



## Indigenous food sovereignty: Reclaiming food as sacred medicine in Aotearoa New Zealand and Peru

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Published online: 28 November 2019

**Auheke:** Ko te whenua te herenga o ngā iwi taketake ki o rātou whanaunga o te taiao. Ko te tapu o te whenua me te hiranga o te whenua ki ngā mahi ahuhenua ētahi o ngā āhuatanga e taunaki ana i te kaitiakitanga o te tangata me ōna whanaunga o te taiao. Ko tā mātou rangahau, he whakataurite i nga mātauranga, kōrero tuku iho me ngā kupu whakarite taiao o te iwi Māori me te iwi Quechua. Mā kōnei ka tātari mātou i te hiranga o ngā mahinga kai ki ēnei iwi taketake e rua. Ko te mātauranga taiao o ēnei iwi e rua te aho matua e taunaki ana i ō rāua tikanga whakarauora kai, whakarauora mātauranga taketake me te taiao hoki. Mā tēnei, kua kitea e mātou te hiranga o te kai ki te tino rangatiratanga, te kaitiakitanga o ēnei iwi taketake.

**Abstract:** For Indigenous peoples, land is both an agricultural and sacred space where both human and nonhuman relations work together as stewards. This study pioneers a comparative study of the traditional ecological knowledge systems (TEK) of Māori and Quechua peoples. Drawing from talking circles with Māori and Quechua people, and narrative and metaphors from these traditions, this research shows that TEK is at the heart of Quechua and Māori peoples' food values. Further, we highlight the vital role that TEK plays in framing practices and processes that drive the restoration of Indigenous peoples' food systems, cultural knowledge and environmental health today. This study demonstrates that food can play a fundamental role in asserting collective self-determination, for moving beyond colonial approaches to food, and ultimately for pursuing environmental justice.

**Keywords:** Food sovereignty, traditional ecological knowledge, sustainable food systems, maramataka, Māori, Quechua

### Introduction

The Food and Agriculture Organisation of the United Nations (United Nations Food and Agriculture Organisation or FAO 1996) defines a sustainable food system (SFS) as “a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised” (FAO 2018). From such a definition, the aim of a food system is that it is economically viable (economic sustainability); provides broad-based benefits for all members of society (social sustainability); and does not deplete the natural environment (environmental sustainability). While the SFS concept is a modern term to address unsustainable agriculture, it recognises notions that are familiar to Indigenous peoples (Berkes 2000; Pierotti & Wildcat 2000; Battiste 2002; Kimmerer 2013).

The concept of food sovereignty was first propelled to the international stage in 1996 when La Via Campesina, an international group of peasant and small-scale farmers, took a stand against the prevailing neoliberal model of agriculture

and trade (La Via Campesina 1996; McMichael 2009; Pimbert 2009). The term was redefined in the 2007 Forum for Food Sovereignty in Selingue, Mali and evolved in the 2007 Declaration of Nyéléni as “Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (La Via Campesina 2007).

While the conception of food sovereignty resonates with the aspirations of Indigenous peoples, Indigenous scholars point out that Indigenous food sovereignty transcends the legal and human ‘rights-based’ entrenched in the food sovereignty concept. Food sovereignty for Indigenous peoples emphasises collective and cultural responsibilities that arise out of a network of descent and kinship relationships (Coté 2016; Morrison 2016; Huambachano 2018). In this sense, Indigenous understandings and practices of food systems do not resonate with the dominant mechanised industrial agricultural systems, which make use of pesticides and rely on hybrid or GMO varieties of the world’s major food staples to tackle food challenges (Borras & Franco 2013; La Via Campesina 1996; McMichael 2009;). These

industrial and technical approaches to food systems are being challenged by concerns about the safety and nutritional value of food, and the long-term sustainability of the environment. The latter not only threatens the well-being of Indigenous peoples, who heavily rely on healthy ecosystems for their food sustenance, but ultimately of people everywhere (La Via Campesina 2007; Shiva 2016).

It is within the need to rethink our food systems that this empirical research centres on Quechua and Māori peoples' unique ways of knowing and traditions of stewardship over the environment for the preservation of food systems. Indigenous peoples are inheritors of unique cumulative bodies of knowledge and practices related to the natural environment of a specific geographic area which are bestowed on them by their ancestors, and endowed to them by nature (McGregor 2004; Royal 2009; Watene 2015). Traditional ecological knowledge (TEK) refers to the enduring backdrop body of knowledge of Indigenous peoples, including skills, practices, and innovations (technology), acquired mostly through oral history and experiential learning from one generation to the other over thousands of years (Berkes et al. 2000; McGregor 2004; Pierotti & Wildcat 2000).

Cases in point are the bedrock bodies of knowledge of Quechua and Māori peoples referred to as *mātauranga* (Māori body of knowledge) and *yachay* (Quechua knowledge system). Marsden (1988) described *mātauranga* Māori as "the knowledge, comprehension or understanding of everything visible or invisible that exists across the universe; this includes all Māori knowledge systems or ways of knowing and doing." Marsden's definition above can be understood as describing a unique Māori worldview whereby a person gets to know about and understand some of the different ways of learning about his/her world that can be transferred from one person to another. This aligns with *yachay* that similarly affirms that Quechua people are the inheritors of diverse and unique knowledge centred on the nurturing of biodiversity that encapsulates norms, principles, and values embedded in their ways of knowing (Lajo 2010; Huambachano 2018).

*Yachay* and *mātauranga* play a crucial role in the lore of Māori and Quechua people of Peru's ways of knowing and interacting with ecosystems for their food sustenance and well-being (Walker 1991; Durie 2003; Royal 2009; Watene, 2015; Mead 2016). Yet, Indigenous peoples' TEK and their knowledge contribution to environmental and sustainable food systems remain underexplored by researchers. Filling this gap in the literature, this is the first Māori and Quechua comparative research that outlines Indigenous knowledge contributions in restoring disrupted sustainable food systems.

## Theory and Research Process

This study uses the TEK theory to gain insights of the knowledge systems of Quechua and Māori, and contends that these two Indigenous groups have their own TEKs reflecting unique epistemologies and ontologies within them. I argue that the study of TEK is possible if research is conducted with the approach of working with and for the benefit of Indigenous communities. The study of TEK would also require the implementation of Indigenous methods hence to undertake this research in culturally appropriate ways; I developed the *Khipu Model* (KM) described in Huambachano (2017).

Briefly, the KM is based on an Andean knowledge-keeping system, which is an intricate and colourful knotted-string device

mainly used by the Inca to record both statistical and narrative information (Urton 2003). I adapted the configuration of the Andean *khipu* to use it as a source of knowledge production that privileges Indigenous ways of knowing and being. The model draws on participatory action research methodology, TEK, values, and principles of *kaupapa* Māori, which is a Māori research framework (Smith 1999), and the body of scholarship addressing Indigenous research methods (Pihama et al. 2002; Kovach 2010; Wilson 2008). The KM aims to inform the most culturally sensitive data collection tools emerging from Quechua and Māori ways of acquiring, sharing, and disseminating knowledge.

The study partners cited throughout this paper are Quechua and Māori knowledge holders of traditional foods, Indigenous worldviews/cosmovisions, and knowledge and practices associated with sustainable food systems. I do not claim to speak for the Quechua or Māori people, but instead, I draw on the grounded knowledge generously shared by each of them to explore Indigenous food systems. Also, I draw on the knowledge I have attained from my lived cultural experiences as an Indigenous woman of Peru who has also lived in Aotearoa New Zealand.

## Research location and methods

In 2012, I embarked on preliminary ethnographic field trips in both countries to gauge the research needs of potential study partners and begin building reciprocal relationships four years before the start of this research. In the region of Cusco and nested in the highlands of Peru, the Quechua communities that took part in the research were Choquecancha and Rosaspata. Similarly, representatives of Ngāti Hine and Ngāti Porou, in the North Island of New Zealand, took part of this investigation. Before gathering empirical data, I met with study partners to discuss and refine the research questions, and to translate them to Spanish, English, and Māori when required. Empirical research was carried out in Peru and Aotearoa New Zealand between March 2017 and July 2018. The research was approved by the Human Ethics Review Committee, University of Auckland, and in Peru, where I submitted an undertaking signed by a justice of the peace for my research stay. In this undertaking I explicitly detailed how I would comply with Peruvian customary local laws in my capacity as both an Indigenous researcher of Peru and a New Zealand citizen, using the KM in the research.

Data collection took a period of fifteen months and this study adopted a purposive sampling technique, which took place during the many gatherings with these communities, workshops, talking circles, and from my personal observations when interacting with potential research partners. During the sampling stage, key study partners with in-depth knowledge on cultural values, traditional ecological practices, cosmovisions, and who were highly regarded by community members in both countries were invited to be part of this study. Research participants in these two countries were selected based on their active participatory role in traditional food production systems, elder tribal leaders, and young community leaders of both sexes who have been working closely with elders were considered in the purpose sampling technique. In total, I conducted thirty formal interviews, which took place in a variety of settings, but predominantly at research participants' *chacras* (small plot of land), households, and *marae* (sacred meeting place).

## Peoples of the land: right to collective self-determination

In this study, Pachamama and Papatūānuku represent a sacred space where all human and non-human kin (land, water, animals, plants), flourish within a symbiotic and nurturing environment. Indigenous leader Sonia Quispe from the Rosaspata community stated: “To me, Pachamama is my mother! A mother nurtures love and cares about her children, and so does Pachamama in the form of healthy foods. So how we work and interact with all our relations influences the outcome of our food and food systems. I love my potatoes seeds, and I cry when my potatoes do not grow, and I know it is because of my mother –Pachamama is unwell.”

This narrative alludes to Quechua people ways of viewing the world or cosmovision based on a kinship-centric system wherein all community members humans and non-humans, including Andean deities, or *wacas* (in Quechua language), have duties and responsibilities to respect and nurture one another (Apffel-Marglin 2002; Lajo 2012; Huambachano 2018). In a similar vein Kiri Karr from Ngāti Porou explains: “We are all offspring of Papatūānuku. Papatūānuku for me: well... it’s everything. And whenua that’s our word for land also means placenta. Yes, I am referring to the placenta that nourishes a baby in the womb. When I was born, my placenta was buried in my mountain and next to my grandmother, so that is my *whakapapa*. It is also our symbolic bond with Papatūānuku.”

The vignette above refers to *whenua*, which is the Māori word for land, and which also means placenta, which is used here to contextualise a Māori worldview of being the offspring of Papatūānuku (land). *Whenua* (placenta) is the lining of the womb during pregnancy, by which the fetus is nourished, and it is expelled with the fetus and the umbilical cord following birth (King 1992; Kawharu 2002; Mead 2016). Study partners across both tribes mentioned that after a Māori woman gives birth, the *whenua* of the baby is buried in a special place, usually at the *whānau*’s *tipuna* (sacred mountain), where no one can walk over it. Within a Māori worldview to be Indigenous is to be born from the land where you live, and continually born and reborn through an intimate relationship with the earth, sea and sky (Hutchings 2015; Watene & Kawharu 2015).

In this study Quechua and Māori Indigenous ways of being in the world and ways of knowing are oriented by their laws of origin and creation stories that give sense to their existence as one of many components in the complexity and diversity of the web of life, not having a superior hierarchical status. In this regard, the capitalist ideology of land, which sees the environment as existing independently from humans and as the principal (if not sole) end of concern undermines Indigenous peoples’ capacity for autonomy and self-determination (Shiva 2006; De Schutter 2009). As Indigenous peoples, we have an obligation to enhance the natural world just as the natural world (as our kin) has an obligation to enhance our lives.

To illustrate, Indigenous rights to self-determination is recognised in Article 3 of the United Nations Declaration on the Rights of Indigenous Peoples (2007, see: [https://www.un.org/development/desa/Indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/Indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf)) and refers to Indigenous peoples’ collective ancestral rights to land, and resources and rights to govern social-political, cultural, and economic institutions within their territories (Valladolid & Apffel-Marglin 2001; UNDESA 2015; Whyte 2016). However, *capitalism* within the agricultural context concentrates the world’s resources, including land, under the control and for

the benefit of a small elite, alongside a suite of laws aimed at confining the rights of Indigenous peoples to have access to land (Pimbert 2006; La Via Campesina 1996). Clearly, there is a lack of respect for Indigenous peoples’ rights to land, knowledge, and customary law and practices.

Since pre-colonial times, Quechua peoples have exercised the right to self-govern ancestral terrains and decide what to produce and consume through a collective ownership system referred to as *ayllu* (community in English, and *comunidad de los Andes* in Spanish; Apffel-Marglin 2002; Lajo 2012). I observed during fieldwork that in the *ayllu* system *apus* (sacred mountains), *mayu* (rivers), and *qochas* (lakes), as well as the history, stories and spirit of a place have roles to play in maintaining the sacred balance of the *ayllu*, and ensure that all members of the *ayllu* have access to sufficient and nutritious food. Thus, through the *ayllu* system, the Quechua people of Peru exercise their collective rights to self-determination to govern their territories according to their cultural, political, and legal traditions. However, Indigenous peoples of Peru have limited state legal recognition, except for native communities being legally recognised in the Peruvian Constitution under the law decree 89 (Furnish 1971).

Comparable to the limited land rights landscape of Peru, in Aotearoa, Māori Indigenous autonomy and sovereignty over their ancestral territories is acknowledged in the *Te Tiriti o Waitangi* (Treaty of Waitangi) an agreement between Māori chiefs and the British Crown signed in 1840 (Orange 1987; Mutu 2018). In the Māori language version signed by chiefs, the Treaty acknowledges Crown governorship of lands, but Māori retain sovereignty.

Leonel Hotene from the Papatūānuku marae stated: “Much of Māori land was lost in the 19th century and against the will of my people. Because of this, many people felt they had lost their *tūrangawaewae*, their sense of foundation, and stability. Land for us represents a place; our history and stability and who we are as *tangata whenua* and Māori of Aotearoa.”

This narrative alludes to the importance of the Māori notion of *tūrangawaewae*, which translated to English means “a place to stand”. In Māori language the word *tūrangā* (standing place) and *waewae* (feet) is translated into English as “the place for the feet to stand”, and concerns the foundation of being Māori, their identity and their place in society (Walker 1991; Durie 2003). Therefore, *tūrangawaewae* represent the bonding link between Māori and the land, the place for the feet to stand proud, because it represents one’s roots, and the sense of belonging to a place and home (Mead 2013).

This study presents findings on how Māori knowledge of traditional food systems has been disrupted by the dispossession of their land. For example, there is an array of Māori traditional food treasures; *kūmara* (sweet potato), *pikopiko* (fern shoots), *kaimoana* (seafood) such as *īnanga* (whitebait), and Māori would perform food rituals to express gratitude for these foods to *Rongomātāne* (god of cultivated food) and *Haumietiketike* (god of uncultivated food) (Tapsell 2002; Mead 2013). Kiri Karr from Ngāti Porou commented: “My koro told me that the (spiritual) element is probably one of the biggest reasons why and how we connect with Papatūānuku because we all come from Papatūānuku. We still practice our customary practices and every time you plant your crops, you go and do a *karakia* to *Rongomātāne* or *Haumietiketike*, to the cultivator of plants, you just don’t plant your *kai*, you first ask permission to plant *kai* and also ask all the gods to look after your *kai*.”

Kiri continued explaining that a *karakia* has its *mauri* (vital essence) and therefore the *mauri* is the life-force of *karakia*

(prayer) that pervades and infuses the mauri of the food crops and brings forward the spiritual connection with Papatūānuku. Wehi and Roa (in press) highlight that since pre-colonial times Māori have had a longstanding relationship with food that is repeatedly regenerated through social gatherings; for example, kūmara is a sacred food crop still harvested and cooked at many Māori gatherings. However, Māori people suffer the worst rates of diabetes and other metabolic disorders of any ethnic group in modern Aotearoa New Zealand (King 1992; Hutchings 2015; Moeke-Pickering et al. 2015;). For Māori, land is part of cultural identity, and therefore central to movements that ground calls for self-determination, such as political protest movements centring on major land confiscations (Jackson 1993; Watene, 2016; Mutu 2018).

### The rise of TEK and Indigenous food sovereignty

In this study, the value of foods for Quechua and Māori people relates to their collective self-determination to restore their cultural knowledge, relationships with all beings, cultivating their own food, and being the stewards of the environment. The meaning of food as medicine for these two Indigenous groups is at the core of their cultural identity because food has cultural knowledge, traditions, spiritual relationships that tie Māori and Quechua to food, and histories of collecting foods passed down from one generation to the other. Therefore, by harvesting, processing, cooking, and sharing traditional foods, they are nourishing both their physical and spiritual wellbeing while honouring collective food relations.

Whyte (2016) reasons that ‘collective food relations’ constitutes Indigenous political, social and legal institutions, that in one-way shape everyday customary practices for preserving the environment and, in another way, are simultaneously regenerated through social food activities. Ngārimu Dell from Ngāti Porou highlights the importance of food rituals such as hākari (ceremonial feast) in conveying teachings about manakitaanga (hospitality) and mana (authority) instilled in kai: “Hākari is also important for us because it has to do with our hospitality with guests. We have a variety of traditional feasts to celebrate the land because it provides us with food. Hākari strengthens our relations with our community and other iwi because ka brings us together. Kai tahi tāttou I te hākari – we will eat the feast together.”

The importance of hākari in Māori culture goes beyond a connection between land and food, and it manifests the hospitality and mana of for example a rangatira (chief), of a marae (meeting place), a whānau (family), hāpu (sub-tribe) or iwi (tribe) with food arranged on the high stage and mutually shared through ceremonial eating (King 1992; Moeke-Pickering et al. 2015; Mead 2016). During hākari the hosts would cook extravagant food in an attempt to provide the biggest feast to assert mana and manakitaanga without any room for the guests to undermine them in the future (Mead 2013; Hutchings 2015; Mead 2016).

Mead (2013) makes reference to famous waiata (songs) from Ngata Awa and Tuhoe ‘Taku rakau’ to explain how these waiata make the connection that without land (as these iwi had land confiscated by Crown) there is nothing to serve guests, and therefore diminishing the mana of for example rangatira, of a marae, a whānau or iwi. Mead (2013) further discusses that the notion of being generous hosts and feeding your manuhiri (guests) is common amongst Indigenous peoples. Thus, it can be argued that the reciprocal and respectful relationships that Quechua and

Māori have with both food and land sustain their customary laws, ethical principles and kinship governing structures.

First Nations scholar Dawn Morrison (Secwempec) explains that revitalising Indigenous foods and TEK through food sovereignty upholds our long-standing sacred responsibilities to nurture healthy, interdependent relationships with the land, plants and animals that provide us with our food (Morrison 2011). This is exactly what Quechua, Māori, Native Americans, First Nations and other Indigenous groups around the world are doing by ‘indigenising’ food sovereignty and moving beyond colonial food systems. For example, in Aotearoa New Zealand there is a wide spread of māra kai (food gardens) such as the successful māra kai led by Leonel Hotene of the Papatūānuku marae, which in conjunction with Māori residents in South Auckland is restoring the many varieties of traditional Māori foods such as the kūmara, and doing it as Leonel says “the Māori way” to emphasise the use of the Indigenous Māori maramataka (lunar) calendar, traditional practices and spiritual rituals when planting kūmara or other Māori traditional crops.

Another example is the Pā to Plate Project led by Professor Merata Kawharu that aims to reconnect Māori with their marae, through enabling descendants to purchase produce from their land. Pā to Plate produce is grown on marae gardens, kōhanga reo (Maori-language preschools) and Māori land trusts initially in the Waitangi river catchment. Marae communities develop the production and share the value of the produce from their whenua, and as a result support regional development (National Science Challenge 2019).

Local to global food sovereignty efforts are taking place to prevent multinational food corporations to gain more control over seed resources and examples are seed saving initiatives in Peru and the United States heralded by grass roots organisations. In Peru, the Slow Food Peru organisation embodies the growing network of small scale Indigenous and non-Indigenous farmers and seed keepers that are working towards to not only provide education to tribal and city dwellers people around biological and cultural heritage of diversity. But also, Slow Food Peru is insisting for a new law to pay attention to traditional seeds and their link to land and traditional knowledge. The aim is for the regulation to foster the work of those who cultivate diversity and should offer opportunities in support of farmers who are guardians of registered varieties (Slow Food Peru 2019).

In North America, the Seed Keepers Network embodies the growing network of Indigenous seed keepers that is coalescing to not only provide education to tribal people around seed planting and saving, but also to push for the ‘rematriation’ of Indigenous seeds from institutions that have collected or inherited them, back to their communities of origin (Indigenous Seed Keepers Network 2019). In 2018, in a personal interview with Seed keeper Rowen White (Mohawk), she explained to me that the term rematriation of seeds reflects the restoration of the feminine seeds back into the communities of origin. The Indigenous concept of rematriation refers to reclaiming of ancestral remains, spirituality, culture, knowledge, and resources, instead of the more patriarchal associated repatriation.

### Conclusion

This study concludes that TEK is place-based and rooted in Indigenous peoples’ worldviews and shared collectively through stories and teachings acquired by both living and

non-living beings (e.g. plants, water, and the moon), which is not clearly understood in modern societies. Cases in point are Quechua and Māori people who possess locally rooted knowledge or TEKs on how to conserve biodiversity and live in harmony with nature that stems from a deep-rooted connection to the land (Papatūānuku or Pachamama), sea, and spiritual beings.

Such an interrelated human-nature and spiritual relationship with Mother Earth reverberates in the traditional food systems of these two Indigenous groups, which include, not only the in-depth understanding and practices of plant species and animals within their territories. But also, how this knowledge is richly embedded in spiritual practices (rituals), traditional agricultural techniques, and innovation systems such as Indigenous agricultural calendars and renewed through seasonal food activities.

Food rehydrates cultural memories; for example, each year the activities associated with foods—such as harvesting ceremonies (e.g. potato and kūmara rituals), dances (e.g. haka) and communal food festivals (e.g. hākari)—renew family, community, cultural, political and social relationships that connect Indigenous peoples with all extended relatives (human and non-humans). Thus, this study suggests that a food system retains a connection to long-evolved cultures and patterns of living in local ecosystems, and food systems reflect a treasure trove of knowledge that contributes to peoples' well-being and health. Therefore, enacting Indigenous food sovereignty is vital for Quechua and Maori because it reaffirms their rights to self-determination and their responsibilities with the natural world and all relations.

This study highlights how around the world, Indigenous communities continue to develop effective solutions rooted in TEK to enact food sovereignty and environmental justice and to move beyond colonial approaches to food that disregards our collective food relations and ancestral rights to land. Indigenous collective rights to land and resources contained therein are upheld by the community's customary law, values, and customs. Therefore, the revitalisation of Indigenous food sovereignty is a critical tool in enacting our collective self-determination efforts for the preservation of land - Mother Earth, biodiversity, and traditional knowledge that is vital for our continuance survival and of future generations.

## Acknowledgements

My most profound gratitude to my study partners Māori and Quechua communities for all your wisdom, love and determination to preserve traditional knowledge and enact Indigenous food sovereignty. Also, I would like to express my appreciation to Māori scholars Dr Krushil Watene (Ngāti Manu, Te Hikutu, Ngāti Whātua o Orākei, Tonga), Dr Aroha Mead (Ngāti Awa, Ngāti Porou), and Dr Priscilla Wehi for her valuable comments on earlier draft versions that enhanced the clarity of this paper.

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Received 31 March 2019; accepted 11 November 2019  
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