Exploring Te Kooti's 1886 Te Umutaoroa prophecy as a climate adaptation framework: Prophetic reflections inspired by the Toi Rito Rangatira programme

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Abstract

This paper is the beginning point of reflecting on and exploring the 1886 Te Umutaoroa prophecy, given by Te Kooti Arikirangi Te Tūruki, as a climate adaptation framework, inspired by the Toi Rito Toi Rangatira - Rangatahi Climate Leadership Programme. Selected by my hapū, Patuheuheu and Ngāti Haka, I joined this programme aimed at rangatahi Māori involved in Deep South Research projects. Despite initial reservations about my age, my kaumātua encouraged my involvement, seeing potential benefits for our hapū. The programme was transformative, enriching my understanding of climate leadership and integrating contemporary perspectives with traditional wisdom. This experience led to a deeper exploration of the Te Umutaoroa prophecy, promising restoration of land, dignity, and sovereignty. The prophecy's eight mauri provide a foundation for a hapū-centred climate adaptation framework. Climate change, driven by industrialisation, threatens ecosystems, and Māori communities, are particularly vulnerable. Integrating mātauranga Māori with scientific methods offers holistic, culturally meaningful solutions. Te Umutaoroa's principles—spirituality, land stewardship, hapū well-being, faith/belief, healing, discovering hidden potential, conflict resolution, and returning to ancestral lands—guide potential adaptation strategies. This paper presents Te Umutaoroa as a framework to strengthen the resilience of Patuheuheu and Ngāti Haka against climate change, advocating for further research and collaboration to refine and implement these strategies, ensuring they align with hapū values.

Keywords: Te Kooti, Waiōhau, Patuheuheu me Ngāti Haka, Climate Change, Climate Adaptation, Resilience

Introduction

In the Māori world, whakapapa is fundamental to identity and positioning; it serves as the genealogical matrix that informs one's cultural lens and guides research methodologies (Rangiwai, 2018h). My whakapapa links me to the iwi of Ngāi Tūhoe, Ngāti Manawa, Ngāti Whare, and Ngāti Porou. Having spent most of my life within the Murupara and Waiōhau communities—where much of my iwi and hapū history unfolded—I carry with me the teachings and experiences passed down by my parents, te reo Māori-speaking grandparents, and great-grandparents (Rangiwai, 2011, 2015).

This whakapapa positions me in direct relation to key figures and events central to Patuheuheu history. I am a direct descendant of Peraniko Tahawai (?-1877), the ariki (paramount chief) of Ngāti Manawa from 1864 until his death in 1877 (Binney, 2009a). Peraniko was renowned for his leadership during the resistance against Te Kooti in the Hauhau uprising. His exhumation and traditional preservation practices, as described in historical accounts, underscore a deep connection to customary Māori practices that form part of my cultural heritage.

Further strengthening my positionality is my connection to Koura, a chief of Ngāti Rongo and Patuheuheu, who played a pivotal role in maintaining the mana of Tūhoe across regions including Te Whaiti, Murupara, Horomanga, and Waiōhau (Mead & Phillis, 1982; Waitangi Tribunal, 2002). Koura was instrumental in the peace negotiations between Tūhoe and Ngāti Awa in the 1830s, marking the end of 200 years of inter-tribal conflict (Binney, 2009a). These negotiations, symbolised by the 'tatau pounamu' (enduring peace agreement), emphasise the interconnectedness of whakapapa, land, and political history in shaping the Patuheuheu identity. My whānau continues to uphold Koura's legacy, using it as a benchmark for strength and leadership.

My positionality is also shaped by the historical trauma of the Waiōhau Fraud and the loss of Te Houhi. The fraudulent sale of land by Harry Burt led to the displacement of Patuheuheu from their ancestral lands in the late 19th century. This colonial injustice is not merely a historical footnote but remains a crucial part of my whānau narrative. In response to this loss, Te Kooti gifted Patuheuheu the prophecy of Te Umutaoroa—the slow-cooking earth oven—that contains eight umu stones, each imbued with mauri and holding the promise of positive transformation for future generations. This prophecy serves as both a spiritual and practical framework for addressing contemporary challenges, including climate adaptation.

Another significant figure in my whakapapa is Mēhaka Tokopounamu (c.1835–1920), a key representative of Patuheuheu during the Te Urewera land issues of the 1890s. Mēhaka's involvement in tribal politics, as recorded in historical archives and parliamentary proceedings, reflects the active role that Patuheuheu played in confronting colonial land policies. His participation, alongside other Tūhoe leaders,

highlights the complex intersections of Māori identity, land, and sovereignty. His legacy, along with the efforts of other Patuheuheu leaders like Wi Pātene Tarahanga, forms the foundation of my understanding of Patuheuheu resilience and resistance.

My connection to these historical narratives is further embodied in the physical and spiritual presence of Tama-ki-Hikurangi, the wharenui at Patuheuheu marae, Waiōhau. This meeting house, built for Te Kooti by the Patuheuheu people, stands as a testament to the hapū's endurance and serves as an anchor point for this research. Growing up with this wharenui has left a lasting impression on me, embedding narratives of loss, survival, and hope that shape my perspective on Patuheuheu identity and the broader context of Māori well-being.

It is important to acknowledge that Patuheuheu and Ngāti Haka, despite their distinct identities, have intermarried and lived together for generations, leading to a shared existence. While the historical narratives often highlight separate origins, our interconnected whakapapa and shared struggles have forged a unified sense of identity. Today, Patuheuheu and Ngāti Haka operate as one people, reflecting a deep bond that transcends historical differences. This unity is embodied in the prophecy of Te Umutaoroa, which continues to guide us as we navigate contemporary challenges together, including climate adaptation and community well-being.

My positioning is not solely defined by historical lineage but is also influenced by my recent participation in the Toi Rito Toi Rangatira - Rangatahi Climate Leadership Programme. In late 2023, I was chosen by my hapū, Patuheuheu and Ngāti Haka, to partake in this five-month initiative designed for rangatahi Māori engaged in Deep South Research projects. Initially, I questioned my inclusion in a youth programme, given my ‘advanced age.’ However, the kaumātua in Waiōhau perceived me as a rangatahi (youth), aligning with Pohatu’s (2003) concept of being both mokopuna (descendant) and tipuna (ancestor). Leveraging my academic background, the kaumātua encouraged my participation, anticipating that the insights gained would benefit our people.

The Toi Rito Toi Rangatira programme was a profound and transformative journey. It expanded my understanding of climate leadership, integrating contemporary rangatahi Māori viewpoints with ancient wisdom. Throughout this five-month experience, the focus extended beyond climate change, emphasising strengthening connections to whānau, hapū, and iwi, and empowering us to conceptualise holistic, taiao-centred management of our lands and communities.

Through this programme, I also came to understand the transformative power of balancing tradition and modernity. The integration of traditional Māori beliefs, such as the Te Umutaoroa prophecy, with scientific methods highlighted the need for climate solutions that respect cultural values while embracing holistic, innovative strategies. The emphasis on hapū-centred climate adaptation reinforced the importance of

prioritising the well-being of Māori communities and maintaining the spiritual, social, and environmental connections essential to our resilience.

The experience underscored the importance of acknowledging my role as a bridge between past and future generations, empowering me to engage in climate leadership that honours both traditional wisdom and contemporary knowledge. My participation reaffirmed that the path to climate resilience requires a collective effort, incorporating spiritual values, cultural practices, and intergenerational knowledge exchange. These reflections have deepened my understanding of Patuheuheu identity and strengthened my resolve to develop culturally responsive climate adaptation frameworks, rooted in the values and aspirations of my hapū.

Māori: A brief history

The origins of Māori are embedded in whakapapa, genealogy and oral traditions passed down through generations (Mahuika, 2019). Whakapapa links Māori to the Polynesian navigators who traversed the vast Pacific Ocean, guided by stars, ocean currents, and ancestral knowledge (Skerrett, 2023). These navigators hailed from Hawaiki; a revered ancestral homeland often referenced in pūrākau (Keelan-Peebles, 2022). The arrival of Māori to Aotearoa is captured in waiata, mōteatea, and pūrākau that celebrate the voyaging skills, adaptability, and resilience of ancestors (Tamarapa, 2024). These accounts go beyond historical records, embodying spiritual and cultural significance that illustrates the interconnectedness of people, their environment, and the cosmos (Teariki & Leau, 2024).

Māori spiritual beliefs are founded on a deep connection to the natural world, ancestors, and the concept of mauri (Fox, 2024). Central to these beliefs is the existence of atua who govern various aspects of the natural world and human life (Rangiwai, 2019). Notable deities include Tāne Mahuta, the god of forests and birds, and Tangaroa, the god of the sea. Māori cosmology encompasses creation narratives involving Ranginui (the Sky Father) and Papatūānuku (the Earth Mother), whose separation brought light to the world and shaped the environment (Rangiwai, 2019). These beliefs are maintained through rituals, karakia, and the observance of tapu, ensuring balance between the spiritual and physical realms (Rangiwai, 2019). They continue to be central to Māori identity, well-being, and everyday practices, influencing relationships, customs, and interactions with the natural world (Rout et al., 2024).

The arrival of Māori in Aotearoa is a significant historical event, marked by successful navigation and settlement (Anderson, 2016). Oral traditions recount that the first Polynesian explorers arrived in large ocean-going canoes, bringing with them plants, animals, and knowledge essential for survival in their new homeland (McDonald, 2022). These early settlers adapted to Aotearoa's diverse landscapes, developing new tools and techniques suited to the local environment (Holdaway et al., 2018). Over time, they

established distinct iwi and hapū, each with distinct territories, dialects, and customs (Maaka, 2003). This arrival and settlement are commemorated through place names, carvings, and narratives that honour the ancestors' achievements and legacy (Kiff, 2021). The arrival of Europeans in the late 18th century marked a pivotal change, introducing new technologies and altering the socio-economic landscape of Māori society (Belich, 2002). Despite these changes, Māori have preserved many cultural practices while adapting to new circumstances; this dynamic interplay between tradition and modernity continues to shape Māori identity in the contemporary world (Fox, 2024; Morrow, 2014).

European colonisation in the 19th century had profound and often devastating impacts on Māori society (Moewaka-Barnes & McCreanor, 2019). European contact introduced new diseases, decimating populations, and imposed new social, economic, and political structures that disrupted traditional ways of life (Belich, 2002; Jones, 2023; Nicolson, 2017). The systematic confiscation of land, often through legal means like the New Zealand Settlements Act of 1863, led to a significant loss of Māori land and resources (Rangiwai, 2015; Wynyard, 2019). This period also witnessed armed conflicts, such as the New Zealand Wars, where Māori defended their lands and sovereignty (Clavé-Mercier, 2024; Rangiwai, 2015). Despite these challenges, Māori displayed remarkable resilience, resisting colonisation through legal battles, political engagement, and cultural preservation (Rangiwai, 2015; Williams, 2022).

Christianity was introduced to Māori by European missionaries in the early 19th century, which brought significant religious and cultural shifts (Rangiwai, 2019). Missionaries such as Samuel Marsden and Henry Williams played crucial roles in spreading Christian teachings, establishing churches, and promoting literacy by translating the Bible into te reo Māori. While some Māori embraced Christianity and incorporated it into their cultural framework (Rangiwai, 2019), others either resisted or retained traditional beliefs alongside the new religion (Rangiwai, 2015). The influence of Christianity on Māori society was complex: it facilitated the spread of literacy and new forms of knowledge (Jones & Jenkins, 2011) but also contributed to the erosion of traditional beliefs and practices (Mikaere, 2011). Over time, Māori developed unique expressions of Christianity that blended traditional spirituality with Christian doctrine (Rangiwai 2019).

The signing of the Te Tiriti o Waitangi (the Treaty of Waitangi) in 1840 is a cornerstone event in Aotearoa New Zealand's history, aimed at establishing a framework for relations between Māori and the British Crown (Mutu, 2019). Te Tiriti o Waitangi is a sacred covenant that promises to protect Māori rights, land, and sovereignty while permitting peaceful coexistence with settlers (Jones, 2018). However, conflicting understandings led to widespread disputes and enduring tensions (Burns et al., 2024). The Crown's blatant and sustained failure to honour its promises resulted in the widespread confiscation of land, severe marginalisation, and devastating socio-economic inequities for Māori (Mutu, 2019).

Te Tiriti o Waitangi guaranteed Māori rights to their lands, forests, fisheries, and other possessions while also granting them the rights and privileges of British subjects (Orange, 2011). The interpretation and application of the Te Tiriti o Waitangi have been ongoing sources of contention, particularly regarding resource control and management (Stanley-Ryan, 2024), which is increasingly relevant in the digital age (Chrystall, 2021). Despite historical grievances, Te Tiriti o Waitangi remains central to contemporary Māori-Crown relations (Bargh & Jones, 2020), with ongoing efforts to address historical injustices (Henry & Poyser, 2024) through Treaty settlements (Mutu, 2019), legal recognition of Māori rights (Cribb et al., 2024), and the revitalisation of Māori culture and language (Barbour & Keegan, 2024).

Te Kooti as a Religious Leader and Resistance Figure

Te Kooti Arikirangi Te Turuki was a significant Māori religious leader and resistance figure in 19th-century New Zealand. His life and actions represented a fusion of spiritual leadership and political resistance against colonial oppression. During his imprisonment on the Chatham Islands in the 1860s, Te Kooti founded the Ringatū faith, a syncretic religion that combined Māori spirituality with Christian teachings, particularly those from the Old Testament (Binney, 1995; Davidson, 2004; Elsmore, 2000; Tarei, 2011; Walker, 2004). Te Kooti experienced prophetic visions while suffering from a serious illness, which he claimed came from divine inspiration. These visions formed the basis of his religious movement (Ross, 1966). The Ringatū faith, named after the "upraised hand" used in prayer, emphasised spiritual resilience and the maintenance of Māori cultural identity (Binney, 1995).

Te Kooti's ministry and teachings were imbued with both spiritual and political messages. He encouraged his followers to preserve their cultural practices and beliefs despite colonial pressures. His role as a religious leader gave him a platform to advocate for Māori autonomy, linking spiritual devotion with the socio-political reality of his people. Beyond his spiritual leadership, Te Kooti emerged as a central figure in Māori resistance against colonial rule. His resistance was primarily fuelled by the loss of Māori land and autonomy due to colonial invasion. After being wrongfully imprisoned on the Chatham Islands in 1866 without trial for allegedly conspiring with an Indigenous movement, Te Kooti led a daring escape in 1868, marking the beginning of his armed resistance against colonial forces (Binney, 1995; Elsmore, 2000; Salmond, 1976; Tarei, 2011; Walker, 2004).

As a leader, he rallied followers from various iwi, particularly the Tūhoe, in a guerilla warfare campaign against the Crown's forces. His strategy combined elements of traditional Māori warfare with spiritual guidance, invoking biblical references to inspire his people to reclaim their land (Binney, 1995; Greenwood, 1942). Identifying with the Old Testament figure of Moses, Te Kooti framed his struggle as a mission to deliver his out of bondage (Binney, 1995).

While his initial campaigns involved violent resistance, Te Kooti shifted focus later in life toward peaceful and religious pursuits, further developing the rituals and teachings of the Ringatū faith. He promoted the importance of understanding colonial laws, asserting that only the law could be used to fight the law (Binney, 1995). His legacy endures as both a prophet who inspired spiritual revival and a revolutionary who fiercely resisted the injustices of colonialism.

Te Kooti's dual role is thus pivotal in understanding Māori resistance during the colonial period. His religious movement provided a spiritual framework for political activism, using a blend of Māori spirituality and Christianity to challenge colonial domination and seek Māori self-determination. His words, teachings, and actions continue to resonate in the context of Māori struggles for autonomy and cultural preservation.

Brief historical background of Te Umutaoroa

In the late 19th century, the Patuheuheu and Ngāti Haka hapū suffered a significant loss when Te Houhi, a piece of land rich in resources and cultural heritage, was deceitfully taken from them (Binney, 2001; Rangiwai, 2015). This event, known as the Waiōhau Fraud, involved Harry Burt, a Pākehā settler who had gained the trust of the hapū by integrating himself into their community. Burt exploited this trust and his understanding of Māori language and customs to manipulate land transactions and legal processes facilitated by the Native Land Court—a colonial institution that unjustly dispossessed Māori of their lands (Binney, 2001; Rangiwai, 2015).

Burt's acquisition of Te Houhi was marked by underhanded dealings that misrepresented the intentions and rights of the hapū. He secured land ownership by using legal loopholes, forgery, and coercion, displacing the hapū from their land (Binney, 2001; Rangiwai, 2015).

In 1886, amidst the ongoing suffering and displacement of Patuheuheu and Ngāti Haka, Te Kooti, who was both a religious leader and a resistance figure, provided a beacon of hope through the prophecy of Te Umutaoroa (Binney, 2001; Rangiwai, 2015). This prophecy was a spiritual message and a socio-political manifesto that promised the restoration of land, dignity, and sovereignty to the hapū (Rangiwai, 2015). It articulated a vision of renewal and recovery through the following eight mauri as articulated by the late Reverend Hieke Tupe:

Te Mauri Atua - The essence of spirituality and the belief in God.

Te Mauri Whenua - The life force connected with the land.

Te Mauri Tangata - The life force of the people.

Te Mauri Whakapono - The power of belief or faith.

> **Te Mauri Whakaora i nga Iwi** - The power to heal the people.
>
> **Te Mauri Hohonu** - The life force of hidden wealth, potentially including underground resources like minerals, gold, diamonds, and oil.
>
> **Te Mauri Arai Atu i nga Pakanga** - The power to deflect war from the land to other countries.
>
> **Te Mauri Whakahoki i nga Iwi** - The power to return people to their land (Binney, 2001, p. 158).

The prophecy Te Umutaoroa remains a beacon of hope and future improvement for Patuheuheu and Ngāti Haka and continues to be discussed and analysed (Rangiwai, 2015, 2019). The wharekai at Waiōhau is named after Te Umutaoroa (Rangiwai, 2021a, 2021b; Shanks, 2018), reflecting its ongoing significance.

Climate change

Climate change, exacerbated by human activities since the Industrial Revolution, has become a pressing global concern, driving urgent action through key international agreements like the 2015 Paris Agreement, which aims to limit warming to well below 2°C, ideally 1.5°C, by balancing emissions and removals by 2050 (Moura et al., 2020). Before industrialisation, climate fluctuations were driven by natural factors such as volcanic eruptions, solar radiation changes, and greenhouse gas variations (Abayechaw, 2023). However, industrialisation significantly increased fossil fuel combustion, releasing large amounts of greenhouse gases, particularly CO_2, which trap heat in the atmosphere (Cecilia et al., 2021; Kumar, 2018). Since the mid-20th century, global temperatures have risen, intensifying extreme weather events like hurricanes, droughts, and heavy rainfall (Bhatti et al., 2024; Sillitoe, 2021), while rising sea levels, driven by melting ice caps and thermal expansion, threaten coastal ecosystems (Elneel et al., 2024). These changes disrupt biodiversity, shifting species distributions and causing extinctions (Lawlor et al., 2024). Climate change also affects human health, agriculture, and vulnerable communities such as Māori, highlighting the importance of integrating Indigenous and Māori knowledge with scientific methods to develop holistic, sustainable solutions that reflect the interconnectedness of nature and humanity (Lawrence et al., 2024; Yates, 2021).

Climate Change and the United Nations

The United Nations has led global climate action for decades, with the UN Framework Convention on Climate Change (UNFCCC), established in 1992, forming the basis for agreements like the Kyoto Protocol and Paris Agreement, recognising wealthier nations' greater responsibility for emissions reductions (Kuh, 2018; Maslin et al., 2023). Adopted at COP3 in 1997, the Kyoto Protocol set binding emissions targets for developed nations,

aiming for a 5.2% reduction below 1990 levels by 2008–2012, but its impact was weakened by the US's refusal to ratify it (Maslin et al., 2023). The Paris Agreement, adopted at COP21 in 2015, replaced Kyoto's rigid targets with a universal framework requiring all nations to submit Nationally Determined Contributions (NDCs) to limit warming below 2°C, ideally 1.5°C, with a five-year review cycle for increasing ambition (Matemilola et al., 2023; Maslin et al., 2023). Unlike Kyoto's binding targets, Paris mandates action from all countries, aiming for net-zero emissions by mid-century but with less enforceability (Maslin et al., 2023). Despite progress, weak enforcement, political resistance, and national priorities hinder climate goals, with some nations submitting ambitious NDCs while others lag, and key mechanisms like adaptation funding remaining underdeveloped (Santos et al., 2022; Khan et al., 2020). The evolving Common But Differentiated Responsibilities (CBDR) principle highlights the need for equitable climate action (Schneider, 2024), while non-state actors—cities, corporations, NGOs—play a growing role in COP initiatives like COP26 and COP27, addressing mitigation and adaptation gaps (Depledge et al., 2022).

Indigenous Peoples and Climate Change

Indigenous peoples experience the impacts of climate change disproportionately due to their close interdependence with natural ecosystems and reliance on local environments for food, cultural practices, and economic livelihoods (Rai et al., 2024). Climate shifts disrupt traditional ways of life, with effects not only environmental but cultural, as Indigenous practices and knowledge systems are intimately tied to their surroundings (Malapane et al., 2024). The geographic locations of many Indigenous communities—often in regions experiencing extreme climate changes like rising sea levels, extreme weather, and biodiversity loss—amplify their vulnerability (Reyes-Garcia et al., 2024). This proximity to nature and reliance on ecosystems position Indigenous communities uniquely on the frontlines of climate change, facing immediate challenges that impact daily life and cultural continuity (Sakapaji et al., 2024).

Indigenous knowledge systems, cultivated over thousands of years, offer critical insights for resilience and adaptation (Datta, 2024). These ecological frameworks encompass sustainable practices that are finely adapted to local ecosystems, presenting valuable models for resource management and environmental stewardship (Singh & Srivastava, 2024). Collaboration between Indigenous leaders and scientists has demonstrated that combining traditional knowledge with modern science can lead to enhanced conservation and adaptation strategies. Indigenous land management practices, such as controlled burns and sustainable harvesting, play a substantial role in ecosystem health and carbon sequestration (Kumar & Choudhury, 2024). However, climate change and legal challenges to Indigenous land rights place these practices at risk, emphasising the importance of protecting Indigenous sovereignty as part of climate resilience strategies (Datta et al., 2024). Recognising and supporting Indigenous stewardship is thus crucial

for sustainable environmental solutions and for leveraging knowledge systems that contribute to ecosystem health and carbon storage (Mallick et al., 2024).

The preservation of Indigenous lands is essential for biodiversity conservation and cultural continuity, as research indicates these lands often support higher biodiversity and healthier ecosystems compared to areas managed by industrial practices (Mbelebele et al., 2024). Biodiversity loss due to climate change also threatens Indigenous cultural heritage, as many species hold spiritual and cultural significance (Pearson et al., 2021). Protecting Indigenous-managed lands is therefore vital not only for ecosystem health but also for sustaining cultural and spiritual practices (Goolmeer et al., 2022). Indigenous communities are also developing innovative adaptation strategies tailored to their unique environments, offering models of resilience that can inspire global solutions (Raman et al., 2024). Centring climate action on Indigenous rights and perspectives allows for adaptation and mitigation strategies that are not only effective but also culturally respectful and sustainable, supporting both ecological integrity and the rights of Indigenous peoples (Carmona et al., 2024).

Climate Change and the New Zealand Government

New Zealand's climate change policy journey has been shaped by complex interactions between its distinctive environmental profile, agricultural dependence, and the evolving landscape of international climate agreements (Meurisse et al., 2024). The recent coalition government under Prime Minister Christopher Luxon, formed after the 2023 general election, has signalled policy changes aimed at balancing economic and environmental goals in a politically and socially intricate setting (Powles & Wallis, 2024).

New Zealand's focus on environmental issues began in the 1970s, centring initially on pollution and conservation rather than climate change specifically (Crawley & Dinica, 2022; Lonie, 2024). The global momentum in the 1980s, including the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988, encouraged New Zealand to consider its responsibilities in worldwide environmental issues (Ministry for the Environment, 1994). By the 1990s, with the UNFCCC signed in 1992, New Zealand joined international efforts to stabilise greenhouse gas emissions (Ministry for the Environment, 1994). However, its initial response to climate change was hesitant, often emphasising voluntary measures and research rather than strict, binding targets—partly because nearly half of New Zealand's emissions came from agriculture, a sector largely excluded from emissions policies globally at that time (Ministry for the Environment, 1994).

New Zealand's signing of the Kyoto Protocol in 1998 (ratified in 2002) marked a shift towards more concrete climate commitments, with the country agreeing to maintain its emissions at 1990 levels during the first commitment period (2008–2012) (Sturman,

2021; Wang et al., 2021). The New Zealand Emissions Trading Scheme (NZ ETS), launched in 2008, was established as the primary mechanism for reducing greenhouse gas emissions and was among the first emissions trading schemes outside Europe (Sturman, 2021; Wang et al., 2021). Initially covering only forestry, the NZ ETS expanded in 2010 to include other sectors, although agriculture remained excluded due to its economic significance (Sturman, 2021; Wang et al., 2021). This decision drew criticism both within New Zealand and abroad, highlighting the tension between lowering emissions and preserving agricultural productivity (Kerr & Zhang, 2009).

New Zealand ratified the Paris Agreement in 2016, originally pledging to reduce greenhouse gas (GHG) emissions by 30% below 2005 levels by 2030 as part of its Nationally Determined Contributions (NDCs) (Semmelmayer, 2020). In 2021, the government updated this target to a 50% reduction below 2005 levels by 2030, although this revised figure is not directly reflected in the Climate Change Response (Zero Carbon) Amendment Act 2019. The Act itself sets a goal of net-zero carbon emissions by 2050 for all greenhouse gases except biogenic methane, which has a separate target of a 24–47% reduction below 2017 levels by 2050, with an interim goal of a 10% reduction by 2030 (Semmelmayer, 2020).

The Zero Carbon Act also created the Climate Change Commission, an independent body responsible for advising the government on emissions budgets, monitoring progress, and assessing climate risks. However, since it lacks direct enforcement authority, the Commission relies on government discretion to implement its recommendations, raising questions about ensuring long-term compliance (Semmelmayer, 2020). The Act stands as a cornerstone of New Zealand's climate policy, establishing a far-reaching commitment to address climate change. Yet, it also highlights the country's reliance on innovative solutions—particularly in reducing agricultural methane—to achieve its ambitious goals (Parliamentary Commissioner for the Environment, 2018).

The Current Coalition Government's Policy Adjustments (2023–Present)

Following the 2023 general election, a centre-right coalition led by Prime Minister Christopher Luxon (National Party), with support from ACT and New Zealand First, took office (Vowles et al., 2024). This coalition emphasises economic growth and energy security, potentially reshaping climate policy (McLachlan, 2023). It has indicated a desire to revisit the 2018 offshore oil and gas exploration ban, but no formal reversal has been enacted (New Zealand Government, 2024). Critics argue that further exploration could undermine New Zealand's climate goals and increase reliance on fossil fuels (Pourzand et al., 2024).

The government also proposes delaying agricultural emissions pricing—originally set for 2025 under He Waka Eke Noa—by up to five years to accommodate further

consultation and address farmers' concerns (Arnt, 2024; Boston, 2024; Haugh, 2024; Dačić, 2024; Hegarty, 2024). While many in the farming community support a delay, environmental advocates warn it postpones progress on a key emissions source (Haugh, 2024; Hegarty, 2024).

Another policy direction includes increasing support for mining and resource extraction, aiming to bolster the economy and address the current account deficit (Bookman & Marti, 2024; Parliament of New Zealand, 2024). Critics caution that expanding mining may prioritise short-term gains over sustainability (Bookman & Marti, 2024).

In mid-2024, the government outlined a revised climate policy framework (Ministry for the Environment, 2024a), retaining overall emissions reduction targets while highlighting:

1. Infrastructure resilience (drawing on lessons from Cyclone Gabrielle)
2. Strengthening market mechanisms (e.g., NZ ETS reforms)
3. Clean energy expansion (e.g., "Electrify NZ")
4. Innovation in agriculture and energy efficiency
5. Nature-based solutions (forests, wetlands)

Although these approaches balance environmental and economic goals, questions remain about their effectiveness amid potential policy shifts on agriculture and fossil fuels (Ministry for the Environment, 2024b).

Despite commitments to the Zero Carbon Act, analysts warn that current policies may prove insufficient to meet emissions reduction milestones (reports, mid-2024). The Emissions Reduction Plan for 2026–2030 is under consultation, and its outcomes will determine whether the coalition can reconcile pro-growth priorities with significant emissions cuts. Decisions around resource extraction, agricultural policy, and the clean energy transition will have lasting consequences for New Zealand's climate ambitions.

Māori and climate change

Indigenous communities are vulnerable to climate change due to close ties to territories, historical marginalisation, and exclusion from global forums (Ullah et al., 2023). Indigenous knowledge offers essential solutions to climate change shaped by generations of interdependent relationships with the natural world (Chew & Chief, 2023; Erueti et al., 2023; Lambert et al., 2018; Mardero et al., 2023; McAlister et al., 2019; Orlove et al., 2023). Climate change presents substantial challenges for Māori in Aotearoa, New Zealand, placing Māori cultural heritage, economic assets, and overall well-being at heightened risk from extreme weather events (Awatere et al., 2021).

At a government level, integrating indigenous knowledge into policy may lead to more effective climate solutions (Garai et al., 2023; Kenney et al., 2023; Rahman & Rashid, 2024; Ullah et al., 2023; Yeleliere et al., 2023). Also, the inclusion and authentic integration of mātauranga Māori into policy (Hikuroa, 2017; Moko-Painting et al., 2023; Robson-Williams et al., 2023) may also result in more effective climate solutions for Aotearoa New Zealand (Awatere, 2022; Awatere et al., 2021; Erueti et al., 2023; Mannakkara et al., 2023; Masters-Awatere et al., 2023; Mercier & Jackson, 2023). Mātauranga-a-hapū, or hapū-based knowledge, like that of Te Kooti's Te Umutaoroa prophecy, can be used at the local level to develop hapū climate solutions.

As climate change's impacts become more pronounced—evidenced by increased temperatures, more extreme weather events, sea-level rise, and shifting wildlife populations and habitats—adaptation is increasingly recognised as an essential component of an integrated response to climate change (Suhaeb et al., 2024). Without effective adaptation, the impacts of climate change could severely disrupt economic stability, environmental sustainability, and the health and safety of populations worldwide (Robins et al., 2024).

Māori climate adaptation frameworks

Climate adaptation frameworks are structured approaches that support communities, governments, and organisations in planning and responding to climate change impacts. These are crucial for reducing vulnerability and enhancing resilience against climate-related hazards (Joakim et al., 2021; Simpson et al., 2021). Adaptation frameworks vary widely, from highly localised approaches focusing on specific community needs to broader regional or national strategies, and for Māori, these frameworks incorporate traditional knowledge developed over generations (Lawrence et al., 2024; Manning et al., 2015; Rout et al., 2024).

Prophetic reflections on Te Umutaoroa as a hapū climate adaptation framework

Prophetic reflection is a process of clarifying, interpreting, and applying the messages delivered by prophets, which are often rich in symbolism and allegory (Jarrett, 2024). The Te Umutaoroa prophecy, gifted by Te Kooti to Patuheuheu and Ngāti Haka in 1886, serves as a guiding vision for resilience, restoration, and self-determination. Climate change—an existential threat to whenua, wai, and whakapapa—demands responses that are not only scientific but also entrenched in cultural and spiritual wisdom.

Through prophetic reflection, the eight mauri of Te Umutaoroa can be understood as pillars of a hapū-led climate adaptation framework. These mauri provide a way to align climate strategies with the prophecy's spiritual, cultural, and environmental teachings.

Te Mauri Atua – The Essence of Spirituality

Prophetic reflection highlights the sacred connection between hapū and the natural world, recognising that climate adaptation must be more than technical—it must also be spiritual. Traditional rituals, karakia, and ceremonies are not only expressions of faith but also mechanisms of resilience, reinforcing hapū identity and strengthening the relationship between tangata and whenua.

Adaptation strategies that integrate spiritual practices—such as maramataka-based planning, ceremonial planting, and seasonal observances—can enhance ecological restoration efforts and promote a deeper understanding of environmental cycles. Hapū leaders and tohunga play a critical role in guiding these spiritual practices, ensuring that adaptation remains culturally grounded.

Te Mauri Whenua – The Life Force of the Land

The land is both a living entity and a source of sustenance, carrying the memory of past struggles and the promise of future restoration. Prophetic reflection allows for an interpretation of land stewardship as an active fulfilment of Te Umutaoroa, where the prophecy's call for renewal is realised through sustainable land management.

This includes:

- Restoring traditional land-use practices, such as maara kai and riparian planting, to enhance biodiversity and water retention.
- Combining mātauranga Māori with modern ecological knowledge, ensuring climate adaptation efforts align with both ancestral teachings and contemporary environmental science.
- Recognising whenua as a taonga tuku iho, resisting extractive industries that threaten hapū sovereignty and environmental balance.

By revitalising these relationships with the land, Patuheuheu and Ngāti Haka can withstand the disruptions of climate change and secure the whenua for future generations.

Te Mauri Tangata – The Life Force of the People

People are at the heart of climate adaptation, and Te Umutaoroa's prophetic message calls for the well-being and resilience of hapū members. Climate change disproportionately affects Māori communities, exacerbating issues such as food insecurity, housing instability, and mental health challenges.

Prophetic reflection encourages a hapū-led approach to adaptation, ensuring that people have the resources, support, and knowledge needed to thrive. This may involve:

- Developing food sovereignty initiatives, such as maara kai and rongoā gardens, to reduce dependence on external food systems.
- Strengthening mental health and well-being services, particularly for rangatahi, to address climate anxiety and strengthen collective resilience.
- Prioritising intergenerational knowledge exchange, ensuring that traditional skills, such as building wharepuni or reading maramataka, are passed down.

By promoting a strong, resilient hapū, adaptation strategies become more effective and sustainable.

Te Mauri Whakapono – The Power of Belief

A key aspect of prophetic reflection is belief in the hapū's ability to adapt and thrive. Te Umutaoroa teaches that faith and determination are essential for overcoming adversity. In the face of climate change, collective belief in the power of traditional knowledge, innovation, and self-determination strengthens adaptation efforts.

Hapū-led initiatives can incorporate this mauri by:

- Celebrating narratives of resilience through pūrākau, waiata, and kapa haka to inspire confidence in the hapū's ability to lead climate action.
- Encouraging whānau participation in decision-making, reinforcing that adaptation is a collective responsibility.
- Uplifting Māori-led research and innovation, ensuring that adaptation frameworks are developed by and for Māori.

By instilling a strong sense of belief in climate resilience, hapū members become proactive agents of change rather than passive victims of environmental disruption.

Te Mauri Whakaora i Ngā Iwi – The Power to Heal

Climate change is not just an environmental crisis—it is also a social and emotional challenge. Te Kooti's prophecy speaks of healing, a concept that must be embedded in adaptation strategies to address the deep wounds caused by colonisation, land dispossession, and environmental degradation.

This healing can take place through:

- Incorporating rongoā Māori into climate adaptation, ensuring access to traditional healing practices to support well-being.
- Creating safe spaces for community healing, such as wānanga that focus on intergenerational trauma and environmental restoration.
- Recognising whenua as a source of healing, engaging in land-based activities such as tree planting and river restoration to restore both ecosystems and cultural identity.

By centring healing in adaptation, hapū can build resilience not just in the environment, but also in the people.

Te Mauri Hōhonu – The Life Force of Hidden Potential

Climate adaptation requires recognising and activating the hidden potential within hapū—skills, knowledge, and resources that may have been overlooked or undervalued. Prophetic reflection allows for an exploration of possibilities, ensuring that hapū resilience is built on innovation and self-sufficiency.

This could include:

- Revitalising traditional skills, such as waka building, sustainable harvesting, and Māori architecture, which offer valuable adaptation insights.
- Supporting rangatahi-led initiatives, empowering young leaders to develop innovative climate solutions.
- Exploring sustainable economic opportunities, such as Māori-led eco-tourism or regenerative agriculture, that align with hapū values.

By unlocking the hidden mauri within the community, climate adaptation becomes a pathway for self-determination and renewal.

Te Mauri Arai Atu i Ngā Pakanga – Conflict Resolution

Climate change will intensify conflicts over resources, land, and water, making conflict resolution a key part of adaptation. The prophetic wisdom of Te Umutaoroa calls for peaceful, collective decision-making, ensuring that disputes are resolved in ways that maintain hapū unity.

Strategies for this include:

- Establishing hapū-led mediation processes to address conflicts over resource use and land management.

- Promoting consensus-building through wānanga and hui, ensuring all voices are heard in climate adaptation planning.
- Strengthening mana whenua rights, protecting hapū interests against external pressures from government policies and corporate interests.

By prioritising collaborative and culturally grounded conflict resolution, adaptation efforts remain unified and effective.

Te Mauri Whakahoki i Ngā Iwi – The Power to Return People to the Land

One of the greatest risks of climate change is displacement, with Māori communities already facing the threat of losing ancestral lands due to sea-level rise, extreme weather events, and economic pressures. Te Umutaoroa's prophecy speaks of restoring the people to their whenua, making land return and sovereignty key pillars of adaptation.

Hapū-led strategies may include:

- Securing land for future generations, ensuring that adaptation efforts prioritise long-term sustainability.
- Developing infrastructure that aligns with Māori values, creating climate-resilient papakāinga and marae-based emergency response plans.
- Promoting sustainable reoccupation, supporting whānau to return to ancestral lands through food sovereignty projects, eco-housing, and land-based economic opportunities.

By reclaiming and restoring whenua, hapū ensure that future generations remain connected to their ancestral lands despite the challenges of climate change.

Conclusion

The Te Umutaoroa prophecy, gifted by Te Kooti to Patuheuheu and Ngāti Haka, provides a powerful and culturally grounded framework for hapū-led climate adaptation. Through prophetic reflection, the eight mauri of Te Umutaoroa offer a comprehensive approach that integrates spirituality, land stewardship, community well-being, faith, healing, unlocking potential, conflict resolution, and the restoration of people to their lands. This framework recognises that effective climate adaptation must extend beyond scientific and technical solutions—it must be embedded in whakapapa, mātauranga Māori, and collective resilience.

By centring Te Umutaoroa in climate adaptation strategies, Patuheuheu and Ngāti Haka can strengthen their ability to navigate the challenges of climate change while

maintaining cultural identity and sovereignty. The integration of traditional knowledge with contemporary environmental strategies highlights the potential for Indigenous frameworks to inform and enhance climate resilience. Furthermore, this approach underscores the importance of hapū self-determination, ensuring that adaptation efforts align with the values, needs, and aspirations of Māori communities.

Moving forward, there is a need for further research, collaboration, and policy engagement to refine and implement Te Umutaoroa as a climate adaptation framework. Strengthening relationships between hapū, iwi, researchers, and policymakers will be essential in ensuring that this framework not only addresses immediate climate challenges but also encourages long-term resilience. By embracing the wisdom of Te Umutaoroa, Patuheuheu and Ngāti Haka can continue their legacy of resistance, restoration, and leadership in the face of environmental change.

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