it is necessary to disaggregate the beneficial outcomes of Tauutuutu into sub-components and study how enhancing these subcomponents through business exchanges can drive innovation. This disaggregation is required for two primary reasons. First, **to generate support for Tauutuutu from the business world the benefits of Tauutuutu need to be clearly articulated, preferable in quantitative terms.** While the intergenerational

wellbeing benefits of Tauutuutu are clear, this alone is insufficient to generate widespread business support. By isolating and analysing the beneficial impacts of Tauutuutu, it becomes easier to describe the benefits to business in an understood format.

Second, Tauutuutu derives from a Māori worldview and is deeply embedded in whakapapa and Māori cultural practices. It is unlikely that a business that is not embedded in the same world would or could adopt its practices. By isolating specific outcomes of Tauutuutu driven exchange and demonstrating the benefits of those outcomes, it is possible to lessen the barriers to adoption by creating an incremental pathway to adoption. In this way, businesses can recognise the benefits of Tauutuutu and adopt principles of Tauutuutu that create those benefits. Over time, this could lead to a greater understanding of Tauutuutu and further entrenchment of the business practices concept.

With these two justifications for compartmentalising the beneficial outcomes of Tauutuutu in mind, we look to **existing understandings of inter-generational wellbeing factors** and their relationship to the business world as hooks to demonstrate the benefits of Tauutuutu driven exchange for business. To do this, we borrow from frameworks familiar to trade, **including sustainability, wellbeing, social impact, certification, and distributive/social justice**, to demonstrate the opportunities.

Tauutuutu as a Driver of Business Model Innovation

Taking a narrow view of the benefits of Tauutuutu to a single business, we can isolate several significant benefits of Tauutuutu driven exchange (Table *).

Table *. Quantifiable benefits of Tauutuutu exchange.

Benefits	Mechanism
Production Efficiency & Financial Management	<i>Reducing resource inputs, reducing or repurposing waste outputs</i>
Market Access	<i>Ability to enter markets that require certification of products</i>
Employee Wellbeing & Retention	<i>Attract high-quality employees, increase job satisfaction, increase productivity, lower retention costs</i>

Innovation & Strategic Direction

Improved organisational culture, stimulating innovation, improved quality, new product/market opportunities

Reputation & Sustainability Credentials

Impact on customer purchase intentions, faster regulatory approvals, strengthened licence to farm, investment appeal.

Businesses are in reciprocal relationships with multiple groups in society and at various scales. However, these relationships and the reciprocal benefits that are derived from them are often not appreciated. The primary groups that influence business practices are described in Figure*. Interactions with these groups can occur across multiple scales, as represented by external segmentation.

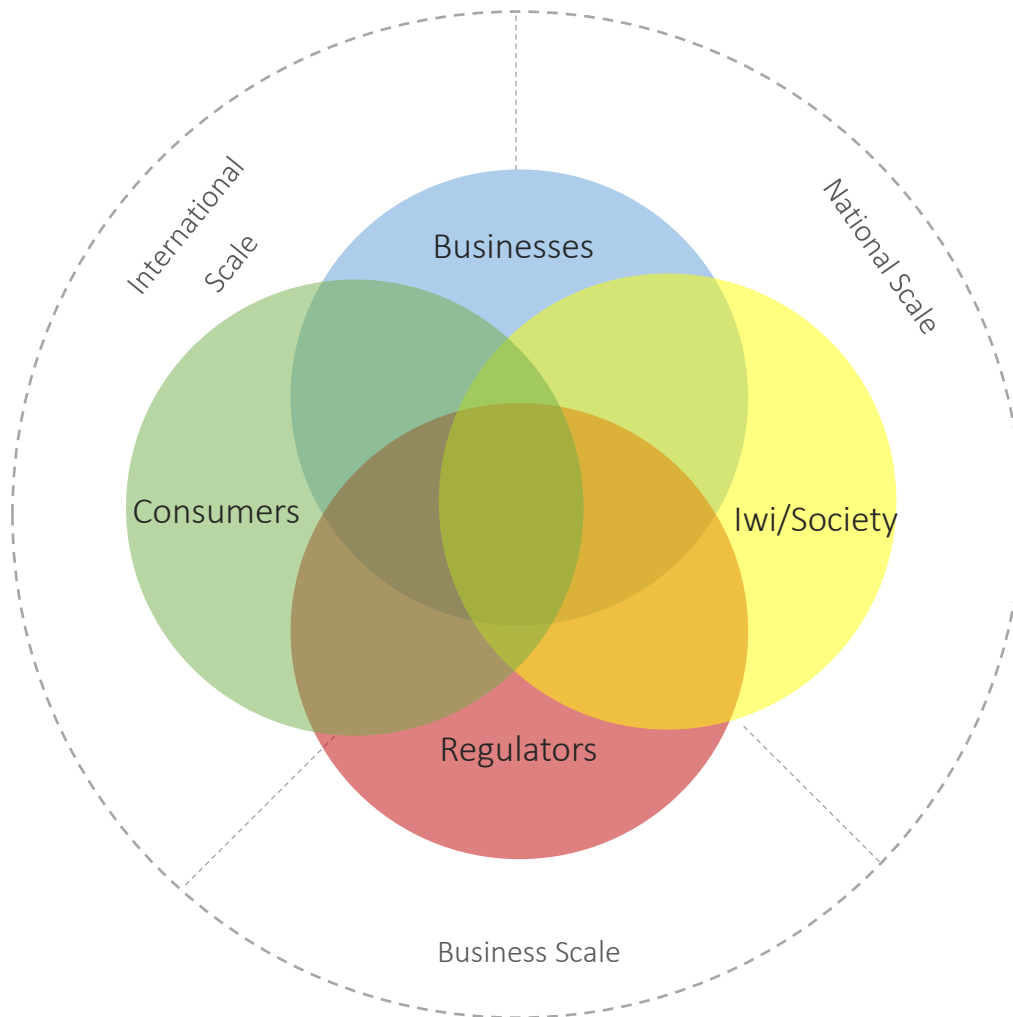


Figure *. Primary sectors of influence on business practices

Each of these groups has different priorities and presents additional opportunities to derive mutually beneficial outcomes. The potential for Tauutuutu driven exchange to generate value is directly proportional to the ability to meet different groups' interests. This value creation method is described by stakeholder theory which posits that businesses affect and are affected by multiple stakeholder groups.³³⁶ These interactions have financial and other implications for the business. However, Tauutuutu goes far beyond human-to-human interactions and incorporates reciprocal interactions with the environment, whakapapa, spirituality, and other realms.

With this broad view of responsibilities to both the tangible and intangible world, we can search for elements of Tauutuutu reflected in business practices at an international and domestic scale. The next sections begin with insights into high-level principles and requirements driving the adoption of Tauutuutu elements in business internationally while gradually working towards practical examples of Tauutuutu domestically.

International Trade - CBDR

At its core, reciprocity is concerned with responsibility and fairness. Fairness is primarily about creating a balance between people or between people and other concerns like the environment or future generations. **Fairness is at the centre of international frameworks that govern how countries interact politically and through trade.** For an international agreement to be effective, it must be widely perceived as fair.³³⁷ **All international agreements are underpinned by a concept known as 'common but differentiated responsibility and respective capabilities (CBDR & RC), which appears in numerous agreements.** One hundred ninety-five nation-states have accepted CBDR & RC within United Nations agreements [28]. For example, the Rio Declaration states:

In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command (UN, 1992 Principle 7).

At the same time as global issues require global co-operation, it has been recognised that the differences in country's capabilities, technology, historic responsibility, and needs (amongst other factors) mean that not all countries have an equal opportunity to address global issues, and therefore, their responsibilities to act should be 'differentiated'. Despite the widespread

acknowledgement of the importance of CBDR & RC, what the concept means to each country can differ vastly.

CBDR & RC is grounded in the distributive justice principles of responsibility and capability. Responsibility is framed in terms of a party being responsible for the adverse effects they produce and the mitigation of those effects. Capability can be understood as a party's socio-economic and technological status, which would allow them to address problems. Another way of understanding capability is needs, in that a party with low capability has higher needs, and a party with high capability has lower needs. CBDR & RC recognises that every party has a different level of responsibility and that this level of responsibility is a function of past actions and present circumstances [29].

CBDR & RC provides a clear moral justification for unequal contributions or outcomes within an exchange. Tauutuutu emphasises the need to raise the exchange partners mana; this often requires an unequal exchange where one party appears to give more than they receive. Classical and neo-classical economic theory often does not provide support for such an unequal exchange. However, the widespread acceptance of an international moral framework for unequal trade relationships between nation-states demonstrates that this key principle of Tauutuutu is very well supported.

International Development - SDG's

SDGs

The United Nations Sustainable Development Goals³³⁸ (SDGs) are increasingly seen by business as a premier standard to guide their non-financial initiatives. All United Nations Member States adopted the 2030 Agenda for Sustainable Development in 2015, which replace the Millennium Development Goals. The SDG's assign an extensive array of non-financial responsibilities to states that can only be met through widespread adoption by businesses.

At its core are the 17 SDGs (Figure *), which are an urgent call for action by all countries in a global partnership. **They emphasise the need to spur economic growth while addressing pressing social and environmental issues.**



Figure 1. United Nation’s Sustainable Development Goals (SDGs)

The SDGs play a growing and significant role in setting national and international policy and standards across a range of crucial areas for New Zealand’s businesses, including trade, climate, and freshwater management. New Zealand’s industries must align their operations with the SDGs to maintain competitive advantage, improve premium market access, and sustain social license to operate. This is fundamental to New Zealand’s environment and future economic growth. **The SDGs formalise key aspects of Tauutuutu, for example, responsibility towards the environment, a drive to improve social wellbeing or the development and entrenchment of indigenous cultural practices.**

New Zealand has signed up to the SDGs, signalling its commitment to contribute to the goals’ realisation.³³⁹ *The 2030 Agenda for Sustainable Development* calls for “an intensive global engagement in support of implementing all the goals and targets, bringing together Governments, civil society, the private sector, the United Nations system and other actors and mobilising all available resources.”

Within two years of the SDGs being launched in 2015, 40 percent of top companies acknowledged the SDGs in their corporate reporting.³⁴⁰ An analysis of company sustainability reports in 2019 found that 72 percent mentioned the SDGs.³⁴¹

It is reasonable to expect this trend to keep its momentum due to the focus on SDGs by many sustainable reporting initiatives and networks. The Australian Centre for Corporate Social Responsibility (ACCSR)³⁴² found over 43 per cent of respondents in New Zealand and Australia reported a behaviour change in their organisation due to mapping the SDGs to their reporting or strategy. New Zealand businesses have lagged behind many other developed nations in addressing the SDGs. This is partly due to the lack of broad frameworks or systems that New Zealand businesses can use to achieve the SDGs’ broad goals. Many New Zealand non-financial development frameworks are narrowly focused on practical aspects of the respective industry’s

operational issues. As a result, they can often only report against one or two SDGs, despite most SDGs having relevance to most businesses. The broad, all-encompassing vision of Tauutuutu makes it well suited to developing a more extensive view of the SDGs' business responsibilities.

Public Interest in Social Issues

Internet search trends provide a powerful indicator of social interest in different topics. We analysed trends in searches made using Google closely related to the primary challenges addressed by the SDGs. Figure * compares New Zealand and Worldwide trends in 14 searches over five years.

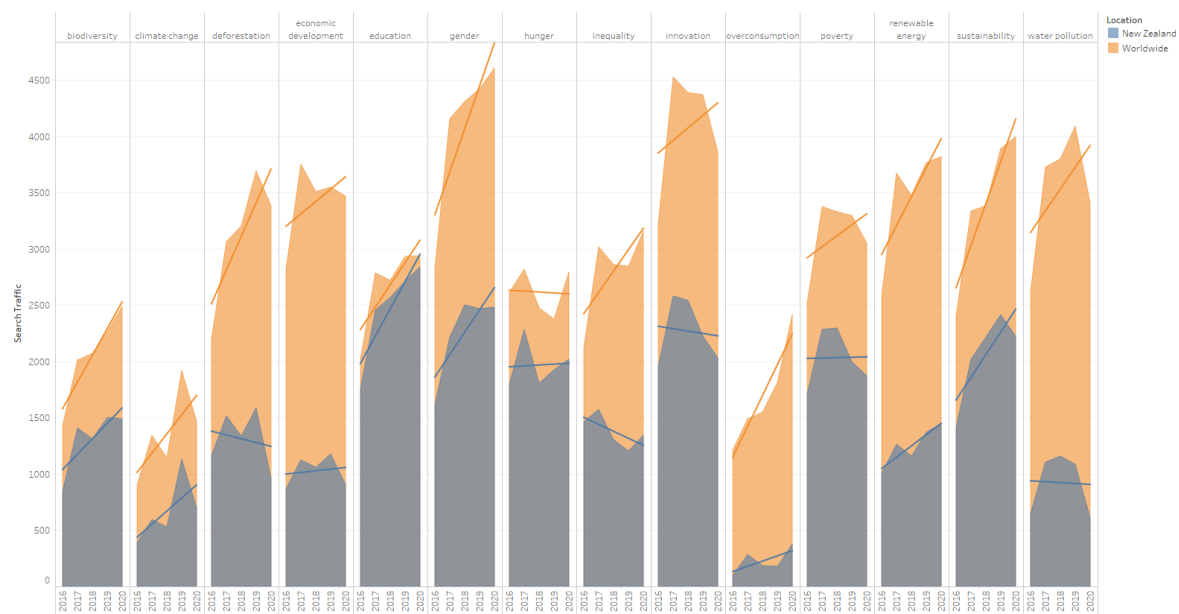


Figure *. Five-year internet search trends: comparison of New Zealand to international searches.

The charts measure search trends on a normalised scale. That is, search traffic at any time is reported in comparison to the highest ever search traffic for that term over the five-year time frame. The highest search traffic is recorded as 100, and all other data points are recorded between 0 and 100. Data points are registered weekly and aggregated annually.

Figure * provides some valuable insights that support Tauutuutu. First, it shows that interest in these significant social issues is increasing in almost all cases, suggesting these issues will be of growing importance to business. Second, in most cases, international interest is increasing more rapidly than New Zealand interest, suggesting New Zealand may be lagging global sentiments on some issues. Third, interest in New Zealand is decreasing on a few critical matters increasing in global interest. These include deforestation, inequality, innovation, and water pollution. This

finding raises a warning that common sentiments around the importance of specific topics in New Zealand may not align with global trends. The results from this brief analysis show that the social and environmental outcomes Tauutuutu drives are generally growing in the public's interest. It also suggests that some issues of concern to a Tauutuutu approach, such as overconsumption, inequality, poverty, and innovation, are of sharply growing interest internationally but not domestically. Adopting Tauutuutu could provide a critical intervention to ensure New Zealand does not lag international trends for enhancing social good.

Market Access Requirements

Multiple regional initiatives govern market access throughout the world. For example, the European Green Deal is a current priority for the European Commission over the next four years. The Green Deal seeks to boost the efficient use of resources by moving to a clean, circular economy and restore biodiversity and cut pollution. A series of targets have been set to achieve these outcomes. All imported products will be considered under the Green Deal's legally binding targets; therefore, all New Zealand products entering Europe will be considered by their ability to progress towards or away from the targets. **Unlike in New Zealand, the international realm has been on a pathway of continuous integration and consolidation of environmental requirements.** While in New Zealand, each industry or business typically creates and uses its own environmental and social standards, internationally, a small number of highly aligned standards have risen to dominance.

Without a broad overarching framework for providing environmental and social good through business activities, New Zealand businesses will increasingly be led by international frameworks. This reactionary approach to non-financial performance reduces the potential for innovation, as New Zealand enterprises focus on meeting minimum international requirements. **Tauutuutu provides a guiding structure that would lift aspirations beyond meeting minimum standards if adopted by businesses. In doing so, there is the potential to exceed international standards, develop broad value-based leadership, and innovate better business practices.**

New Zealand Regulators

New Zealand governments have favoured collaborative and voluntarist approaches to promoting social and environmental good rather than implementing legislative requirements at a national level.³⁴³ There has, however, been some shift recently towards more

regulatory management. This can be seen in, for example, National Policy Statements on biodiversity and freshwater, He Waka Eke Noa and associated climate change interventions, and on-farm risk management through Farm Environment Plans. MPI's strategic intentions for 2018 - 2023³⁴⁴ provide an insight into where the government wants to see progress in the primary sectors. The critical issues of interest align closely to outputs created through Tauutuutu exchange:

- **Sustainability of natural resources** - Shift to more efficient and environmentally sustainable agricultural practices to enhance the primary sector's social licence to operate and earn better returns through trade and improve broader social and environmental wellbeing.
- **Climate change** - Primary sector activities contribute to greenhouse gas emissions. The increase in greenhouse gas emissions is a significant contributor to climate change. Climate change is impacting water and food production systems, land productivity, biodiversity, and the marine environment.
- **Consumer preferences and behaviour** - Global food consumption is changing, driven by demographic, social and economic trends. Knowing which consumers will have future purchasing power, where they are, and what they want will be vital to the way we market our exports.
- **Public trust and participation** - Globally, evidence points towards declining public trust in government, corporations, and the primary sector. The public is increasingly turning to social connections and social media for guidance and advice.

There is a growing recognition by MPI of the interconnections between environmental concerns and social impacts. Declining public trust in the primary industries seems to be a contributing factor to expanding regulatory interventions. Tauutuutu recognises the highly interconnected relationship between people and the environment. If agricultural systems were viewed through Tauutuutu, the social and environmental impacts would be necessary factors to consider in balancing any exchange. A Tauutuutu approach would address all MPI's strategic intentions within a single overarching approach.

Innovation and Application of Tauutuutu to New Zealand Enterprises

Social Procurement

One of the closest manifestations to Tauutuutu exchange currently being used by some businesses is social procurement. Procurement is the process of acquiring goods and services from an external source, typically in a business to business or government to business transaction.

In 2017 there was \$561b³⁴⁵ business to business expenditure in Aotearoa. Social procurement differs from procurement in that it seeks to promote social benefits and create social value through purchasing goods and services. **Social procurement aims to address complex social issues, including unemployment, discrimination, and poverty, through existing purchase contracts.**

The typical mechanism to promote social procurement is the inclusion of a social procurement clause or weighting criteria into contracts to ensure that the purchase of goods or services has an equitable impact. Through this mechanism, contract bids with beneficial social impacts are given greater weight. Multiple social outcomes can also be achieved through social procurement, for example:

- Reducing Māori unemployment rates.
- Getting young Māori into high-value career pathways.
- Supporting whanau communities.
- Developing Māori value chains by increasing opportunities for supporting businesses.
- Working towards correcting structural inequalities for Māori.
- Providing opportunities to upskill staff within Māori businesses.
- Reducing social support needs across the region.
- Providing Māori with workplaces more conducive to Māori values.
- Building the Māori economy.
- Providing a diversity of worldviews has been shown to boost the profitability of any business³⁴⁶.
- Allowing opportunities for mutual learning and growth.
- Potential to improve public policy and services delivery, often generating improved innovative dynamics and benefits from the associated spillovers.
- Advancing diverse culture.
- Alignment of moral, social, and environmental values between businesses.

Economic policy conditions deeply influence procurement systems. Western governments adopted neo-liberal economic policies from the 1980s in an attempt to achieve better governance. At the core of these policies is a market determination of efficiency and competition, often with little or no room for those trapped in a cycle of poverty to engage. The result of neoliberal policy

agendas has been a deepening and entrenchment of economic disparity. These policies have negatively impacted Māori to a greater extent than most other groups in Aotearoa.

The public sector spends around \$42 billion³⁴⁷ each year through government procurement of goods and services from third parties. **The updated New Zealand Government Procurement (NZGP) rules³⁴⁸ came into force in October 2019 and emphasised achieving broader economic, environmental, and social outcomes (Broader Outcomes) for New Zealand through the government’s procurement of goods and services from third parties. The concept of ‘Broader Outcomes’ shows considerable overlap with Tauutuutu in that it is concerned with meeting social obligations and enhancing the mana of businesses involved in an exchange.** Guidance is provided in the rules for ways in which government can promote social value through procurement; however, the guidance is somewhat vague and is couched in non-committal terminology such as “agencies should consider” or “have regard to”. Recent cabinet papers³⁴⁹³⁵⁰ indicate that the government enhancements to social procurement obligations are being considered, and future strengthening of obligations is likely. Since the rules came out in 2019, only around one-third of government agencies incorporate broader social outcomes into their procurement.

Australia offers an interesting case study for creating social procurement opportunities in indigenous communities. The Australian Indigenous Procurement Policy (IPP) set targets for 2019-20, mandating 3% of the total number of government contracts to be awarded to indigenous businesses, along with 1% of those contracts’ total value. Targets have been exceeded, and 5% of the total number of contracts and 1% of the contracts’ total value have been awarded to indigenous business adding AUD 1.5B to the indigenous economy. As discussed in the previous section, the history of the New Zealand government’s approach to social and environmental good has been primarily non-regulatory. It is unlikely that the New Zealand government will soon mandate any regulatory requirements for socially beneficial exchange. However, Tauutuutu can provide a structure for social procurement that could be adopted by New Zealand businesses to ensure they are not left behind in comparison to international businesses.

FOMA Case Study

The Federation of Māori Authorities (FOMA) is already pioneering key components of Tauutuutu in business exchange. FOMA’s mission is: “To create opportunities for its members to prosper and grow and we strive to achieve this through collaboration, leadership, knowledge

and innovation”. A joint report by FOMA and BERL, Education, training, and extension services for Māori landowners, 2019³⁵¹, provides a valuable case study for considering the conditions that need to be in place to incorporate Tauutuutu principles in business. The case study run by Tairāwhiti Land Development Trust (TLDT) from 2006 to 2009 was focused on improving the performance of Māori land blocks by raising the on-farm capability and confidence of the teams involved to farm more profitably.

The primary obstacle to profitability was the management capability for these blocks and the industry’s training. The programme managed to achieve a lift in performance of 26 percent and was subsequently expanded to other regions. The programme revolved around utilising established networks of Māori landowners to promote and provide access to the programme, recognising that traditional farmer training was not suitable for Māori land blocks. The programme’s success was driven by building relationships and establishing networks within regions so that farmers could learn from each other, creating a competitive learning environment that helped accelerate performance improvement. Tauutuutu was core to the success of the programme.

Additionally, it was found that a tailored performance plan with implementation support is required to accelerate the progress of Māori land blocks to make critical changes in their practice to improve performance. The key success factors from the programme can be distilled down to:

- Building relationships and networks.
- Making these networks Māori specific.
- Creating a competitive learning environment to drive performance.
- Providing support at a strategic level for decision-makers.
- Building confidence.
- Creating effective support systems in place to ensure workforce skills and capability for rangatahi.
- Building strong connections between governance and management.

The support structures and processes required to build effective land management networks provide a good illustration of fundamental requirements for Tauutuutu exchange. Tauutuutu relationships build the capability of all parties involved. Support is also required to build capability and ensure that new skills and opportunities are being developed through the exchange.

CONCLUSIONS

Within New Zealand, our patterns of land use largely reflect the customs, beliefs, and practices of the dominant Anglo settler culture – typically representing, albeit with some minor adaptations, the land use patterns of the United Kingdom. Over the last 80 years these land use patterns have evolved with the scale of farms growing, the intensity of production increasing, and the diversity of land use declining. While this process has undoubtedly generated significant economic benefits to New Zealand as a whole, there have also been substantial costs. Firstly, the environmental costs have been massive, particularly for Māori for whom the health of land and water bodies is directly connected to the physical, mental, and spiritual health of the people dependent upon them. Secondly, there has been a substantial negative impact on identity, not only for New Zealanders in general that take pride living in a ‘clean and green’ country, but acutely for Māori for whom the land and water are familial relations that provide an anchor point for identity. Harm to these relations is felt personally. Thirdly, the share of economic benefits over recent decades, that have accrued through intensification and high-input land management approaches have bypassed significant sections of society. This is especially the case for Māori households that today, on average, possess 1/6 of the wealth of the average New Zealand household.³⁵² Much of this wealth disparity can be traced back to land alienation itself and historic colonial policies. In this way Māori disproportionately bear the environmental, social, and economic costs of the industrial development of New Zealand’s land-based sectors.

However, as outlined in this paper, following contact and during early colonisation, Māori were not opposed to increasing productivity through intensification and other methods. It is described in detail how Māori rapidly sought-out and brought European technologies into their cultural frame including new crop varieties, animals, growing techniques, implements, processing methods, and systems of transport. These new systems complemented existing systems originating from Polynesia. In addition, Māori expanded their existing systems of distribution to connect with settler and broader international markets. Māori were successful, generating significant wealth relative to the time and distributing this wealth within and across hapū structures. In fact, this wealth and associated economic independence was seen as a threat to New Zealand’s successful settlement by colonial governments.

The ethical principle and practice of Tauutuutu provided the underlying framework for organising this economic activity including production methods, supply chain management, market

development, and processes for capital redistribution through tribal structures. At its core Tauutuutu entails an obligation to make escalating ‘investments’ that enhance the mauri (vitality) and mana (dignity) of individuals, human families, and related non-human families (land, water, and their offspring), with the expectation that such investments will be returned with equal or greater value. In the socioeconomic realm, at its most simple level, Tauutuutu requires the fruits of a particular individual or group’s productive activity to be continually distributed to related individuals and groups. However, this is on the basis that these individuals and groups provide the fruits of their production to at least an equivalent, but preferably greater value. The mana of individuals and groups escalates based on their ability to continually produce greater value. Underpinning the process is a notion of maintaining balance (utu) through see-sawing obligations.

This process was the engine of economic growth and capital accumulation in the 40 years following contact and during early colonisation within and across hapū. Furthermore, the close relationships and social cohesion built through Tauutuutu underpinned the systems of production, processing, and distribution to markets. In the environmental realm Tauutuutu operates in a similar manner. Instead of the ‘investments’ being in people, the investment is placed into the non-human family (land, water bodies, and their offspring) in the form of respect, care, responsible management, and observances. In short, if society takes from the land and water it must give back the equivalent or greater value, with the idea that such investments will result in greater returns in the future. The ‘hoped for’ result is symbiotic mana and mauri enhancing relationships between humans and their environment.

In essence, Tauutuutu is an ethic, a guiding principle, and a familial framework for socioecological relationships built on mutual respect. This may be contrasted to the dominant Western perspective¹ that views the environment as an assemblage of resources and services for human use. When this view is combined with new and powerful production technologies developed within scientific disciplinary silos, extractive processes occur without taking into consideration wider environmental implications. This is evidenced, as mentioned at the beginning of this section, in the widespread environmental problems New Zealand is experiencing from its land-based production sectors. There is an attempt to address these problems through technological fixes combined with cross-disciplinary and systems approaches, however, it is questionable whether this will work given that the primary issue may be the underpinning worldview that views the

¹ The Western tradition contained a rich array of traditions within it, from deep ecology to deeply anthropocentric positions. In this instance the currently dominant technocratic, materialistic, and anthropocentric view is being referred to.

environment through an extractive and compartmentalised lens. Tauutuutu, and its underlying indigenous worldview, provides an alternative approach.

Tauutuutu provides an ethical criteria for scientific inquiry and the selection of technologies that support symbiotic and mauri enhancing human-environmental relations. Furthermore, as a familial framework it places emphasis on positive feedback processes and systemic interconnections between and across socioecological systems. In the realms of land-based production this manifests in land management approaches that attempt to rapidly adopt and utilise innovative technologies for sustainable production. This has been illustrated throughout this report via examples of the new class of Māori land-based enterprise known nationally for their environmental leadership, social responsibility, innovation, and profitability. It is not claimed that these enterprises have fully achieved their aspirations for mana and mauri enhancing relations between their operations and the environment, given they must operate within parameters (e.g., technological, market, supply chain, conformance system, and regulatory) beyond the control of owners. However, the intention, vision, and innovation is present. Further, most entities are very new and still in a learning process, emerging from a range of historic discriminatory constraints that hindered development. Nonetheless, despite limited capital, they represent exemplar firms seeking to collaborate, diversify their land use, and achieve integration between different systems. There is a focus on value rather than volume, pursuing lower intensity production and the establishment of integrated value chains to premium markets. A significant emphasis is placed on sustainability, circular economics, and ecological restoration leading to food-producing systems that greatly exceed regulatory demands.

In addition to guiding the development of exemplar production practices, Tauutuutu ethics are also driving the development of alternative and novel business models. There is a continual impetus amongst business owners and their governing representatives to focus on processes and models to support the redistribution of mana from corporate centres to marae-centred communities. The result is not only strong marae influence on corporate activities, but also, in an economic sense, the continual flow of capital from centralised bodies to the periphery, supporting business development opportunities within owner-communities. Consequently, we are now seeing, particularly with early settlement iwi, the development of flat business network models based on centralised and peripheral nodes that work together to achieve mutually reinforcing economic goals. These models are fundamentally emerging based upon the ethic of Tauutuutu that demands balance and reciprocity. As outlined in the beginning of this section, New Zealand suffers from significant wealth inequality, these models represent a potential mode of development

that may support greater equity in capital distribution. Furthermore, they represent a return, albeit in a contemporary form, to a tribal economy.

The broader extension of Tauutuutu ethics, principles, and modes of operating beyond Māori communities and to the country as a whole could potentially see a significant and positive transformation in the way land is managed, the way our businesses operate, and the way in which the economy performs. However, this would require an extension of a way of thinking and behaving from one cultural group to another. There are a number of potential constraints on this occurring. The first constraint concerns cultural worldview differences, between Māori and Pakeha, that constitute different philosophies of life that lead to clashes in what is considered valuable. Secondly, for many years colonisation was thought of a civilising mission under which knowledge, and technology would flow from Anglo settlers to Māori. It has rarely been considered, or thought possible, that learning, wisdom, and insight could flow the other way. Thirdly, land owners on our production lands are an aging group with a strong tendency toward conservative values that together tend to limit the adoption of new behaviours and ways of thinking. Fourthly, both the public and private sectors have heavily invested in built capital and infrastructure (e.g. irrigation schemes and processing plants) to support intensive and specific forms of land use. Such investments require payback, which inhibits major shifts in land use and production activity. Finally, at an industry scale there is a typically low appetite for changes that entail risk. Despite all of these constraints there are also positives, with New Zealand land managers and food producers demonstrating a capacity to rapidly change and adapt to market shocks, a relatively high level of innovation at a farm scale, a history forming cooperatives to meet collective goals, and a strong tendency to value fairness. It is contended that an extension process using andragogy, or adult learning processes, when combined with the above characteristics of land managers, could facilitate the extension of Tauutuutu ethics, worldview, and behaviours.

In addition to the constraints on adopting Tauutuutu there are also business, national, and international opportunities. Through a scan of international literature on reciprocity it was determined that similar social practices to Tauutuutu play a crucial role in building business and value chains. This includes: the building of trust; increasing commitment; improving market access; raising employee wellbeing and retention; increasing the fair distribution of economic activity benefits within and across value-chains; and enhancing reputation and sustainability credentials with markets and regulators. It is also outlined that utilising a Tauutuutu framework at a national scale could inform the development of social procurement policies, and assist in New Zealand

meeting its international agreements and obligations associated with responsibility, fairness, and development.

Future Research

This white paper sets a stage for future research. It has highlighted the phenomenon of Tauutuutu and how it establishes the grounds for a different approach to land management, supply chain management, market development, business development, and processes for capital redistribution. It is proposed that future research could first measure the national impact of the broad adoption of Tauutuutu across New Zealand's agrifood sectors, and second optimise pathways for extension. More specifically the research would involve two interdependent research aims.

Research Aim One - Comprehensive Modelling – The first step in the modelling would be accessing data from high-performing Māori agrifood operations utilising a Tauutuutu approach. This data would then be extrapolated to determine the impacts of broad adoption of these structures across New Zealand's agrifood industries and sectors. In particular, the modelling would determine the impact on export earnings, economic multipliers, and environmental considerations (such as water). The modelling would answer the key research question: What would the impacts of the broad adoption of Tauutuutu principles across New Zealand's agrifood sectors be?

Research Aim Two – Quantitative Survey - A comprehensive quantitative survey of Māori and non-Māori agrifood sector leadership would be developed. It would determine levels of openness to embedding Tauutuutu, and related core Māori concepts and values, into operations across value-chains. The survey would provide the following:

- A scale that would determine the levels of comfort and familiarity with the concept of Tauutuutu across agribusiness leadership, sectors, and other demographics.
- Measurable cultural differences and areas of confluence between Māori and non-Māori agrifood businesses.
- The key political, cultural, policy, regulatory, and operational barriers and avenues to the extension to Tauutuutu approaches.

The survey would answer the key research question: What are the levels of openness and optimal approaches to support the broad adoption of Tauutuutu principles across New Zealand's agrifood sectors?

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