HINEMOANA MARKHAM-NICKLIN

PROTECTING TE MOANA-NUI-A-KIWA THROUGH INDIGENOUS OCEAN GOVERNANCE AND A REVITALISED REGIONAL POLICY AGREEMENT

LAWS523: International Climate Change Law

Submitted for the LLB(Honours) Degree

Te Kauhanganui Tātai Ture | Faculty of Law

Te Herenga Waka | Victoria University of Wellington

Abstract

Anthropogenic climate change is causing mass destruction that transcends all aspects of the natural environment. The onslaught of climate change generates particularly devastating outcomes for the ocean, and for indigenous peoples in the Pacific who rely on the ocean for sustenance, income, culture and spirituality. This paper seeks to elucidate the level of empowerment for indigenous approaches to ocean governance across the Pacific region. The Hauraki Gulf Marine Park in Aotearoa and the Marae Moana Marine Park in the Cook Islands are analysed as examples of co-governance arrangements in the Pacific. The paper canvases the plethora of regional policy commitments that demonstrate a shared desire in the region to protect and conserve the Pacific Ocean. However, these policies are not reaching their potential and the role of indigenous peoples in these co-governance arrangements must be strengthened. This paper ultimately asserts that a revitalised regional agreement, that is based on indigenous leadership, and supports Pacific nations to implement domestic ocean policy, is required to protect and preserve Te Moana-nui-a-Kiwa.

Key words

Climate change, indigenous ocean governance, the Pacific Ocean, Pacific region, Marae Moana Marine Park, Hauraki Gulf Marine Park

Table of Contents

Glos	ssar	y of Maori terms	4
I	In	troduction	5
II	Cl	limate change, the ocean and indigenous knowledge	8
A		Climate change and the ocean	8
В		Importance of the ocean	10
C		Indigenous peoples and indigenous knowledge	11
III	M	āori approaches to ocean governance in Aotearoa	14
A		The Māori relationship with the environment	14
В		Kaitiakitanga	16
C		Co-governance in Aotearoa	17
	1	Ecosystem-based management and tikanga Māori	18
	2	Marine protected areas	20
	3	Tīkapa Moana Hauraki Gulf Te Moananui-a-Toi	21
IV		Pacific approaches to ocean governance	26
A		Traditional Pacific approaches to ocean management	28
В		Co-governance in the Pacific	30
	1	Marae Moana Marine Park - Cook Islands	31
V	Pa	ncific regional commitments	35
A		Pacific Islands Regional Ocean Policy and the Framework for Integrated Strategic Action	35
В		Pacific Plan	37
C		Pacific Oceanscape	37
D)	Pacific Islands Framework for Action on Climate Change 2006-2015	39
Е		Critiques of these instruments	39
VI		Required action	41
A		A revitalised regional agreement is required	42
В		Based on indigenous leadership and knowledge	43
C		Coordination and cooperation in the region	46
Е		Measurable targets, monitoring and reporting	47
F		Resourcing and capacity building	48
G	f	Ecosystem-based management	50
Н		Recognising the Pacific Ocean as a legal entity	51
VII		Conclusion	52
VIII		Bibliography	54

Glossary of Māori terms

Aotearoa - New Zealand

Hapū - kinship group, subtribe, the primary political unit in traditional Māori society

Iwi - extended kinship group, tribe

Kaitiaki - guardians, stewards

Kaitiakitanga - guardianship, stewardship

Ki uta ki tai - from the mountains to the sea

Kotahitanga - unity

Kupe - an early visitor to Aotearoa

Mahinga kai, pātaka kai - replenishing the food basket

Mahi - work, effort

Manaakitanga - care, kindness, generosity

Manaaki - to support, to care for

Mana - authority, prestige, control

Mana moana - authority derived from a connection to the ocean, people of the ocean

Mana whenua - authority derived from a connection to the land, people of the land

Marae - the courtyard/open area of a Māori meeting house

Mātauranga Māori - Māori knowledge

Mauri - life force

Moana - sea, ocean

Pāua - abalone

Rāhui - prohibition, ban

Rangatiratanga - sovereignty, chieftainship

Rohe - territory

Tangaroa - God of the sea/tutelary denizen of the ocean

Tangata whenua - indigenous people of the land

Taonga - treasure, something prized or significant

Tapu - to be sacred, prohibited, restricted

Te ao Māori - the Māori world

Te Moana-nui-a-Kiwa - the Pacific Ocean

Tikanga Māori - the right way of doing things

Tūpuna - ancestors

Urupā - burial ground, cemetery

Utu - reciprocity

Waka - canoe, vehicle, boat

Whakapapa - genealogy

Whānau - extended family, family group

Whanaungatanga - kinship and relationships

I Introduction

Anthropogenic climate change is causing mass destruction that transcends all aspects of the natural environment. As noted in the Intergovernmental Panel on Climate Change ('IPCC') Sixth Assessment Report:¹

It is unequivocal that human influence has warmed the atmosphere, ocean, and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere, and biosphere have occurred.

The onslaught of climate change generates particularly devastating outcomes for the ocean. The ocean is warming, the sea level is rising, and coastal ecosystems are becoming more vulnerable due to "intensified marine heatwaves, acidification, loss of oxygen [and] salinity intrusion". Further, the ocean is under threat of increased pollution and plastic waste, overfishing, and drilling. These factors culminate to create an 'unprecedented ecological crisis'. The health of the ocean and the health of humans are inextricably linked. The ocean is 'our planet's largest life support system'. The ocean stores carbon, produces oxygen, regulates the weather, and is a source of food, renewable energy, income, culture, and transportation. Therefore, the effects of climate change on the ocean must be mitigated to ensure healthy futures for all people.

The Pacific Ocean is the world's largest and deepest ocean, spanning a third of the earth's surface. Māori and Pacific Island peoples have acted as kaitiaki (guardians) for Te Moana-nui-

_

¹ IPCC "Summary for Policymakers" in IPCC Climate Change 2021: The Physical Basis. Working Group 1 Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, Cambridge, 2021) at 5.

² IPCC "Summary for Policymakers" in IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (2019) at 13.

³ Meg Parsons and Lara Taylor "Why Indigenous knowledge should be an essential part of how we govern the world's oceans" (8 June 2021) The Conversation www.theconversation.com.

⁴ Angel Borja and others "Moving Toward an Agenda on Ocean Health and Human Health in Europe" (2020) 7 Front Mar Sci 1 at 1.

⁵ Linwood Pendleton, Karen Evans and Martin Visbeck "We need a global movement to transform ocean science for a better world" (2020) 117 PNAS 9652 at 9652.

⁶ Jodie L. Rummer and others "It might be the world's biggest ocean, but the mighty Pacific is in peril" (6 December 2020) The Conversation <www.theconversation.com>; Borja and others, above n 4, at 1; IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 5; The Economist Group: World Ocean Initiative "COP26 and the ocean-climate nexus" (28 April 2021) <www.ocean.economist.com>.

⁷ Rummer and others, above n 6.

a-Kiwa (the Pacific Ocean) since time immemorial.⁸ Their traditional ways of managing, protecting and conserving the ocean "predate Western models for marine protection and offer a culturally appropriate, community-driven approach to sustainable resource use".9 Understanding Māori and Pacific approaches to ocean governance is critical to developing effective adaptation and mitigation strategies. Islands in the Pacific region are increasingly vulnerable to the onslaught of climate change, but these nations possess "a long history of resilience to environmental variability". ¹⁰ This resilience and adaptive capacity is encouraging in the face of their increased exposure and susceptibility to the consequences of climate change.11

The common goal of protecting and preserving the marine environment has proved to be an 'important catalyst' for cooperation in the Pacific region. ¹² A shared concern for the future has provided the momentum to adopt contemporary regional policies and multilateral agreements across the Pacific.¹³ These instruments serve as a testament to the commitment to building climate resilience in Te Moana-nui-a-Kiwa. 14 In Aotearoa | New Zealand and in the Cook Islands, this commitment has materialised into implementing large-scale marine parks known as Tīkapa Moana | Hauraki Gulf Marine Park (hereinafter referred to as 'Tīkapa Moana') and Marae Moana Marine Park ('Marae Moana'). However, these approaches are not reaching their

⁸ Eric Kwa "Climate Change and Indigenous Peoples in the South Pacific: The Need for Regional and Local Strategies" in Benjamin J. Richardson and others (eds) Climate Law and Developing Countries (Edward Elgar Books, 2009) 102 at 103; United Nations Environmental Programme UNEP and Indigenous Peoples; A Partnership in Caring for the Environment Policy Guidance (26 November 2012) at 5, as cited in Mylene MD Rakena "Māori Environmental Governance and Ecosystem-based Management in Aotearoa, New Zealand" in Robert Joseph and Richard Benton (eds) Waking the Taniwha: Māori Governance in the 21st Century (Thomas Reuters, Wellington, 2021) 897 at 902.

⁹ Marjo Vierros and others Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy (United Nations University, Darwin, 2010) at 1.

¹⁰ Heather L. McMillen and others "Small islands, valuable insights: systems of customary resource use and resilience to climate change in the Pacific" (2014) 19(4) Ecol and Soc 44.

¹¹ McMillen and others, above n 10.

¹² Catherine Giraud-Kinley "The Effectiveness of International Law: Sustainable Development in the South Pacific Region" (1999) 12 GeoInt'l Envtl L Rev 125 at 127. For the purposes of this essay, the 'Pacific region' constitutes the twenty-two Pacific Island nations, including the Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, The Cook Islands, French Polynesia, Guam, New Caledonia, Niue, Pitcairn Islands, American Samoa, Northern Mariana Islands, Tokelau, Vanuatu and Wallis and Futuna, as well as Australia and Aotearoa | New Zealand. This categorisation of the region is consistent with the membership of the Secretariat of the Pacific Regional Environment Programme, but excludes the United Kingdom, the United States of America and France. See Secretariat of the Pacific Regional Environment Programme "Members" <www.sprep.org>.

¹³ Marjo Vierros and others "Considering Indigenous Peoples and local communities in governance of the global ocean commons" (2020) 119 Mar Poly 1 at 8; Cristelle Pratt and Hugh Govan Our Sea of Islands, Our Livelihoods, Our Oceania - Framework for a Pacific Oceanscape: a catalyst for implementation of ocean policy (November 2010) at 7.

Pratt and Govan, above n 13, at 7.

potential. A strengthening of the regional ocean policy framework is required to translate high-level aspirations into domestic policy and climate action. To ensure that Te-Moana-nui-a-Kiwa is protected, the Pacific region must develop and adopt a new and improved regional agreement. A revitalised regional agreement must be based on indigenous leadership and indigenous knowledge, enhance regional collaboration and cooperation, establish measurable targets and robust monitoring and reporting processes, support nations to build capacity and resources, and must be underpinned by ecosystem-based management (EBM). Further, a relinquishing of power by national governments will allow for greater empowerment of Māori and Pacific Island approaches to ocean governance, increased self-determination and reconnection with the natural world, and the opportunity for mana moana to fulfil kaitiaki responsibilities.¹⁵ A strengthened regional agreement that instigates national policy has significant potential to operationalise and affirm the underlying regional culture of ocean stewardship and promote the protection and preservation of Te Moana-nui-a-Kiwa.

This paper seeks to elucidate the level of empowerment for indigenous approaches to ocean governance across the Pacific region and ultimately asserts that a revitalised regional agreement is required to protect and preserve Te Moana-nui-a-Kiwa. Part II of this paper analyses the effects of climate change on the ocean, the important connection indigenous peoples share with the ocean and the requirement to incorporate indigenous knowledge into climate change responses. Part III examines Māori approaches to ocean governance through exploring the Māori relationship with the environment and tikanga Māori. This section then explains co-governance arrangements in Aotearoa, highlighting the synergy between EBM and tikanga Māori and focuses on Tīkapa Moana as a co-governance regime that has the potential to affirm the role of Māori as kaitiaki. Part IV examines Pacific Island nations' approaches to ocean governance, including customary practices that have been observed for thousands of years, and the establishment of the Marae Moana Marine Park in the Cook Islands. The paper concludes that Tīkapa Moana and Marae Moana fail to devolve sufficient decision-making power to Māori and Pacific Island peoples, which inhibits the ability conserve Te Moana-nui-a-Kiwa. Part V canvases the plethora of regional commitments currently in operation in the

¹⁵ 'Mana moana' refers to authority derived from a connection to the ocean, see Carwyn Jones *New Treaty, New Tradition: Reconciling New Zealand and Māori Law* (UBC Press, Vancouver, 2016) at 69; Catherine Iorns Magallanes "Māori Co-governance and / or Co-management of Nature and Environmental Resources" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 301 at 317 citing Evelyn Pinkerton (ed) *Co-operative Management of Local Fisheries* (University of British Columbia Press, Vancouver, 1989).

Pacific region and suggests that while they demonstrate strong collaboration between nations, they are not reaching their potential. Part VI asserts that a strengthened regional agreement that instigates national policy is necessary to protect and preserve Te Moana-nui-a-Kiwa.

II Climate change, the ocean and indigenous knowledge

A Climate change and the ocean

Climate change "is one of the most pervasive and threatening crises of our time". ¹⁶ Scholars have asserted that human action, primarily the excessive consumption of materials, energy and services, has led to the rapid degradation of terrestrial and marine ecosystems. ¹⁷ Anthropogenic climate change is causing simultaneous shifts in ocean temperature, ocean levels, ocean acidification and weather patterns. ¹⁸ These effects are particularly pronounced in the Pacific region.

Since 1970 the ocean has absorbed "more than 90% of the excess heat in the climate system", and "since 1993, the rate of ocean warming has more than doubled". Oceaned warming is now being observed at depths of 1,000 metres, and "the top few metres of the ocean store as much heat as the planet's entire atmosphere. Oceans in Aotearoa have experienced a 0.2 degrees celsius average increase in coastal water temperature per decade. Though the "ocean's ability to absorb excess heat has shielded humans from even more rapid changes in climate, it is bearing the brunt of climate change. The warming of the ocean threatens marine life, damages coral reefs, and jeopardises food security and income that is derived from marine fisheries, the warming given the reliance in the

¹⁶ United Nations Environment Programme "Why does climate change matter?" (2020)

<a href="mailto://www.unep.org/a

¹⁷ Rakena, above n 8, at 899.

¹⁸ Scott C. Doney and others "Climate Change Impacts on Marine Ecosystems" (2011) 4 Annu Rev Mar Sci 11 at 11.

¹⁹ IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 9.

²⁰ The Economist Group: World Ocean Initiative, above n 6.

Ministry for the Environment and Statistics New Zealand New Zealand's Environmental Reporting Series: Our marine environment 2019 (October 2019) at 7.

²² International Union for Conservation of Nature *Issues brief: Ocean Warming* (November 2017).

²³ International Union for Conservation of Nature, above n 22.

²⁴ Mirjam Macchi and others *Indigenous and Traditional Peoples and Climate Change* (International Union for Conservation of Nature, Issues Paper, March 2008) at 30.

²⁵ Mary Ruckelshaus and others "Securing ocean benefits for society in the face of climate change" (2013) 40 Mar Poly 154 at 155; see also International Union for Conservation of Nature, above n 22.

Pacific region on fisheries for sustenance and livelihoods.²⁶ The warming of the oceans also intensifies storms, alters ocean circulation patterns, and stimulates sea level rise.²⁷

As the climate system warms, the global mean sea level rises. The global mean sea level increased by 0.2 meters between 1901 and 2018 and the average rate of sea level rise has increased from 1.3 millimetres yr⁻¹ between 1901 and 1971 to 3.7 millimetres yr⁻¹ between 2006 and 2018.²⁸ Thermal ocean expansion can be attributed to 50 per cent of sea level rise between 1971 and 2018.²⁹ If warming is limited to 1.5 degrees celsius, the global mean sea level is predicted to rise by 2-3 meters over the next 2000 years.³⁰ However, in the most severe scenario, if warming exceeds 5 degrees celsius, the global mean sea level could rise by 19-22 meters.³¹ The effects of sea level rise include saltwater intrusion causing loss of freshwater, the displacement of communities, shrinking exclusive economic zones ('EEZs'), and in extreme cases, complete inundation.³²

In Aotearoa, on average, the sea level has risen 2.4 millimetres per year between 1961 and 2018.³³ The perils of sea level rise threaten coastal dwellings in Aotearoa, including marae, urupā and other sites of significance to Māori. Sea level rise has particularly catastrophic consequences for Pacific Island nations, as 97 per cent of the population resides within 10 kilometres of the coastline.³⁴ Further, island nations in the Pacific are vulnerable to sea level rise that is four times the global average.³⁵ These differences are due to changes in ocean dynamics, the "redistribution of mass between the cryosphere and the ocean" and "vertical land".

²⁶ Olivia Warrick and others "The 'Pacific Adaptive Capacity Analysis Framework': guiding the assessment of adaptive capacity in Pacific island communities" (2017) 17 Reg Environ Change 1039 at 1039 citing IPCC "Small Islands" in IPCC Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, Cambridge, 2014) 1613; Mary Power and Anama Solofa "The Pacific Islands Regional Ocean Policy and the Framework for a Pacific Oceanscape: 'Many Islands — One Ocean'" in Biliana Cicin-Sain, David Vanderzwaag and Miriam C. Balgos (eds) Routledge Handbook of National and Regional Ocean Policies (Routledge London, 2015) 504 at 506

National and Regional Ocean Policies (Routledge, London, 2015) 504 at 506.

Alejandra Borunda "Ocean warming, explained" (14 August 2019) National Geographic www.nationalgeographic.com; see also Doney and others, above n 18, at 11.

²⁸ IPCC "Summary for Policymakers: Climate Change 2021", above n 1, at 6.

²⁹ At 14.

³⁰ At 28.

³¹ At 28.

³² Erika J. Techera "Climate change, legal governance and the Pacific Islands: an overview" in Randall S. Abate and Elizabeth Ann Kronk (eds) *Climate Change and Indigenous Peoples: the search for legal remedies* (Edward Elgar Books, Cheltenham, 2013) 339 at 346-348.

³³ Ministry for the Environment and Statistics New Zealand, above n 21, at 7.

³⁴ Neil L. Andrew "Coastal proximity of populations in 22 Pacific Island Countries and Territories" (2019) 14(9) PLOS ONE 1 at 7.

³⁵ IPCC "Small Islands", above n 26, at 1619.

motion". The IPCC has determined that "some island nations are likely to become uninhabitable due to climate-related ocean and cryosphere change"³⁷ as sea level rise could cause island nations to be submerged. 38 Nations such as Kiribati, which have a maximum height of 3-4 meters above sea level, face the imminent risk of being completely inundated.³⁹

The ocean is also vulnerable to accelerating acidification, which threatens delicate marine ecosystems and generates grave consequences for coral structures, molluscs and fish. 40 As the ocean becomes more acidic, molluscs "have trouble making and repairing their shells" as well as "exhibit[ing] impaired growth, metabolism, reproduction, immune function and altered behaviours". ⁴¹ This could have catastrophic effects on pāua, cockles, oysters and other species that grow carbonate shells. Accelerating acidic waters can impair a fish's "sense of smell, vision and hearing" as well as their survival traits. 42 Increasing acidification poses irreversible and devastating threats to coral reefs as 'bunkers of marine biodiversity'. 43 This is particularly concerning in the Pacific region as the Pacific Ocean is home to "more than 10,000 species found nowhere else on earth".44

В Importance of the ocean

The importance of the ocean to human life cannot be understated. The ocean contains 97 per cent of the world's water, covers 71 per cent of the earth's surface and is the "central player in our climate system". 45 The ocean's vastness is the "essential reason that humanity enjoys a stable, life-sustaining climate" as the ocean acts as an enormous carbon and heat sink that is capable of absorbing 1,000 times the heat capacity of the atmosphere. ⁴⁶ As well as absorbing excess heat, storing carbon and producing oxygen, the ocean is a source of sustenance and is

³⁶ Robert E. Kopp and others "Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites" (2014) 2 Earth's Future 383 at 383-384.

³⁷ IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 9.

³⁸ IPCC "Small Islands", above n 26, at 1618.

³⁹ United Nations Development Programme "Climate Change Adaptation: Kiribati" <www.adaptation.undp.org>.

⁴⁰ IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 22; Rummer and others, above n 6.

⁴¹ Rummer and others, above n 6.

⁴² Rummer and others, above n 6.

⁴³ The Economist Group: World Ocean Initiative, above n 6.

⁴⁴ Conservation International "Pacific Oceanscape" (7 June 2016).

⁴⁵ Raymond W. Schmitt "The Ocean's Role in Climate" (2018) 31(2) Oceanography Soc 32 at 32 and 38; IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 5.

46 Schmitt, above n 45, at 32.

relied on as a means of transportation and recreation.⁴⁷ The ocean provides renewable energy and income through economic opportunities.⁴⁸ The ocean is also a source of culture and spirituality. 49 This connection is exacerbated for indigenous peoples, as the ocean sits at the core of their cultures and is embodied as an integral being to care for and nurture. ⁵⁰ Despite the ocean's fundamental role in our ecosystem and an obligation to protect and conserve the marine environment arising through the United Nations Convention on the Law of the Sea ('UNCLOS'), the implications of climate change on the ocean have until recently been neglected.⁵¹ The effects of climate change on the ocean must be understood to sustain the survival of humankind. Improving ocean governance to mitigate the increasing challenges posed by climate change must become a global priority.⁵²

\boldsymbol{C} Indigenous peoples and indigenous knowledge

Though climate change is a global problem, indigenous peoples are on the frontline.⁵³ This disproportionate threat is aggravated due to indigenous peoples' "reduced social-ecological resilience — a consequence of centuries of oppressive policies imposed on them by dominant non-Indigenous societies". 54 However, indigenous peoples are also "the most historically adaptable and resilient, because of [their] ecological knowledge and community ties".55 Indigenous peoples' "ancestral roots are embedded in the lands on which they live" reflecting

⁴⁷ Rummer and others, above n 6; Borja and others, above n 4, at 1; IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 5; The Economist Group: World Ocean Initiative, above n 6; IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in

a Changing Climate", above n 2, at 5.

48 IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate",

above n 2, at 5.

⁴⁹ Masao Nakayama and Fredrick L. Ramp. *Micronesian Navigation, Island Empires and Traditional Concepts* of Ownership of the Sea (report prepared for the Fifth Congress of Micronesia, Saipan, 14 January 1974) at 244. ⁵⁰ Robert E. Johannes "The Renaissance of Community-Based Marine Resource Management in Oceania" (2002) 33 Annu Rev Ecol Syst 317 at 332.

S1 United Nations Convention on the Law of the Sea 1833 UNTS 396 (opened for signature 10 December 1982,

entered into force 16 November 1994) arts 56, 61, 145, 194 and 197.

⁵² Natalie Ban, Emma Wilson and Doug Neasloss "Strong historical and ongoing indigenous marine governance in the northeast Pacific Ocean: a case study of the Kitasoo/Xai'xais First Nation (2019) 24(4) Ecol Soc 10 at 10 citing Boris Worm and others "Impacts of biodiversity loss on ocean ecosystem services" (2006) 314 Science 787 and Christopher N. Johnson "Biodiversity losses and conservation responses in the Anthropocene" (2017) 356 Science 270.

⁵³ Randall S. Abate and Elizabeth Ann Kronk "Commonality among Unique Indigenous Communities: An Introduction to Climate Change and Its Impacts on Indigenous Peoples" in Randall S. Abate and Elizabeth Ann Kronk (eds) Climate Change and Indigenous Peoples: the search for legal remedies (Edward Elgar Books, Cheltenham, 2013) 3 at 5 and 7.

⁵⁴ D Green and G Raygorodetsky "Indigenous Knowledge of a Changing Climate" (2010) 100 Climatic Change 239 at 239.

⁵⁵ Alan Parker and others Climate Change and Pacific Rim Indigenous Nations (Northwest Indian Applied Research Institute, The Evergreen State College, Olympia, Washington, October 2006) at 2; see also Johanna Nalau and others "The Role of Indigenous and Traditional Knowledge in Ecosystem-Based Adaptation: Review of the Literature and Case Studies from the Pacific Islands (2018) 10 WCAS 851 at 852.

the notion that indigenous peoples possess an abundance of environmental knowledge due to their proximity to the natural world.⁵⁶ Owing to a strong dependence on the ocean, indigenous peoples have developed "social-ecological systems of marine resources management that rely on cultural traditions as well as an intimate, dynamic and long-term knowledge of the environment".⁵⁷ It would be naive to understate the diversity of indigenous peoples across the world, however, some key commonalities transcend indigenous communities. Indigenous peoples are united through:⁵⁸

- (1) increased vulnerability to climate change related to the location of indigenous communities;
- (2) a unique connection to the land for legal, spiritual and cultural reasons;
- (3) a history of coloni[s]ation and oppression that has potentially increased the vulnerability of many indigenous communities; and
- (4) recognition under public international law that there are basic rights owed to indigenous communities.

Indigenous culture is underpinned by a shared foundational philosophy of relationality and kinship.⁵⁹ This cosmology "views humans as a part of the interrelated web of living things",⁶⁰ and is grounded in the values of respect, sharing and reciprocity.⁶¹ Rather than viewing the environment as a resource to be exploited, the environment is an integral extension of kin, worthy of protection. The symbiotic relationship indigenous peoples cultivate with the natural environment has led to "excellent observation and interpretation of changes to the land, sea and sky".⁶² Such observation enhances the knowledge base of indigenous peoples and strengthens the communities' ability to understand, mitigate and adapt to climate change. Valmaine Toki

_

⁵⁶ James Anaya "Indigenous Peoples and the International System" in *International Human Rights and Indigenous Peoples* (Aspen Publishers, New York, 2009) 1 at 1; Garth R. Harmsworth and Shaun Awatere "Indigenous Māori Knowledge and Perspectives of Ecosystems" in John Dymond (ed) *Ecosystem services in New Zealand: conditions and trends* (Manaaki Whenua Press, Lincoln, New Zealand, 2013) 274 at 274. ⁵⁷ Vierros and others "Considering Indigenous Peoples and local communities in governance of the global ocean commons", above n 13, at 2; see also Brooks A. Kaiser and others "The Importance of Connected Ocean

Monitoring Knowledge Systems and Communities" (2019) 6 Front Mar Sci 1 at 1. ⁵⁸ Abate and Kronk, above n 53, at 4.

⁵⁹ Erika Campbell "Indigenous Relationality and Kinship and the Professionalization of Maternity Care" (2020) 1(1) TIJIH 8 at 9.

Maxine Burkett "Indigenous Environmental Knowledge and Climate Change Adaptation" in Randall S. Abate and Elizabeth Ann Kronk (eds) *Climate Change and Indigenous Peoples: The Search for Legal Remedies* (Edward Elgar Books, Cheltenham, 2013) 96 at 105 citing Fikret Berkes, Johan Colding and Carl Folke "Rediscovery of Traditional Ecological Knowledge as Adaptive Management" (2000) 10(5) Ecol Appl 1251 at 1252 and 1259.

⁶¹ Berkes, Colding and Folke, above n 60, at 1259.

⁶² Burkett, above n 60, at 99.

asserts, "indigenous peoples actively respond to changing climatic conditions and have demonstrated — with use of Indigenous knowledge systems and traditional knowledge-based practice — resilience to climate change". Despite this, the orthodox approach to ocean governance and climate change mitigation and adaptation tends to overlook a holistic analysis that values indigenous knowledge. Western approaches to ocean governance ignore the intergenerational expertise that indigenous knowledge can provide. Long before ocean management became popularised, indigenous peoples across the world had robust and sustainable mechanisms in place to care for the natural environment. Yet, indigenous peoples continue to "face ongoing challenges as they seek to assert their sovereignty and authority in marine spaces". The ocean has not escaped the blunt tool of colonisation which continues to marginalise, extinguish and ignore indigenous relationships with the marine environment. for the failure to empower indigenous perspectives in environmental governance ignores the evidence that indigenous participation and leadership leads to "more inclusive governance and planning processes, and more effective management strategies".

Climate justice and ocean justice will only be reached when indigenous peoples are empowered and equipped with the resources to be leaders in the plight to mitigate against the effects of climate change. Traditional knowledge and customary approaches to ocean governance can "promote conservation and ensure that marine benefits are reaped in a holistic, sustainable and equitable manner". A multi-faceted and holistic approach that is based on indigenous leadership is required to address the climate crisis. It is time to make way for indigenous approaches to ocean governance to "mitigate the dramatic terrestrial and marine degradation and destruction". In the Pacific region, first and foremost, the inherent mana moana held by Māori and Pacific peoples must be recognised.

⁶³ Valmaine Toki "The World Bank Dedicated Grant Mechanism and Māori Governance" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 839 at 841.

⁶⁴ See generally Macchi and others, above n 24, at 9.

⁶⁵ Parsons and Taylor, above n 3; see also Meg Parsons, Lara Taylor and Roa Crease "Indigenous Environmental Justice within Marine Ecosystems: A Systematic Review of the Literature on Indigenous Peoples' Involvement in Marine Governance and Management" (2021) Sustainability 13(8) 1 at 14.

⁶⁶ Rachel Buxton and others "Respect for Indigenous knowledge must lead nature conservation efforts in Canada" (22 April 2021) The Conversation www.theconversation.com>.

⁶⁷ Parsons, Taylor and Crease, above n 65, at 2.

⁶⁸ Virginie Tilot "Traditional Dimensions of Seabed Resource Management in the Context of Deep Sea Mining in the Pacific: Learning from the Socio-Ecological Interconnectivity Between Island Communities and the Ocean Realm" (2021) 8 Front Mar Sci 1 at 1.

⁶⁹ Melissa L. Finucane "Why Science Alone Won't Solve the Climate Crisis: Managing Climate Risks in the Pacific" (2009) 89 Asia Pacific Issues 1 at 4; see also Rakena, above n 8, at 899.

⁷⁰ Rakena, above n 8, at 899.

III Māori approaches to ocean governance in Aotearoa

Aotearoa has one of the largest ocean areas across the globe, spanning 20 times the size of its land mass, and harbouring diverse and complex habitats, ecosystems and unique species.⁷¹ Climate change and other anthropogenic pressures are placing huge stress on Aotearoa's marine environment. Successful stewardship of the ocean in Aotearoa is contingent upon incorporating tikanga Māori (the right way of doing things) and Māori approaches to ocean governance. All people have a duty to be guardians of the earth, but in Aotearoa, owing to the whakapapa (genealogy) connection of Māori to the environment stemming from historical tribal associations, Māori must be empowered to fulfil their unwavering obligation of kaitiakitanga (stewardship).⁷²

A The Māori relationship with the environment

The Māori relationship with the natural environment is integral to group identity, spirituality, culture and wellbeing. This relationship is underpinned by "a rich knowledge base — mātauranga Māori — developed over thousands of years and dating back to life in Polynesia and trans-Pacific migrations". This knowledge was accumulated through early Māori adapting to the distinct environment of Aotearoa and alleviating their vulnerabilities by "enhancing their ability to understand, monitor, plan for, and adapt to weather and climate variability". Māori are innately equipped with "a deep reservoir of ecological wisdom" that allows for adaptation and resilience. Underpinning this knowledge base is a belief that in accordance with te ao Māori, humans are not superior to the environment, rather they form part

⁷¹ Ministry for the Environment and Statistics New Zealand, above n 21, at 5; Andrew Erueti "New Zealand/ Aotearoa and the Rights of Māori to Natural Resources in Marine Areas," in Stephen Allen, Nigel Bankes and Øyvind Ravna (eds) *The Rights of Indigenous Peoples in Marine Areas* (Oxford: Hart Publishing, 2019) 237 at 237.

⁷² Mere Roberts and others "Kaitiakitanga: Māori perspectives on conservation" (1995) 2 Pac Conserv Biol 7 at 13.

⁷³ Te Aka Matua o Te Ture | Law Commission *Māori Custom and Values in New Zealand Law* (NZLC SP9, 2001) at [193] citing Joseph Williams *He Aha Te Tikanga Māori* (unpublished paper for the Law Commission, 1998) 20; see also Eilis Donnelly "The Protection of Māori Knowledge and Culture in the Proposed Kermadec Ocean Sanctuary Bill" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 693 at 693.

⁷⁴ Harmsworth and Awatere, above n 56, at 274.

⁷⁵ Darren NT King, A. Skipper and W. B. Tawhai "Māori environmental knowledge of local weather and climate change in Aotearoa - New Zealand" (2008) 90 Climatic Change 385 at 386.

⁷⁶ Jemima Jamieson "The role of Indigenous communities in the pursuit of sustainability" (2010) 14 NZJEL 161 at 162.

of the ecosystem, related through whakapapa connections.⁷⁷ Further, to Māori, "the sea is often considered to be the source and foundation of all life. Islands are fish drawn up from the water, and people evolved from amphibious beginnings".⁷⁸ The desecration of the natural environment, including the ocean, correlates to an erosion of Māori cultural and spiritual wellbeing.⁷⁹ It is of utmost importance to conserve the natural environment, to honour the mahi (work) of tūpuna (ancestors) so that it may remain for future generations.⁸⁰ This relationship and corresponding obligation to protect and preserve the environment is also common to indigenous peoples in Pacific Island nations.

Tikanga Māori, the law that was carried across the ocean by Kupe from various lands in the South Pacific, arriving thousands of years ago, is the first law of Aotearoa. This system of law is underpinned by kinship — as the "revolving door between the human, physical and spiritual realms". Tikanga Māori is an accumulation of practices, beliefs and knowledge that has been gathered over generations and adapted over time. Tikanga Māori is underpinned by the following principles: mana (authority); whanaungatanga (kinship and relationships); kaitiakitanga (stewardship); utu (reciprocity); tapu (restrictions or prohibitions); whakapapa (genealogy) and manaakitanga (care). These principles are strongly interlinked. Māori are connected to the environment through whakapapa and whanaungatanga and derive mana from

 77 Toni Love "Incorporating Māori approaches to ecosystem management in marine management" (2018) 7 Māori LR.

⁷⁸ Matthew Rout and others *Māori Marine Economy: A Literature Review — Whai rawa, whai mana, whai oranga: creating a world-leading Indigenous blue marine economy* (research project of the Sustainable Seas National Science Challenge, Tangaroa Research programme, June 2019) at 19-20.

⁷⁹ Harmsworth and Awatere, above n 56, at 274; see also Donnelly, above n 73, at 694 citing Jacinta Ruru and others "Reversing the Decline in New Zealand's biodiversity: empowering Māori within reformed conservation law" (2017) PQ 65 at 65.

⁸⁰ Emma Smith "Giving greater effect to Treaty obligations in our constitution would be good for our natural environment" (2013) 6 Māori LR; Lisa Kanawa "Climate change implications for Māori" in Rachael Selby, Pātaka Moore and Malcolm Mulholland (eds) *Māori and the Environment: Kaitiaki* (Huia Publishers, Wellington, 2010) 109 at 114. This belief is common among many indigenous worldviews, see Rebecca Tsosie "Climate Change and Indigenous Peoples: Comparative Models of Sovereignty" (2013) 26 Tul Envtl LJ 239 at 244.

Joseph Williams "Lex Aotearoa: An Heroic Attempt to Map the Māori Dimension in Modern New Zealand Law" (2013) 21 Wai L Rev 1 at 2; see also Jacinta Ruru "Māori Governance of Water: Innovation in Reconciliation Agreements" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 407 at 407.

⁸² Waitangi Tribunal Ko Aotearoa Tēnei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity (Wai 262, 2011) at 5.

⁸³ Te Aka Matua o Te Ture | Law Commission, above n 73, at [72] citing Hirini Moko Mead *The Nature of Tikanga* (paper presented to Mai i te Ata Hāpara Conference, Te Wānanga o Raukawa, Otaki, 11–13 August 2000) at 3–4; see generally Hirini Moko Mead *Tikanga Māori: Living by Māori Values* (revised edition, Huia Publishers, Wellington, 2016).

⁸⁴ Edward Taihakurei Durie *Custom Law* (Treaty of Waitangi Research Unit, Research Paper, Victoria University of Wellington, 1994) at 4-7; Joseph Williams "Lex Aotearoa", above n 81, at 3; Harmsworth and Awatere above n 56, at 275.

this connection. In accordance with utu, Māori have a reciprocal relationship with the environment, and this relationship instigates the obligation of kaitiakitanga, to protect and preserve the environment. A failure to exercise kaitiakitanga will diminish the mauri (life force) and mana of the environment. To understand Māori approaches to ocean governance, it is essential to understand the underlying tikanga and mātauranga Māori that drives this relationship. As for indigenous peoples in the Pacific Islands, Māori have been kaitiaki for the moana (ocean) since time immemorial. While climate change specific strategies have not been handed down from ancestors, tikanga Māori can adapt and provides a myriad of environmental knowledge that can be modified to suit changing conditions. Returning to these approaches is necessary for the preservation of the marine environment.

B Kaitiakitanga

Kaitiakitanga is based on the notion of stewardship, particularly in relation to the natural environment. The principle of kaitiakitanga imposes an obligation on the "whānau, hapū and iwi to protect the spiritual wellbeing of the natural resources" within their rohe (territory). Kaitiakitanga is intertwined with mana, as kaitiaki are those who hold mana moana over the rohe. Through the principle of kaitiakitanga, Māori seek to maintain the balance between humans and the environment. Kaitiakitanga is exercised through manaaki (care) and rāhui (protection). Other traditional Māori manifestations of kaitiakitanga include harvesting seafood rotationally to ensure the resource can regenerate, preserving the seabed "to the extent that even a dislodged rock is returned to its original position", preventing all forms of pollution from entering into the ocean, and adhering to the laws of Tangaroa (god of the sea).

⁸⁵ Te Aka Matua o Te Ture | Law Commission, above n 73, at [195]; Robert Joseph and others, *Stemming the Colonial Environmental Tide - Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Te Piringa-Faculty of Law, University of Waikato, 2020) at 74.

⁸⁶ Eric Kwa, above n 8, at 103.

⁸⁷ Fikret Berkes "Indigenous ways of knowing and the study of environmental change" (2009) 39(4) J R Soc NZ 151 at 151-153.

⁸⁸ Jones, above n 15, at 71.

⁸⁹ Te Aka Matua o Te Ture | Law Commission, above n 73, at [163]; see also Joseph Williams "Lex Aotearoa", above n 81, at 4.

⁹⁰ Te Aka Matua o Te Ture | Law Commission, above n 73, at [163]. 'Mana moana' refers to authority derived from a connection to the ocean, see Jones, above n 15, at 69.

⁹¹ Donnelly, above n 73, at 696.

⁹² At 696 citing Rachael Selby, Pātaka Moore and Malcolm Mulholland (eds) *Māori and the Environment: Kaitiaki* (Huia Publishers, Wellington, 2010) at vii.

⁹³ Waitangi Tribunal *Report of the Waitangi Tribunal on The Motunui-Waitara Claim* (Wai 6, 1983) at 8; Waitangi Tribunal *Report of the Waitangi on The Manukau Claim* (Wai 8, 1985) at 38. For a detailed discussion

practice of rāhui remains strong. Rāhui are invoked as a temporary prohibition or a ban over an area or resource to protect and conserve that resource, prevent exploitation or degradation, and eliminate stressors to allow the area to regenerate and increase resilience to future pressures. Pahui acknowledges the mauri of the resource and the kaitiaki of the resource, the importance of preventing physical and spiritual harm to the resource, and the need to treat the resource with respect. Rāhui remain in place "until the mauri is restored through replenishment and restoration of the resource and its ecosystem on which it depends for its sustainability". Physical and spiritual harm to the resource on which it depends for its sustainability".

In Aotearoa, mātauranga Māori is essential for maintaining the health of the ocean against the challenges posed by climate change. The Māori approach to ocean governance is underpinned by a whakapapa connection to Tangaroa and an obligation to exercise kaitiakitanga to ensure that the mana and mauri of the ocean is enhanced.⁹⁷ In te ao Māori, it is of the utmost importance to preserve the health of the ocean as it is inextricably linked to sustaining the wellbeing of all life.⁹⁸

C Co-governance in Aotearoa

Shared co-governance models can operationalise Māori leadership. Empowering Māori to utilise mātauranga Māori over their taonga and environmental resources actions the obligations of partnership underpinning the Treaty of Waitangi and fulfils the commitments affirmed to indigenous peoples in the United Nations Declaration on the Right of Indigenous Peoples 2007 ('UNDRIP'). These commitments establish a widespread expectation that Māori must fulfil

about Tangaroa see Elsdon Best "Māori Religion and Mythology Part 1: Tangaroa" in *The Published Works of Elsdon Best* (A. R. Shearer, Government Printer, Wellington, 1976) 180 at 180.

Donnelly, above n 73 at 693-694; Ministry for the Environment and Statistics New Zealand, above n 21, at 55; see generally Waitangi Tribunal *Report on the Crown's Foreshore and Seabed Policy* (Wai 1071, 2004) at 25. Rāhui are employed in other spiritual contexts and in response to tragedy, such as a drowning. See generally Fiona McCormack "Rāhui: A blunting of teeth" (2011) 120 J Polyn Soc 43.

⁹⁵ McCormack "Rāhui: A blunting of teeth", above n 94, at 45.

⁹⁶ Lara Taylor, Tania Te Whenua and Bonny Hatami *Discussion Paper: How current legislative frameworks* enable customary management & ecosystem-based management in Aotearoa New Zealand — the contemporary practice of rāhui (Produced for Sustainable Seas National Science Challenge, EBM Discussion Paper, 2018) at 14.

⁹⁷ Rout and others, above n 78, at 27.

⁹⁸ Donnelly, above n 73, at 696.

⁹⁹ Iorns Magallanes, above n 15, at 301.

¹⁰⁰ Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand — Possible Ways Forward* (Sustainable Seas, Te Mata Hautū Taketake — the Māori and Indigenous Governance Centre, Te Piringa-Faculty of Law, University of Waikato, 2019) at 3; *United Nations Declaration on the Rights of Indigenous Peoples* GA Res

their inherent role as kaitiaki through equal partnership arrangements with the Crown. ¹⁰¹ Further, Māori hold customary rights and interests in the marine environment and their role in ocean governance is recognised in the Resource Management Act 1991, the Māori Fisheries Act 2004 and the Marine and Coastal Area (Takutai Moana) Act 2011. ¹⁰² While these provisions allow for the inclusion of Māori perspectives in marine management, "the overwhelming sentiment among Māori is that they do not go far enough". ¹⁰³

Modern approaches of Māori ocean governance can be realised through co-management regimes over particular marine environments. Co-governance models are utilised to recognise the mana moana of tangata whenua (indigenous people of the land) and include the establishment of Marine Protected Areas ('MPAs) and the Hauraki Sea Change — Tai Timu Tai Pari Marine Spatial Plan 2013. Co-management regimes allow Māori to exercise kaitiakitanga over the marine environment alongside local communities, government agencies and other stakeholders. Therefore, co-management models provide an integrated approach to ocean governance that combines mātauranga Māori with Western science.

1 Ecosystem-based management and tikanga Māori

EBM is an approach to marine and coastal management that is gaining popularity. ¹⁰⁵ EBM is considered "a new panacea for the alarming environmental degradation occurring globally". ¹⁰⁶ In Aotearoa, EBM is interpreted to involve co-governance structures based upon the Māori constitutional relationship and Māori representation underpinned by tikanga Māori, a holistic understanding of the ecosystem, a focus on long-term sustainability and stewardship, collaboration, clear objectives, adaptive management and monitoring. ¹⁰⁷ EBM draws parallels

^{61/295 (2007). &#}x27;Partnership' was identified to be a principle of the Treaty of Waitangi 1840 in *New Zealand Maori Council v Attorney General* [1987] 1 NZLR 641 (CA) at 667.

¹⁰¹ Pita Sharples "Indigenous Peoples' Legal Water Forum: Introduction" (paper presented to Indigenous Peoples' Legal Water Forum, Wellington, New Zealand, 28 July 2009) <www.beehive.govt.nz> as cited in Iorns Magallanes, above n 15, at 302.

¹⁰² See generally Robert Joseph and others *Tūhonohono: Tikanga Māori me te Ture Pākehā ki Takutai Moana: Project Proposal Template* (Sustainable Seas, National Science Challenges) at 3.

Referring specifically to sections 6, 7 and 8 of the Resource Management Act 1991; see also Māori Fisheries Act 2004 and the Marine and Coastal Area (Takutai Moana) Act 2011; Sharples, above n 102; Iorns Magallanes, above n 15, at 305.

¹⁰⁴ Donnelly above n 73, at 699.

Taylor, Te Whenua and Hatami, above n 96, at 2.

¹⁰⁶ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 26.

¹⁰⁷ At 27 citing Science Learn | Pokapū Akoranga Pūtaio "Looking at ecosystem-based management (EBM)" (13 October 2017) <www.sciencelearn.org.nz>; see also Judi Hewitt and others "Proposed ecosystem-based management principles for New Zealand" (2018) 11 RMLA 10 at 13.

with tikanga Māori and can be utilised as part of an integrated model for ocean governance that positions humans as "eco-centric participants who are important components of the living ecosystem". ¹⁰⁸ However, scholars have warned that EBM is not entirely congruent with tikanga Māori and have stressed the importance of ensuring tikanga Māori and other indigenous environmental knowledge and practices retain independence outside of co-management regimes. 109 Nevertheless, greater integration of EBM could "potentially allow Māori to take a more proactive role with authentic power-sharing in the management of coastal marine environments as envisaged in the Treaty of Waitangi". 110 Such an assertion is premised on tikanga Māori being positioned at the forefront of any EBM regime. Scholars suggest that the following factors must be addressed for the appropriate interaction between indigenous peoples and EBM: power, dynamics, jurisdiction, adaptive management, agency and recognition and empowerment of indigenous knowledge. 111

Through drawing threads together from EBM and tikanga Māori, co-management is celebrated as a "model that enables the differing management styles and philosophies of the indigenous group and the state to converge and strengthen each other". 112 Co-management regimes in Aotearoa have the potential to shift away from the exclusive Crown control of resources and allow Māori to reclaim rangatiratanga (sovereignty) over their rohe. However, as EBM is a Western construct, careful integration of EBM is required to avoid the risk of subordinating Māori worldviews into the Western worldview. 114

¹⁰⁸ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 29.

109 At 30; Viktoria Kahui and Amanda C Richards "Lessons from resource management by indigenous Māori in

New Zealand: Governing the ecosystems as a commons" (2014) 102 Ecol Econ 1 at 6; Shankar Aswani and others "The way forward with ecosystem-based management in tropical contexts: Reconciling with existing management systems" (2012) 35 Mar Poly 1 at 2 and 8.

¹¹⁰ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 30.

¹¹¹ Sarah-Jane Tiakiwai, Jonathan Timatanga Kilgour and Amy Whetu "Indigenous perspectives of ecosystembased management and co-governance in the Pacific Northwest: lessons for Aotearoa" (2017) 13(1) AlterNative 69 at 75; Taylor, Te Whenua and Hatami, above n 96, at 33.

¹¹² Donnelly, above n 73, at 699 citing Todd Taiepa and others "Co-management of New Zealand's conservation estate by Māori and Pakeha: a review" (1997) 24(3) Environ Conserv 236 at 239. ¹¹³ Donnelly, above n 73, at 700 citing Taiepa and others, above n 112, at 237.

¹¹⁴ Karen Scott "Does Aotearoa New Zealand Need an Oceans Policy for Modern Ocean Governance" (2021) 35(1) Ocean Yearb 273 at 300; Matthew Rout and others, above n 78, at 48.

2 Marine protected areas

A resilient ocean that can mitigate and adapt against the effects of climate change is one that is protected. Maintaining marine biodiversity is crucial to maintaining climate resilience. Marine protected areas ('MPAs') have been heralded worldwide for their protection against marine exploitation. MPAs are utilised to limit the exploitation of marine resources, facilitate 'passive restoration' and allow an area to regenerate without external pressures. Accordingly, MPAs align with the traditional Māori approach of rāhui. However, without the cautious integration of mātauranga Māori and involvement with kaitiaki, MPAs risk becoming "non-indigenous management frameworks that may sever cultural-ecological interactions that have been accumulated and held across generations", which is destructive to the connection between Māori and the marine environment.

The protection granted to MPAs varies. They range from 'no take' marine reserves that prohibit any extraction but often allow scientific research, non-extractive commercial activities and recreation, to 'multiple-use zones' where there are fewer restrictions. HPAs are primarily implemented through the Marine Reserves Act 1971, however, they can also be designated through special legislation such as the Hauraki Gulf Marine Park Act 2000. In light of this variance, though MPAs can also be used to empower Māori to exercise kaitiakitanga over a particular area, they can also be used as a vehicle for asserting Crown control to the exclusion of Māori. A shared concern for the latter has led to scholars asserting that "the creation of MPAs in New Zealand requires, as a minimum, transparency and appropriate acknowledgement of mātauranga and tikanga Māori as well inclusion of Māori as a Treaty partner". While the mainstream creation of MPAs often gets stifled by a lack of support,

¹¹⁵ IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate" above n 2, at 30.

¹¹⁶ The Economist Group: World Ocean Initiative, above n 6.

¹¹⁷ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 110; Fiona McCormack "Māori Saltwater Commons: Property, wealth and inequality" (2018) 1(1) Commoning Ethnography 9 at 8.

¹¹⁸ Paul Majurey and Paul Beverley *Tai Timu Tai Pari Sea Change Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum, Ministry for Primary Industries, Department of Conservation, Waikato Regional Council and Auckland Council, April 2017) at 117.

¹¹⁹ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 147.

¹²⁰ Kathryn Davies and others "The evolution of marine protected area planning in Aotearoa New Zealand: Reflections on participation and process" (2018) 93 Mar Poly 113 at 113.

Majurey and Beverley, above n 118 at 26.

The Hauraki Gulf Marine Park Act 2000, s 33 established the Hauraki Gulf Marine Park.

¹²³ Donnelly, above n 73, at 701.

¹²⁴ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 147.

through the practice of rāhui, Māori are demonstrating strong leadership in creating opportunities for marine environments to regenerate in the absence of human interference. 125 Māori hold extensive knowledge about kaitiakitanga and rāhui, so Māori involvement and representation at all stages of establishing and managing MPAs is integral to their success.

3 Tīkapa Moana | Hauraki Gulf | Te Moananui-ā-Toi

Tīkapa Moana | Hauraki Gulf | Te Moananui-ā-Toi is susceptible to several environmental stressors and is suffering from a decline in environmental quality and abundance of resources, leading to a degradation of the ocean's mauri. 126 To combat this desecration, The Sea Change — Tai Timu Tai Pari plan was introduced in 2013 and is intended to be a collaborative, cogovernance initiative between mana whenua and local government, reflecting the Treaty of Waitangi principle of partnership. 127 The Sea Change — Tai Timu Tai Pari project is initiated through an "aspirational plan under the Hauraki Gulf Marine Park Act 2000" ('HGMPA') and "aims to secure a healthy, productive and sustainable future for the Gulf" through adopting an integrated and innovative approach to ocean governance. 128 The HGMPA establishes the Hauraki Gulf Forum, made up of national and local government representatives, regional authorities and mana whenua. 129 Tīkapa Moana is a taonga and is "of the utmost spiritual significance to mana whenua through its rich history of settlement and use since waka first navigated its waters". 130 The project recognises the mana moana of Hauraki tangata whenua and the importance of integrating mātauranga Māori into climate responses. Along with mana whenua and local government, a stakeholder working group, made up of additional mana whenua representation, environmental and conservation experts, commercial and recreational

¹²⁵ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 110 and 113; see also Donnelly, above n 73, at 702. For a practical example of rāhui utilised for conservation at Maitai Bay, Northland, Aotearoa, see Sustainable Seas "Protecting land and sea through EBM" (video podcast, 8 April 2020) <www.sustainableseaschallenge.co.nz>.

¹²⁶ Majurey and Beverley, above n 118 at 1; Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 137.

¹²⁷ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 137, 'Mana whenua' refers to authority derived from a connection to the land, see Jones, above n 15, at 69.

¹²⁸ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 137-138; see also Hauraki Gulf Marine Park Act 2000, s 17(h).

Hauraki Gulf Marine Park Act 2000, s 16. Majurey and Beverley, above n 118, at 1.

fishers, and aquaculture, land and farming interests developed the Hauraki Gulf Marine Spatial Plan ('MSP'). 131

The importance of the Hauraki Gulf Marine Park is enshrined in the HGMPA. The Park covers 1.2 million hectares of ocean and 2,550 kilometres of coastline that projects 22 kilometres seaward. The following vision underpins the MSP: 133

He taonga tuku iho – treasures handed down from the ancestors.

Tīkapa Moana / Te Moananui-ā-Toi – the Hauraki Gulf Marine Park is vibrant with life, its mauri strong, productive, and supporting healthy and prosperous communities.

The MSP seeks to operationalise this vision through: 134

- improving the understanding of the pressures on the coastal and marine environments,
- identifying and proposing long-term solutions to improve overall health, mauri, quality and wellbeing,
- providing increased certainty for the economic, cultural and social goals of our communities in and around the Gulf, and
- ensuring that the ecosystem functions that make those goals possible are sustained.

The MSP reflects principles of EBM, namely through adopting a place-specific approach that embraces a holistic conceptualisation of the ecosystem and recognises the necessity of addressing cumulative pressures. Further, the collaborative stakeholder working group and partnership between local government and mana whenua honours the partnership underpinning the Treaty relationship. MSP recognises "the long and inseparable association, traditions and knowledge that mana whenua have with the Hauraki Gulf Marine Park — spiritually and as a community resource". This recognition flows through all aspects of the MSP. The MSP is a strong commitment to advocating for climate strategies that "enable and empower mana whenua to lead tikanga-based resource management within a broader ecosystem-based

¹³¹ Majurey and Beverley, above n 118, at 1.

¹³² At 1.

¹³³ At 1

¹³⁴ At 7

¹³⁵ Taylor, Te Whenua and Hatami, above n 96, at 28.

¹³⁶ At 28.

¹³⁷ Majurey and Beverley, above n 118, at 2.

management context". 138 The MSP is founded on the concepts of kaitiakitanga, mahinga kai, pātaka kai (replenishing the food basket), ki uta ki tai (from the mountains to the sea), and kotahitanga (unity, or in this context 'prosperous communities'). 139 Underpinning the MSP is the belief that Tīkapa Moana is a taonga that must be preserved and restored. ¹⁴⁰ Such restoration requires acknowledging the ancestral history of Tīkapa Moana by mana whenua. 141

Ngāti Whātua Ōrākei have sought to safeguard a parcel of land, Whenua Rangatira at Ōrākei and Ōkahu Bay. 142 The land constitutes a Māori Reservation, and this protection represents the oldest co-governance arrangement between mana whenua and the local government.¹⁴³ This area's terrestrial and marine environment has been degraded over time due to increasing stressors such as urbanisation and proximity to infrastructure construction, which generates heavy metal and pathogen contaminated sediment that is flooded into the moana. 144 This activity has ravaged the mana and mauri of the environment. To mitigate this damage, Ngāti Whātua Ōrākei has developed "Ko te Pūkākī", a restoration plan that encompasses prohibitions on using poisons, planting over 200,000 native plants and re-establishing decimated mussel reefs. The Ōkahu Catchment Ecological Restoration Plan employs waterway restoration, tidal creek reinstatement and removal of engineering and infrastructure. 145 These restoration plans represent co-governance arrangements that seek to integrate tikanga Māori and Western approaches to marine management to empower mana whenua to fulfil their kaitiaki obligations.

The MSP intends to encompass four levels of protected areas, including no-take marine reserves, benthic protection areas, no commercial fishing areas and Ahu Moana. 146 The MSP also encompasses the practice of rāhui. 147 The recently announced government action plan agreed to establish 11 High Protection Areas, intended to recognise the role of mana whenua

¹³⁸ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 139. ¹³⁹ Majurey and Beverley, above n 118, at 5.

¹⁴⁰ At 17 and 52.

¹⁴¹ At 17 and 52.

At 34; see also Ngā Pae o Te Māramatanga | New Zealand's Māori Centre of Research Excellence

[&]quot;Measuring the restoration of mauri and ecosystem services at Whenua Rangatira (2014)

<www.maramatanga.co.nz>.

¹⁴³ Ōrākei Act 1991, s 8(1); see also Paul Majurey and Paul Beverley, above n 118, at 34.

¹⁴⁴ Majurey and Beverley, above n 118, at 34; see generally Ministry for the Environment and Statistics New Zealand New Zealand's Environmental Reporting Series: Our marine environment 2016 (October 2016) at 48-

¹⁴⁵ Majurey and Beverley, above n 118, at 35.

¹⁴⁷ Taylor, Te Whenua and Hatami, above n 96, at 29.

as kaitiaki through the provision for customary practices, five Seafloor Protection Areas and two MPAs.¹⁴⁸ These areas are intended to be implemented through legislation by 2024 and will raise the total proportion of protected area from 6.6 per cent to 17.6 per cent.¹⁴⁹

The government action plan emphasised the commitment to: 150

... work with mana whenua to strengthen their connection with the Gulf's ecosystems and marine life because their identity and mana are connected to the lands and waters of which they are the rangatira and kaitiaki.

Provision for mana whenua to exercise kaitiakitanga is most strongly articulated through Ahu Moana, which are near-shore areas that are co-managed by mana whenua and the local community. Ahu Moana encourage a collaborative approach to restoring the marine environment for generations to come while drawing on mātauranga Māori from local kaitiaki and knowledge from local communities.¹⁵¹ This partnership recognises that both knowledge sources are necessary for the effective management of Tīkapa Moana.¹⁵² The MSP provides a vehicle for Māori to carry out their ancestral kaitiaki rights and obligations, and respects the relationship mana whenua share with the area.¹⁵³ Ahu Moana are subject to various principles and are intended to co-exist with other mechanisms including marine reserves, MPAs, and rāhui.¹⁵⁴ Ahu Moana are intended to be a responsive approach to marine management that is free from the burdens of extensive and long-winded engagement with the Crown.¹⁵⁵ Unfortunately, the government action plan has diluted the potential for Māori to exercise kaitiakitanga through Ahu Moana by reducing them to pilot studies.¹⁵⁶ Ahu Moana, as envisaged, are unlikely to deliver opportunities for mana moana to fulfil kaitiaki responsibilities for years, if not decades.¹⁵⁷

¹⁴⁸ Department of Conservation Revitalising the gulf: Government action on the Sea Change Plan. Government Strategy in response to the Sea Change — Tai Timu Tai Pari — Hauraki Gulf Marine Spatial Plan (Department of Conservation, Fisheries New Zealand, Ministry for Primary Industries, June 2021) at 5.

¹⁴⁹ Department of Conservation, above n 148, at 5.

¹⁵⁰ At 66.

¹⁵¹ Majurey and Beverley, above n 118, at 48.

¹⁵² At 48.

¹⁵³ At 49.

¹⁵⁴ At 49.

¹⁵⁵ At 17 and 119

¹⁵⁶ Sea Change Tai Timu Tai Pari Ministerial Advisory Committee Report from the Sea Change Tai Timu Tai Pari Ministerial Advisory Committee to Hon Stuart Nash Minister of Fisheries and Hon Eugenie Sage Minister of Conservation (September 2020) at 16.

¹⁵⁷ Sea Change Tai Timu Tai Pari Ministerial Advisory Committee, above n 156, at 16.

The MSP was the first of its kind in Aotearoa, and was thought to be a departure from the entrenched sectoral resource management approach. 158 The MSP has been celebrated "as an excellent example of how legislation and policy could be enhanced to support the shared aims of EBM and kaitiakitanga" while utilising tikanga based practices such as rāhui. 159 The MSP is the result of significant consultation, an iterative planning process, rigorous debate and agreement amongst stakeholders. 160 While the MSP was heralded as innovative and collaborative, the proof will be in the implementation and ongoing conservation of the area and the engagement and leadership granted to mana whenua. Despite a legislative commitment enacted 20 years ago that sought to improve the management of the area and reverse the accelerating environmental desecration, Tīkapa Moana is still in a state of despair and is facing increasing irreversible degradation.¹⁶¹ Issues that existed at the time of the enactment of the HGMPA have not been resolved, and "the pace of change is outstripping the ability of current management frameworks to respond effectively. 162 Exploitative fishing approaches are pillaging target species, disrupting seafloor ecosystems and inadvertently killing threatened species. 163 Concerns remain about the rate of sedimentation and land erosion that encourages the proliferation of mangroves into existing habitats, such as shellfish beds. 164 Progress is inhibited by a trade-off between conservation and economic development, technical constraints, high financial costs and tensions between regulatory frameworks. 165

A greater delegation of power to mana whenua alongside appropriate resourcing would stimulate proactive conservation. The role of mana whenua is integral to the success and implementation of the MSP. Though there is scope for Māori to exercise kaitiakitanga, this occurs within the confines of the co-management regime and Ahu Moana pilot studies. This does not reflect the exercise of rangatiratanga and represents a "central government reluctance to cede control to iwi and communities". ¹⁶⁶ The governance arrangement of the MSP positions

¹⁵⁸ Joseph and others "The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand", above n 100, at 139.

¹⁵⁹ Taylor, Te Whenua and Hatami, above n 96, at 31.

¹⁶⁰ At 31.

Referring to the Hauraki Gulf Marine Park Act 2000; Hauraki Gulf Forum | Tīkapa Moana State of our Gulf 2020: Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi: State of the Environment Report 2020 (February 2020) at 161.

¹⁶² At 163.

¹⁶³ At 10 and 164.

 $^{^{164}}$ At 117 and 121.

¹⁶⁵ At 11 and 163.

¹⁶⁶ Sea Change Tai Timu Tai Pari Ministerial Advisory Committee, above n 156, at16 and 17.

mana whenua as 'stakeholders', rather than co-partners, which stifles the decision-making power of Māori and solidifies Crown sovereignty. 167 UNDRIP "affirms the inherent rights of indigenous peoples, differentiating them from [other] stakeholders". 168 Therefore, greater provision of leadership and decision-making power must be transferred to mana whenua to uphold these rights and obligations.

Indigenous peoples in other nations have had greater success in co-governance arrangements where they have been premised on a government-to-government relationship between indigenous governments and national governments. Addressing the inherent power imbalance between the Crown and Māori is necessary to strengthen Māori governance and uphold a relationship that "empowers tangata whenua as rightful treaty partners". Co-governance requires more than consultation and involvement — it must reflect a true sharing of decision-making power. While the MSP provides for Māori representation in the governing decision-making body, and thus a role for mātauranga Māori alongside Western knowledge in the management of marine resources, greater devolution of control to mana moana could strengthen this relationship. The current co-governance regime requires a rebalancing of power to recognise the rangatiratanga of Māori. This is necessary to protect, conserve and enhance the ocean environment for the benefit of future generations.

IV Pacific approaches to ocean governance

Though the Pacific Islands contain 0.1 per cent of the world's total population, these peoples act as guardians for more than 10 per cent of the world's ocean. The Pacific Island region is home to 22 island nations made up of approximately 2,700 islands of varying sizes. Pacific Island nations are commonly referred to as 'large ocean states' as the land area in the region totals 90,000 kilometers but the ocean area including EEZs spans over 27 million

¹⁶⁷ Tiakiwai, Kilgour and Whetu, above n 111, at 76.

¹⁶⁸ Natalie Ban and Alejandro Frid "Indigenous peoples' rights and marine protected areas" (2018) 97 Mar Poly 180 at 180.

See generally, Tiakiwai, Kilgour and Whetu, above n 111, at 77.

Taylor, Te Whenua and Hatami, above n 96, at 32.

¹⁷¹ Iorns Magallanes, above n 15, at 309; see generally Kaiser and others, above n 57, at 3.

¹⁷² Iorns Magallanes, above n 15, at 309.

¹⁷³ Taiepa and others, above n 112, at 237.

¹⁷⁴ Sharples, above n 101.

¹⁷⁵ Conservation International "Pacific Oceanscape", above n 44.

¹⁷⁶ These nations are the Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, The Cook Islands, French Polynesia, Guam, New Caledonia, Niue, Pitcairn Islands, American Samoa, Northern Mariana Islands, Tokelau, Vanuatu and Wallis and Futuna. See Techera, above n 32, at 399.

kilometers².¹⁷⁷ The region is renowned for great biodiversity amongst marine species and is home to mostly indigenous peoples who are heavily reliant on biological resources for sustenance, livelihoods, and cultural practices.¹⁷⁸

Pacific Island nations are particularly vulnerable to the disproportionate impacts of climate change. This vulnerability is exacerbated by the low-lying nature of the region, the strong dependence of Pacific peoples on the ocean and the "centrality of traditional lifeways to basic survival in these regions". Sea level rise is the region's most imminent threat. The Pacific Island region encompasses four of the five nations in the world that are made up of low-lying atolls: Kiribati, the Republic of the Marshall Islands, Tokelau, and Tuvalu. These nations are at risk of being submerged. Pacific Island nations are also susceptible to extreme weather events, increases in drought and water shortages, coastal erosion, coral bleaching and biodiversity loss.

However, though Pacific Island nations are on the frontline of climate change, "the practices and knowledge associated with their resilience to environmental variability and unpredictability in the past suggest an adaptive capacity" that is promising. Pacific Island nations are equipped with years of intergenerational knowledge that has allowed voyaging, settlement, habitation, and resilience across diverse sites in the Pacific. The late Epeli Hau'ofa, esteemed Tongan and Fijian anthropologist, asserted "no people on earth are more suited to be guardians of the world's largest ocean than those for whom it has been home for generations". The Pacific Islands are home to ocean peoples, who are united by the "common"

¹⁷⁷ Michelle J. Devlin and others "The tropical Pacific Oceanscape: Current issues, solutions and future possibilities" (2021) 166 Mar Pollut Bul 1 at 2

possibilities" (2021) 166 Mar Pollut Bul 1 at 2.

178 See Techera, above n 32, at 342; Power and Solofa, above n 26, at 506.

¹⁷⁹ Randall S. Abate and Elizabeth Ann Kronk, above n 53, at 5 and 7.

¹⁸⁰ Rebecca Tsosie "Indigenous Peoples and Environmental Justice: The Impact of Climate Change" (2007) 78(4) U Colo L Rev 1625 at 1636.

¹⁸¹ Techera, above n 32, at 346 citing Jon Barnett and W. Neil Adger "Climate Dangers and Atoll Countries" 61 Climate Change 321 at 322; Andrew, above n 34, at 2.

¹⁸² See for example United Nations Development Programme "Climate Change Adaptation: Kiribati", above n 39.

¹⁸³ Secretariat of the Pacific Regional Environment Programme "Factsheet: Pacific Climate Change" (August 2008) <www.sprep.org>.

¹⁸⁴ McMillen and others, above n 10.

McMillen and others, above n 10; see also Cristelle Pratt and Elizabeth Brierley "Ocean Governance and the Ocean Commissioner in the Pacific" (2016) 65(1) Soc Econ Stud 133 at 133.

¹⁸⁶ Epeli Hau'ofa "Our Sea of Islands" in *We Are the Ocean: Selected Works* (University of Hawai'i Press, 2008) 27 at 37.

inheritance of a very considerable portion of the earth's largest body of water". ¹⁸⁷ The Pacific Ocean is of profound importance to the cultural, social, spiritual and economic dimensions of Pacific Island nations. ¹⁸⁸ This relationship underpins the indigenous knowledge held by Pacific peoples that over time has manifested into holistic forms of ocean management. ¹⁸⁹ Pacific Island nations' involvement in the protection of the ocean is "no less than a major contribution to the wellbeing of humanity" and is essential for the "stability of the global environment". ¹⁹⁰ The inherent mana moana held by Pacific peoples must be recognised. It is time to support and empower indigenous peoples in the Pacific to continue to develop ocean governance strategies and solutions in pursuit of climate mitigation and adaptation.

A Traditional Pacific approaches to ocean management

Pacific Island nations are highly dependent on the ocean. Climate change exacerbates the risk to Pacific communities and threatens housing, food security, freshwater resources, culture, health and wellbeing. ¹⁹¹ It is imperative that the pressures on these delicate marine ecosystems are alleviated and that building resilience in the region is prioritised. Pacific Island nations are actively seeking to enhance the strength of their marine environments to guard against imminent climate destruction. These steps include "innovating in many ways to adapt practices, develop[ing] new technologies, revisit[ing] new techniques, reinforc[ing] solidarity and exchang[ing] learning". ¹⁹² In the context of managing fisheries and marine resources, such practices include closed seasons, prohibitions, size limitations, equipment control, and quotas. ¹⁹³ Continual observation of the ocean in Pacific Island nations has led to a strong understanding of the environment. Therefore, community-based monitoring can be utilised for resilience development and can strengthen climate change adaptation strategies. ¹⁹⁴ These strategies can be supplemented by knowledge gathered from observation regarding changing weather patterns, the timing of migrations and other environmental variables that are applicable to the particular place. ¹⁹⁵ Pacific Island nations have also developed customary seasonal

Epeli Hau'ofa "The Ocean in Us" in *We Are the Ocean: Selected Works* (University of Hawai'i Press, 2008) 41 at 41.

¹⁸⁸ Tilot, above n 68, at 2.

¹⁸⁹ At 2

¹⁹⁰ Epeli Hau'ofa "Our Sea of Islands", above n 186, at 37.

¹⁹¹ Commonwealth Marine Economies Programme *Pacific Marine Climate Change Report Card 2018* (UK Government, 2018) at 1.

¹⁹² Commonwealth Marine Economies Programme, above n 191, at 2.

¹⁹³ Joel Veitayaki "Traditional marine resource management practices used in the Pacific Islands: an agenda for change" (1997) 37 Ocean & Coastal Management 123 at 124.

¹⁹⁴ McMillen and others, above n 10.

¹⁹⁵ McMillen and others, above n 10.

calendars based on changes in weather patterns that govern the timing of associated resource management events. 196 Changes in one particular environment dictate a change in another. As these observations focus on past patterns in annual variability, they provide a useful tool to measure changes in the environment that are exacerbated by climate change. 197

Unlike many nations in the West, Pacific Island nations are embedded with traditional resource management practices and have not been entirely overrun by contemporary exploitative approaches. 198 The most prominent marine conservation regime observed in the Pacific is reef and lagoon tenure. 199 Traditionally, the people of the Pacific developed strategies to guard against the depletion of fisheries.²⁰⁰ The right to retrieve resources from a particular area was controlled by a chief who "regulated the exploitation of their own marine resources". ²⁰¹ Pacific peoples have traditionally employed area and time-based restrictions to promote the recovery and resilience of marine environments.²⁰² Such practices are known as tabu in Fiji, Vanuatu and Kiribati, ra'ui in the Cook Islands and tapu in Tonga. 203 These practices align with rāhui in Aotearoa. They intend to "prohibit the use of certain resources or the access to certain areas for a certain period of time — or indefinitely — generally to ensure the renewal of resources". 204 In the Pacific Islands, they are commonly used to increase fish and seafood populations prior to harvest.²⁰⁵ In the Cook Islands, 'ra'ui mutu kore' are utilised to declare the permanent protection of a particular area. ²⁰⁶ The Aro'a Lagoon in Rarotonga has been placed under a ra'ui mutu kore for over 20 years. 207 This protection has allowed depleted marine life to regenerate. Locals estimate that there is 100 times more marine life, that new species are identified every year and that the coral is revitalised. ²⁰⁸ As illustrated here, the respect for ra'ui is enhanced with community involvement and investment in protection efforts.²⁰⁹

¹⁹⁶ McMillen and others, above n 10.

¹⁹⁷ McMillen and others, above n 10.

¹⁹⁸ Veitayaki, above n 193, at 124.

¹⁹⁹ Robert E. Johannes "Traditional Marine Conservation Methods in Oceania and their Demise" (1978) 9 Ann. Rev. Ecol. Syst. 349 at 350.

²⁰⁰ At 350.

²⁰¹ At 350.

²⁰² Vierros and others "Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy", above n 9, at 5.

²⁰³ At 7; see generally Johannes "The Renaissance of Community-Based Marine Resource Management in Oceania", above n 50.

²⁰⁴ Giraud-Kinley, above n 12, at 153.

²⁰⁵ Marae Moana "What Is Marae Moana" <www.maraemoana.gov.ck>.
206 Marae Moana "What Is Marae Moana", above n 205.

²⁰⁷ Monica Evans "Give it back to the gods: Reviving Māori tradition to protect marine life" (27 September 2019) Mongabay Series: Sea Change <www.news.mongabay.com>.

²⁰⁸ Evans "Give it back to the gods: Reviving Māori tradition to protect marine life", above n 207.

Evans "Give it back to the gods: Reviving Māori tradition to protect marine life", above n 207.

Many other customary practices have survived the colonial era and are still in operation. In Vanuatu, "legally recognised customary marine tenure systems ... allow reef custodians to control activities on their fishing grounds" and in Fiji, there are bans for seasonal harvesting that are dictated by changes in other environmental variables, such as changes in the colour of the trumpet tree. Traditional marine management systems seek to benefit the community—
"marine resources are seen as the basis of spiritual, cultural, communal, social and economic wellbeing, and therefore critical to the long-term survival of the community". Customary marine resource management systems allow for the control and management of the marine environment to ensure that it remains prosperous and healthy while also maintaining 'ecosystem integrity'. Customary marine management practices are "accompanied by strategies and resources to support sustainable use, viable livelihoods and equitable sharing of benefits". Further, employing traditional and customary practices can "provide more diverse and culturally appropriate approaches to enforcement, compliance, monitoring and restitution". Particularly appropriate approaches to enforcement, compliance, monitoring and restitution".

B Co-governance in the Pacific

Utilising traditional Pacific marine management methods strengthens the ability to remain resilient in future. The Palau Declaration on 'The Ocean: Life and Future' emphasised that the sustainable management and conservation of the ocean is only attainable through integrated management approaches. Infusing community-led strategies into ocean governance is essential for mobilising coordinated action across the region. In the context of utilising Pacific knowledge in co-management marine conservation regimes, Joel Veitayaki opined that "given the intricate knowledge that has been accumulated by the traditional societies, it would be ludicrous if contemporary users did not put it to good use". The establishment of 'Marae Moana Marine Park' ('Marae Moana') in the Cook Islands has been identified as a key strategy

²¹⁰ Vierros and others "Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy", above n 9, at 8.

²¹¹ At 8.

²¹² At 9.

²¹³ McMillen and others, above n 10.

²¹⁴ Tilot, above n 68, at 16.

²¹⁵ At 16

²¹⁶ Veitayaki, above 193, at 135.

²¹⁷ Pacific Islands Forum Secretariat "Annex B: Palau Declaration on the "The Ocean: Life and Future": Charting a course to sustainability in *Forty-Fifth Pacific Islands Forum: Forum Communiqué* (presented at 45th Pacific Island Forum, Koror, 29–31 July 2014) at [8].

²¹⁸ Veitayaki, above 193, at 134.

to address declines in ocean health and enhance ocean conservation.²¹⁹ Other large-scale marine protected areas in the region include the Phoenix Island Protected Area in Kiribati, the Lau Seascape in Fiji and the Natural Park of the Coral Sea in New Caledonia. 220

1 Marae Moana Marine Park - Cook Islands

The establishment of the multi-use Marae Moana Marine Park guarantees the protection of the entire EEZ of the Cook Islands, representing 1.9 million km² of Pacific Ocean waters and constituting the world's largest integrated ocean management system. ²²¹ Marae Moana is one of the strongest commitments to implementing the Framework for a Pacific Oceanscape in the region and seeks to combat the challenges posed by overfishing, pollution and climate change by providing "a broad framework within which to plan the conservation and sustainable use of our ocean resources". 222 Scientists have opined that the "unprecedented plan to manage the entire EEZ of the Cook Islands represents a holistic and precautionary approach that is consistent with the traditional values and customs of Cook Islanders". 223 Marae Moana seeks to conserve the marine environment as an 'ocean sanctuary' through involving the community, "thoughtful spatial planning [and], enabling the reinvigoration of traditional resource management systems, such as the designation of ra'ui areas". 224

Marae Moana is operationalised through the Marae Moana Act 2017 ('MMA') and was introduced by Prime Minister Henry Puna at the 43rd Pacific Leaders Forum in 2012.²²⁵ When introducing Marae Moana, the Prime Minister emphasised that the marine park was introduced with full support from past and present governments, traditional leaders and local communities, and that the park will promote sustainable development by balancing economic interests with the preservation of the ocean.²²⁶ The purpose of the MMA is to "protect and conserve the ecological, biodiversity, and heritage value of the Cook Islands marine environment". 227 Other purposes include providing an integrated decision-making and management framework to

²¹⁹ Trevor J Durbin "What Now, Fishgate?': Scandal, Marae Moana, and Nation Making in the Cook Islands" (2018) 30(1) Contemp Pac 1 at 1; see also Alan Friedlander "Noted scientist applauds Marae Moana" (19 November 2018) Marae Moana <www.maraemoana.gov.ck>.

²²⁰ Conservation International "Pacific Oceanscape", above n 44.

²²¹ Durbin, above n 219, at 7; Marae Moana "What Is Marae Moana", above n 205. ²²² Durbin, above n 219, at 1; Marae Moana "What Is Marae Moana", above n 205.

²²³ Friedlander, above n 219.

²²⁴ Tilot, above n 68, at 21.

²²⁵ Marae Moana Act 2017, (Cook Islands) s 3(3).

²²⁶ Marae Moana "What Is Marae Moana", above n 205.

²²⁷ Marae Moana Act 2017, (Cook Islands) s 3(1).

coordinate the efforts of stakeholders in pursuit of marine conservation, facilitating public education and research regarding Marae Moana, encouraging engagement with local communities and assisting in meeting international responsibilities.²²⁸

Marae Moana is managed by the Marae Moana Council, comprised of nine members, including the Prime Minister, the Leader of the Opposition, the President of the House of Ariki (formal body of traditional chiefs), the President of the Religious Advisory Council, two representatives from the pa enua (the Cook Islands excluding Rarotonga), as well as representatives from the private, religious and non-governmental organisation sectors of the Cook Islands. ²²⁹ The Council's core role is to approve revised versions of Marae Moana policy and the National Marae Moana spatial plan.²³⁰ The Council receives advice from a Technical Advisory Group made up of stakeholders with various interests in the marine area, including the Prime Minister, the Seabed Minerals Authority, non-governmental organisations with marine science expertise and the House of Ariki. 231 The Marae Moana Coordination Office is tasked with ensuring the Council and Advisory group have sufficient administrative resources and capacity.²³² Marae Moana also receives financial and administrative support from Conservation International. This support extends to resource and knowledge sharing and assistance in coordinating MPA efforts across the region.²³³ The importance of community participation in the development and management of Marae Moana is emphasised in the MMA, which requires information exchange, consultation, recognition of culture and traditions, shared ownership of responsibility and equitable access to opportunities within decisionmaking processes.²³⁴ The MMA also encompasses the principles of EBM through s 5(h) which legislates that an EBM approach must be utilised in the "management of natural resources that aims to sustain the health, resilience, and diversity of ecosystems of species, while allowing for sustainable use by humans". 235

²²⁸ Marae Moana Act 2017, (Cook Islands) s 3(2).

²²⁹ Marae Moana Act 2017, (Cook Islands), s 9(2).

²³⁰ Marae Moana Act 2017, (Cook Islands), s 10.

²³¹ Marae Moana "What Is Marae Moana", above n 205.
²³² Marae Moana "What Is Marae Moana", above n 205.

²³³ Conservation International "Marae Moana: Cook Islands Marine Park" <www.conservation.org>.

²³⁴ Marae Moana Act 2017, (Cook Islands) s 5(d).

²³⁵ Marae Moana Act 2017, (Cook Islands), s 5(h).

Marae Moana seeks to manage competing interests within the area through simultaneously "harnessing the wealth of the sea and safeguarding the ocean". 236 Through marine spatial planning, Marae Moana proposes multi-use zones that are designated for particular activities.²³⁷ These zones are allocated in accordance with the desires of the local community and the national government.²³⁸ Designated areas include "no-anchoring" zones to protect delicate reefs, marine sanctuaries, customary fishing areas, tourism areas, traditional ra'ui areas and areas for extractive activity, including seabed mining. ²³⁹ Despite permitting seabed mining and commercial fishing in some areas, the MMA asserts that any economic activities must be consistent with the purpose of the Act.²⁴⁰ Marae Moana includes traditional MPAs that are located around each of the 15 Cook Islands and extend 50 nautical miles seaward. 241 These zones "protect the pelagic, benthic, coral reef, coastal and lagoon habitats of Marae Moana" and prohibit seabed mining and large-scale commercial fishing in this area.²⁴²

Issues with capacity and stakeholder engagement have been identified as challenges impeding the implementation of Marae Moana. 243 While Marae Moana is founded on ideals of national participation, inclusivity and collaboration, in reality, much of the decision-making power is held by the Coordination Office which sits under the direct authority of the Prime Minister's Cabinet.²⁴⁴ This limits the input of the community and increases the influence wielded by the government.²⁴⁵ Jacqueline Evans, the founding director of Marae Moana has asserted that this power and control dynamic causes the Cook Islands to be 'highly vulnerable' to the desires of a select few individuals.²⁴⁶ Further, limited public engagement in the planning stages generated an early lack of support and scepticism amongst communities that was heightened by minimal government communications regarding the purpose and function of Marae Moana.²⁴⁷ These hurdles have been partially overcome by strong perseverance to conduct comprehensive

²³⁶ United Nations "The Cook Islands — 'Ocean Wealth'" (video podcast, 24 December 2014)

<www.maraemoana.gov.ck>. ²³⁷ Marae Moana Act 2017, (Cook Islands), s 21.

²³⁸ Marae Moana "What Is Marae Moana", above n 210.

²³⁹ Marae Moana "What Is Marae Moana", above n 210.

²⁴⁰ Marae Moana "Marine Park Map" <www.maraemoana.gov.ck>; Marae Moana Act 2017, (Cook Islands) s

Marae Moana Act 2017, (Cook Islands), s 24(1).

²⁴² Marae Moana Act 2017, (Cook Islands), s 24(2).

²⁴³ United Nations "Marae Moana — Cook Islands Marine Park", above n 236.

²⁴⁴ Tilot, above n 68, at 13.

²⁴⁵ At 13; Durbin, above n 219, at 2.

²⁴⁶ Jacqueline Tepaeru Evans "Political Ecology, Structural Adjustment and Coral Reef Change in the Cook Islands, a Micro-State" (Master of Arts Thesis, University of Hawai'i, 2006) at 108 as cited in Durbin, above n 219, at 9.

247 Durbin, above n 219, at 4-5.

nationwide consultation, which generated support from the House of Ariki, the opposition and the public.²⁴⁸ The Cook Islands government also has a record of allegedly acting unilaterally, lacking transparency and failing to meaningfully consider the desires of the community.²⁴⁹ This threat is consistent across the region as it has been observed in some Pacific Island nations that some traditional rights holders have "become passive observers to government officials who make all the resource management decisions".²⁵⁰ Marae Moana attempts to change this and facilitate greater coordination between government aspirations and the community's actions through the establishment of the Council and Technical Advisory Group and greater information sharing.²⁵¹

Controversy also exists surrounding whether seabed mining should be permitted within Marae Moana. Marae Moana encompasses posits of manganese nodules which are invaluable for steel production and are used in new generation batteries. These resources could be instrumental in gaining financial security to pursue further climate change adaptation strategies, but the extraction could be extremely destructive to the seafloor ecosystem. Despite widespread community hostility to seabed mining, Jacqueline Evans, was hastily dismissed from her role after supporting a 10 year moratorium on seabed mining across the region proposed by the Fijian government. This indicates that the management of Marae Moana is top-down heavy and does not always reflect the will of the community. Evans' dismissal further entrenched a belief that conservation may not be the main pillar of Marae Moana. Members of the Marae Council have reported feeling disappointed at the lack of transparency and genuine consultation undertaken in the implementation phase, noting that "some of its staunchest supporters [have begun] to lose faith". As in Aotearoa, the relationship between the government and communities must be rebalanced to provide communities with greater decision-making power. This would ensure that decisions are made in accordance with the aspirations of traditional

²⁴⁸ Durbin, above n 219, at 7; United Nations "Marae Moana — Cook Islands Marine Park", above n 236.

²⁴⁹ Monica Evans "Will a massive marine protected area safeguard Cook Islands' ocean? (19 September 2019) Mongabay Series: Sea Change <www.news.mongabay.com>; Durbin, above n 224, at 12.

²⁵⁰ Veitayaki, above 197, at 134.

²⁵¹ Monica Evans "Will a massive marine protected area safeguard Cook Islands' ocean?" (19 September 2019) Mongabay Series: Sea Change <www.news.mongabay.com>.

²⁵² Evans "Will a massive marine protected area safeguard Cook Islands' ocean?", above n 249.

Evans "Will a massive marine protected area safeguard Cook Islands' ocean?", above n 249.

²⁵⁴ Monica Evans "Cook Islands MPA leader fired after supporting seabed mining freeze" (15 October 2019) Mongabay Series: Sea Change <www.mongabay.com>; Tilot, above n 68, at 3.

²⁵⁵ Evans "Cook Islands MPA leader fired after supporting seabed mining freeze", above n 254.

²⁵⁶ Evans "Cook Islands MPA leader fired after supporting seabed mining freeze", above n 254.

customary rights holders and would promote the protection and preservation of Te Moana-nui-a-Kiwa.

V Pacific regional commitments

Nations in the Pacific region have made several national, regional, and international commitments to protect the ocean. These commitments include the ratification of regional instruments such as the Pacific Islands Regional Ocean Policy, the Pacific Plan, and the Pacific Oceanscape, as well as supporting the Pacific Framework for Action on Climate Change, issuing the Palau Declaration on 'The Ocean: Life and Future' and the 'Pohnpei Ocean Statement: A Course to Sustainability' and committing to the 2030 Agenda and the Sustainable Development Goals. These strategies aim to "build capacity and resilience in the region to deal with the risks and impacts of climate change".

A Pacific Islands Regional Ocean Policy and the Framework for Integrated Strategic Action

The Pacific Islands Regional Ocean Policy ('PIROP') is a comprehensive ocean policy that was adopted by the Pacific Island Forum Leaders in 2002.²⁶⁰ PIROP intended to maintain a "healthy ocean that sustains the livelihoods and aspirations of the Pacific Island communities".²⁶¹ PIROP is underpinned by a collective goal to "ensure the sustainable use of the Pacific Ocean and its resources by Pacific peoples and external partners".²⁶² PIROP recognises that "the ocean is a transboundary and dynamic resource", "threats to the oceans

²⁵⁸ Secretariat of the Pacific Regional Environment Programme *Pacific Islands Framework for Action on Climate Change 2006-2015* (endorsed at the 36th Pacific Islands Forum, Papua New Guinea, 25-27 October 2005); Pacific Islands Forum Secretariat "Annex B: Palau Declaration on the "The Ocean: Life and Future", above n 217; Pacific Islands Forum Secretariat "Annex 3: Pohnpei Ocean Statement: A course to sustainability" in *Forty-Seventh Pacific Islands Forum: Forum Communiqué* (presented at 47th Pacific Island Forum, Pohnpei, 8-10 September 2016); Pacific Islands Forum Leaders *Pacific Roadmap for Sustainable Development* (endorsed at the 48th Pacific Islands Forum, Apia, 5-8 September 2017).

²⁵⁷ Pratt and Brierley, above n 185, at 133.

²⁵⁹ Techera, above n 32, at 346 citing Barnett and Adger, above n 181, at 356.

The Pacific Island Forum is a political body that includes Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. See Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action" (Marine Sector Working Group, Council of Regional Organisations in the Pacific, Pacific Islands Forum Secretariat, 2005) at 2.
Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated

Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action", above n 260, at 5.

²⁶² Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action", above n 260, at 5.

long term integrity are increasing in number and severity" and "sustainable economic and social development in the region is dependent on the wise use of the ocean and its resources". ²⁶³

PIROP seeks to achieve the following objectives: ²⁶⁴

- improve our understanding of the oceans;
- sustainably develop and manage the use of ocean resources;
- maintain the health of the ocean;
- promote the peaceful use of the ocean;
- improve ocean governance; and
- create partnerships and promote cooperation.

These high-level principles instigate a 'period of reflection' for Pacific nations to consider what actions to implement to achieve PIROP's intention. The Framework for Integrated Strategic Action ('PIROF-ISA') was adopted by the Pacific Leaders Forum in 2005 and set out to operationalise the goals in the PIROP. To ensure the continued commitment to achieving the collective goals in the PIROP, the PIROF-ISA is subject to constant review by community, national, regional, and international stakeholders. The PIROF-ISA intended to implement "a regional consensus on priorities for actions to ensure improved ocean governance and sustainable use of the ocean and its resources", "a framework for regional coordination of action", "a framework for regional and institutions to use in integrating their work" and "guidance to development partners on regional priority areas requiring their support". ²⁶⁷ Unfortunately, the PIROF-ISA is undermined by a "lack of mandated leadership on coordination and an appropriate resourcing system". ²⁶⁸

²⁶³ Pratt and Govan, above n 13, at 15 citing Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action", above n 260, at 3.

²⁶⁴ Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action", above n 260, at 8.

²⁶⁵ Joel Veitayaki and Nathan Evans "The Pacific Islands Regional Ocean Policy: The Quest for Good Ocean Governance" (2004) 18 Ocean Yearb 558 at 563; see generally Laurence Cordonnery "Implementing the Pacific Islands Regional Ocean Policy: How Difficult Is It Going to Be?" (2005) 36 VUWLR 723 at 723-724.

²⁶⁶ Pratt and Brierley, above n 185, at 134.

²⁶⁷ Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action", above n 260, at 9.

²⁶⁸ Pratt and Brierley, above n 185, at 134-136.

B Pacific Plan

The Pacific Plan ('the Plan') was introduced to identify the challenges facing the Pacific region and provide guidance for future sustainable development. It was underpinned by a desire to enhance cooperation amongst Pacific nations, boost regional economic growth, and strengthen good governance and security. It was adopted by Pacific Forum Leaders in 2005 and intended to be a 'living' instrument with the ability to adapt to new challenges as they surfaced. Consequently, "this led to a multitude of high-level statements by Leaders that resulted in little on the ground action". Following a review of the Plan in 2012, Sir Mekere Morauta of Papua New Guinea concluded that the Plan was "largely an officials'-led process, reacting to events and disparate imperatives, with limited political guidance". The Plan was not 'driving regionalism' as envisaged. The Pacific Plan was subsequently replaced in 2014 by the Framework for Pacific Regionalism which "aimed to streamline the regional agenda" and ensure leaders had "high-level, political conversations on the Pacific's regional priorities". This Framework is intended to be more 'action-oriented' than the broadly ambitious Plan.

C Pacific Oceanscape

In 2009, the Republic of Kiribati introduced the 'Pacific Oceanscape' to the Pacific Leaders Forum.²⁷⁷ The vision of the Pacific Oceanscape is to "ensure a secure future for Pacific Islands based on ocean conservation and management".²⁷⁸ The Pacific Leaders Forum subsequently endorsed this in 2011 as the 'Framework for a Pacific Oceanscape' ('FPO').²⁷⁹ The FPO is intended to sit alongside the PIROP to reinforce its sentiment and instigate "action and political will to ensure the sustainable development, management and conservation of the diverse ocean and island ecosystems within the region".²⁸⁰

²⁶⁹ Techera, above n 32, at 346 citing Barnett and Adger, above n 181, at 356.

²⁷⁰ Techera, above n 32, at 346 citing Barnett and Adger, above n 181, at 356.

²⁷¹ Pratt and Brierley, above n 185, at 133.; Pratt and Govan, above n 13, at 15.

²⁷² Pratt and Brierley, above n 185, at 133.

²⁷³ At 133.

²⁷⁴ At 134.

²⁷⁵ Stephen Howes and Sadhana Sen "Another Pacific Plan, really?" (19 January 2021) DevPolicy Blog www.devpolicy.org.

Anthony Angelo "The Pacific Islands Forum 2014" (2014) 12 NZYIL 135 at 136.

Pratt and Govan, above n 13, at 53.

²⁷⁸ At 53.

²⁷⁹ Pratt and Brierley, above n 185, at 136.

²⁸⁰ At 136.

The FPO is underpinned by three objectives:²⁸¹

- 1. **integrated ocean management**, which promotes sustainable development whilst responding to Pacific aspirations and ensuring and maintaining environmental health and ecological function;
- 2. **adaptation to environmental and climate change**, to develop a better understanding of the baseline and monitoring strategies underpinning management responses; and
- 3. **liaising, listening, learning and leading**, to promote facilitative and collaborative approaches to achieve the key objectives.

Further, the FPO aims to improve ocean governance, sustainably manage ocean resources, maintain the health of the ocean, improve our understanding of the ocean, protect ocean security, and foster partnerships and cooperation.²⁸² The FPO seeks to overcome the impediments to the PIROF-ISA by introducing a new role of a Pacific/Regional Ocean Commissioner who is equipped with sufficient resources, and a Pacific Ocean Alliance/Partnership. 283 The duties of the Pacific Ocean Commissioner are to "establish a neutral broker on cross-cutting ocean issues and [be] a champion, a political advocate, for regional ocean issues that [are] not biased towards any particular interest". 284 In particular, the Commissioner is central to strengthening ocean governance, enhancing coordination and collaboration amongst the region, and measuring progress made under the FPO.²⁸⁵ These mechanisms sought to ensure high-level representation, dedicated advocacy, and regional cooperation. ²⁸⁶ The effectiveness of the FPO was initially eroded by a lack of resourcing and a lack of skilled and experienced staff.²⁸⁷ The Secretary-General of the Pacific Islands Forum was appointed as the interim Pacific Ocean Commissioner, which limited the success of implementing the FPO.²⁸⁸ However, in 2014 adequate resources were raised to operationalise a dedicated Office of the Pacific Ocean Commissioner.²⁸⁹ This instigated further action including convening an inaugural meeting with the Pacific Ocean Alliance attended by a range of ocean stakeholders to begin discussing how to safeguard the Pacific.²⁹⁰ Despite this

²⁸¹ Pratt and Brierley, above n 185, at 136 citing Pratt and Govan, above n 13, at 57.

²⁸² Pratt and Govan, above n 13, at 55.

²⁸³ At 58-59.

²⁸⁴ Pratt and Brierley, above n 185, at 138.

²⁸⁵ At 139.

²⁸⁶ Pratt and Govan, above n 13, at 58-59.

²⁸⁷ Pratt and Brierley, above n 185, at 137.

At 140; see also Office of the Pacific Ocean Commissioner Blue Pacific Ocean Report 2021: A Report by the Pacific Ocean Commissioner to the Pacific Island Forum Leaders (2021) at 135.

²⁸⁹ Pratt and Brierley, above n 185, at 140.

²⁹⁰ At 140-141.

advancement, in 2016 the Pacific Ocean Commissioner role was described as 'embryonic'— and since then, only slight progress has ensued.²⁹¹ Additionally, the Blue Pacific Ocean Report 2021 suggested that the Pacific Office Alliance was not reaching its potential.²⁹²

D Pacific Islands Framework for Action on Climate Change 2006-2015

The Pacific Islands Framework for Action on Climate Change ('PIFACC') was a regional policy instrument that was endorsed by the Pacific Leaders Forum in 2005.²⁹³ The PIFACC sought to "ensure that Pacific Island peoples and communities build their capacity to be resilient to the risks and impacts of climate change".²⁹⁴ The PIFACC required parties to implement adaptation measures, improve their understanding of climate change and contribute to global greenhouse gas reduction, among other deliverables.²⁹⁵ This policy is now succeeded by the Framework for Resilient Development in the Pacific.²⁹⁶

E Critiques of these instruments

The most recent statement from the Pacific Island Forum Leaders affirmed the regional commitment to these ocean policies.²⁹⁷ However, though these strategies have instigated regional collaboration, they are not reaching their potential. They have not been sufficient to "reverse the degradation facing the ocean" and they have not delivered on a desire to promote an integrated approach to ocean governance.²⁹⁸ Dame Meg Taylor, the first Pacific Ocean Commissioner, recently remarked that despite the 'plethora' of ocean policies in the Pacific, the delivery on these commitments has been 'weak' and "siloed practices still prevail".²⁹⁹ Scholars have criticised that "the current commitments adopted by [Pacific Island] leaders are very broad and open-ended" and are largely disconnected from each other.³⁰⁰ There is a division between high-level policy made by national governments and on the ground action

²⁹¹ Pratt and Brierley, above n 185, at 143.

²⁹² Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 188-189.

²⁹³ Secretariat of the Pacific Regional Environment Programme "Pacific Islands Framework for Action on Climate Change 2006-2015", above n 260, at 4.

²⁹⁴ Secretariat of the Pacific Regional Environment Programme "Pacific Islands Framework for Action on Climate Change 2006-2015", above n 260, at 4.

²⁹⁶ Secretariat of the Pacific Regional Environmental Programme *Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) 2017-2030* (2016).

²⁹⁷ Pacific Islands Forum "Pacific Islands Forum Leaders Ocean Statement 2021" (statement, 22 March 2021). ²⁹⁸ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 21; Power and Solofa, above n 26, at 509.

²⁹⁹ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 19.

³⁰⁰ Kwa, above n 8, at 116.

undertaken by communities. The "present and future of Pacific Island states and territories are planned and decided on" at the national level, and scholars have been sceptical that these highlevel discussions capture the nuances of action occurring on the ground. Further, there is a fear that community level efforts often go unnoticed because they do not conform to the rigid confines of high-level decision-making. ³⁰¹ These two silos require reconnection.

The current policy seascape in the Pacific is scattered and full of various iterations of highlevel instruments seeking to achieve a similar goal. The Blue Pacific Ocean Report 2021 concluded that the Pacific region has "a strong and working system of creating policies, space for political discussions, agreements, and settlements", however, identifying what has been achieved as a region following the introduction of these agreements is difficult. 302 Translating these commitments into 'on the ground action' has proven to be challenging, particularly in the absence of requirements, methods, and tools to implement them. ³⁰³ The FPO, in particular, has been criticised for "lack[ing] the visibility and profile at the national and sub-national level to really affect change". 304 Further, a "lack of political will, the absence of integrated decisionmaking processes, [and] limitations on available expertise and institutional capacity" have been identified as challenges to implementing regional aspirations.³⁰⁵

Weak monitoring and reporting mechanisms have inhibited the potential for progress to be made and have failed to provide a consolidated picture of how the region is tracking towards achieving the various commitments.³⁰⁶ The current instruments are dependent on strong leadership, regional cooperation, and considerable resources that are not bountiful. 307 The pursuit of upholding the vision of the FPO continues to be undermined by a lack of human and financial capital as highlighted by the delay to appoint a Pacific Ocean Commissioner following the introduction of the FPO. This lack of leadership has been partially remedied since the role was subsumed into the duties of the Secretary-General of the Pacific Islands Forum.³⁰⁸ Additionally, a lack of financial resources continues to curb progress and burden the region.³⁰⁹

³⁰¹ Hau'ofa "Our Sea of Islands", above n 188, at 27.

³⁰² Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 150.

³⁰³ Joanna Vince and others "Ocean governance in the South Pacific region: progress and plans for action" (2017) 79 Mar Poly 40 at 41 and 43. 304 At 41 and 44.

³⁰⁵ Power and Solofa, above n 26, at 515.

³⁰⁶ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 180.

³⁰⁷ Pratt and Govan, above n 13, at 7-8.

³⁰⁸ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 135.

³⁰⁹ Pratt and Brierley, above n 185, at 141; Power and Solofa, above n 26 at 514.

In 2013, Eric Kwa remarked that "so far, the regional response to climate change has been sporadic and noncommittal".³¹⁰ He then went on to recommend the practical implementation of regional commitments through an "integrated climate change policy and regulatory framework in each nation" and that Pacific nations "must recognise, promote and apply customary law and practises to help indigenous people cope with climate change".³¹¹

VI Required action

The 2050 Strategy for the Blue Pacific Continent ('the Strategy') is currently being developed and intends to "reinforce the prioritisation of ocean and climate change considerations into all regional and national policies and plans". The Strategy will aim to place a strong emphasis on regionalism in developing long-term approaches to climate change. Additionally, the year 2021 marks the beginning of the United Nations Decade of Ocean Science for Sustainable Development. This proclamation represents "one of the most robust acknowledgements by the international community of the key role played by traditional knowledge in ocean management". Time will tell whether these initiatives overcome the barriers that have limited their predecessors.

The current lack of progress in the region instigates the need to support nations to develop and implement domestic ocean policy in pursuit of a new regional agreement. Strengthening national ocean policies and co-governance regimes is a means of strengthening regional conservation. Across the Pacific region, fragmented and 'unambitious' ocean policies have failed to achieve integrated ocean management. Piecemeal approaches will not galvanise success. Scholars have asserted that "domestic law (a bottom-up approach) is the best vehicle to establish a workable legal framework for climate justice", however, this must be

³¹⁰ Kwa, above n 8, at 118.

At 118

³¹² Pacific Islands Forum "Pacific Islands Forum Leaders Ocean Statement 2021", above n 297; for more information see Pacific Islands Forum "The 2050 Strategy for the Blue Pacific Continent" www.forumsec.org.

³¹³ Pacific Islands Forum "Pacific Islands Forum Leaders Ocean Statement 2021", above n 297.

³¹⁴ See generally United Nations Decade of Ocean Science for Sustainable Development (2021-2030) *The Science We Need for the Ocean We Want* (IOC/BRO/2020/4, July 2020).

³¹⁵ Tilot, above n 68, at 20 referring to UNESCO-IOC *The United Nations Decade of Ocean Science for Sustainable Development (2021-2030) Implementation Plan* (IOC Ocean Decade Series 20, 2021).

³¹⁶ Power and Solofa, above n 26, at 517.

³¹⁷ Scott, above n 114, at 338.

implemented in tandem with collective international effort.³¹⁸ Overarching national instruments that establish goals, principles, roles, and responsibilities are necessary to mobilise change in the Pacific region.³¹⁹ Such national policies must be based on wide consultation with a variety of stakeholders, including government, indigenous peoples, local communities and fisheries, be underpinned by indigenous leadership and incorporate local traditions and customary approaches to ocean governance.³²⁰ Implementing domestic policies that reiterate the principles of a revitalised regional agreement will strengthen ocean protection and preservation efforts while also mediating the differences in capacity and capability of the different nations in the Pacific region.³²¹

A revitalised regional agreement is required \boldsymbol{A} Prior to the introduction of the FPO, it was recognised that:³²²

An appropriate mechanism should be established, with a broad membership, increased accountability, and adequate resources to ensure a heightened awareness and advocacy of ocean issues and priorities and better coordination to improve resource mobilisation efforts for more effective implementation.

The current policy seascape does not meet this aspiration.³²³ As has been alluded to, "maintaining weak regional ocean governance mechanisms while claiming the importance of the regional approach to ocean governance leads to nowhere". 324 A strengthening of the existing approach is necessary. One way of improving ocean governance is through domestic ocean policies and a new and improved international regional framework. To ensure that the health of Te Moana-nui-a-Kiwa is protected, a revitalised agreement must be developed and adopted by the Pacific region. The Pacific region represents a vast expanse of opportunity and more can be done to maximise the conservation of the region.³²⁵ To remedy the confusion of the numerous policy instruments currently in play, consolidating the various policies into one

³¹⁸ Rebecca Tsosie "Climate Change and Indigenous Peoples: Comparative Models of Sovereignty", above n 80,

³¹⁹ Scott, above n 114, at 338.

³²⁰ Power and Solofa, above n 26, at 518.

³²² Pratt and Govan, above n 13, at 24.

³²³ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 19.
³²⁴ Julien Rochette and others "Regional oceans governance mechanisms: A review" (2015) 60 Mar Poly 9 at

^{17. 325} Conservation International "Pacific Oceanscape", above n 44.

centralised overarching instrument is required. Such a framework must be flexible enough to adapt to various challenges but robust enough to facilitate the implementation of regional and national strategies to enhance climate change resilience.³²⁶

To be successful, a revitalised regional agreement must promote long term sustainability, facilitate an integrated and collaborative approach to ocean governance and devolve leadership to those who hold mana moana to allow for the meaningful incorporation of local indigenous knowledge. Progress towards meeting measurable targets must be monitored and activities must be appropriately resourced.

B Based on indigenous leadership and knowledge

Shared decision-making power between governments and indigenous peoples is a pre-requisite for successful ocean governance. This is time to translate a long history of ocean stewardship into effective ocean governance. Ocean governance in the Pacific region must be based on the traditional ties that Māori and Pacific Island peoples share with the ocean. They are the original guardians of the Pacific and their mana moana must be recognised and supported at the local, national and regional levels. An approach that involves these communities draws in the necessary features of Pacific and Māori culture and tradition. Through greater power sharing, community-based marine management systems, such as Tīkapa Moana and Marae Moana, can form the strong foundation of sustainable management arrangements.

The establishment of Tīkapa Moana and Marae Moana intends to shift ocean governance back into alignment with the traditional customs and practices of indigenous ancestors.³³³ However, these co-management regimes rely on strong coordinated stakeholder engagement, collaboration and meaningful participation. Co-governance is not a panacea on its own — a

³²⁶ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 191.

³²⁷ Government of the Republic of Fiji *Republic of Fii: National Climate Change Policy* (Secretariat of the Pacific Community, Suva, Fiji, 2012) at 20.

³²⁸ Kimberly H. Maxwell and others "Navigating towards marine co-management with Indigenous communities on-board the Waka-Taurua" (2020) 111 Mar Poly 1 at 1, discusses power sharing between Māori and the Crown as a pre-requisite for developing a New Zealand marine management system.

Office of the Pacific Ocean Commissioner *Our Sea of Islands, Our Livelihoods, Our Oceania: Pacific Regional Ocean Policies* (Produced by the Pacific Islands Forum Fisheries Agency and the Secretariat of the Pacific Community) at 8 and 10; Pratt and Govan, above n 13, at 59.

³³⁰ Pratt and Govan, above n 13, at 59; Office of the Pacific Ocean Commissioner "Our Sea of Islands, Our Livelihoods, Our Oceania: Pacific Regional Ocean Policies", above n 329, at 8.

³³¹ Veitayaki, above n 193, at 126.

³³² At 126.

Evans "Will a massive marine protected area safeguard Cook Islands' ocean?", above n 249.

mutual priority of conservation is necessary to navigate competing interests and boost climate resilience. 334 Meaningful engagement with indigenous peoples must surpass weak 'cogovernance' arrangements and provide for a degree of self-autonomy and leadership.³³⁵ This involves a clarification of the roles, rights, obligations and interests and addressing the power imbalance between national governments and mana moana.³³⁶ More than consultation is required to meet the aspirations of indigenous peoples and allow indigenous peoples to properly manage their resources.³³⁷ A stronger articulation of indigenous leadership in a new regional agreement would reassert the role of mana moana in the protection and preservation of the ocean and reaffirm their role as leaders in co-management regimes. Refiguring leadership structures also appropriately diffuses centralised power that can mitigate against the perils that currently inhibit inclusivity and transparency for Tīkapa Moana, Marae Moana, and other cogovernance regimes in the region.³³⁸

"Western traditions of environmental management have failed to live up to the traditional maritime heritage and indigenous knowledge systems" that are based on kinship connections, stewardship and observation.³³⁹ Therefore, ocean leadership must be derived from the mana of the indigenous peoples in the Pacific region. This leadership could revive national motivation towards action and cooperation in Te Moana-nui-a-Kiwa and formalise the commitment to ocean protection and preservation. Drawing on intergenerational knowledge passed down from ancestors provides guidance for successful ocean governance. Traditional and novel ocean governance tools such as large and locally managed areas, MPAs, sanctuaries and zone-based management can be amalgamated and utilised to promote effective ocean governance.³⁴⁰ To mitigate the degradation of the ocean, pressures to the ocean must be limited.³⁴¹ Strategies must be drawn from customary practice such as the creation and management of rahui and customary

³³⁴ Stacy D. Jupiter and others "Locally-managed marine areas: multiple objectives and diverse strategies" (2014) 20(2) Pac Conserv Biol 165 at 166 citing Derek R Armitage and others "Adaptive co-management for social-ecological complexity" (2009) 7(2) Front Ecol Environ 95 at 100. Maxwell and others, above n 328, at 2.

³³⁶ Sharples, above n 101; see also Iorns Magallanes, above n 15, at 323.

³³⁷ Iorns Magallanes, above n 15, at 321.

³³⁸ Lucia Fanning and others "Challenges to Implementing Regional Ocean Governance in the Wider Caribbean Region" (2021) 8 Front Mar Sci 1 at 12, recognised that the implications of institutional constraints in the context of implementing the Caribbean Large Marine Ecosystem include the "dominance of governmental actors in decision-making along with the consequential limited involvement of stakeholders, thereby demonstrating a lack of transparency and inclusiveness as good governance principles".

³³⁹ Michael Vincent McGinnis Ocean Governance: The New Zealand Dimension Full Report (report prepared for the Centre for the Blue Economy, 15 August 2012) at 88.

³⁴⁰ Pratt and Govan, above n 13, at 60; Office of the Pacific Ocean Commissioner "Our Sea of Islands, Our Livelihoods, Our Oceania: Pacific Regional Ocean Policies", above n 329, at 10.

³⁴¹ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 151.

marine tenure systems and cultivating carbon sinks through the planting of mangroves and seagrasses.³⁴² These strategies are already encompassed within the Pacific region and are critical for building resilience in the region. This integration, combined with indigenous leadership is likely to promote a holistic approach to ocean governance that is grounded in community values, and is therefore more likely to resonate with the community. To overcome hesitation in the community towards the implementation of Marae Moana, Sue Taei, a stakeholder from Conservation International conceptualised the marine park as a large ra'ui. 343 Framing Marae Moana in terms of traditional and indigenous resource management approaches resonated with the community and lowered scepticism towards its implementation.³⁴⁴

Increased participation from the community can also increase compliance and accountability.345 Customary marine areas are generally governed by the local community or local tribe, who can "adapt rules and regulations to resource fluctuations". 346 Therefore, compared to high-level governance structures, they are best suited to respond to the local consequences of climate change.³⁴⁷ However, a desire to integrate customary approaches to ocean governance in an overarching regional policy provokes the necessity of safeguarding these practices and recognising and respecting the different cultures present in the region.³⁴⁸ A cautious approach must be undertaken to ensure that indigenous knowledge is not assimilated and marginalised into Western management frameworks.³⁴⁹ This threat can be overcome by true power sharing and indigenous leadership.

Involving a range of stakeholders, boosting the understanding of climate change in the community and developing an integrated and collaborative approach to mitigation are essential ways of enhancing climate resilient communities. 350 Indigenous peoples have utilised customary adaptation methods embedded in local knowledge for thousands of years. Therefore,

³⁴² Secretariat of the Pacific Regional Environment Programme Blue Pacific Proposal for the UNFCCC Dialogue on Oceans and Climate Change (2020); see also Oxfam The future is here: climate change in the *Pacific* (Oxfam briefing paper, 2009) at 27-28. Durbin, above n 219, at 6.

³⁴⁴ At 6.

³⁴⁵ McGinnis and others, above n 339, at 86.

³⁴⁶ McMillen and others, above n 10.

³⁴⁷ McMillen and others, above n 10.

³⁴⁸ Tsosie "Climate Change and Indigenous Peoples: Comparative Models of Sovereignty", above n 80, at 257. ³⁴⁹ Iorns Magallanes, above n 15, at 319; see also Gail Tipa and Richard Welch "Comanagement of Natural Resources: Issues of Definition from an Indigenous Community Perspective" (2006) 42(3) J Appl Behav Sci

³⁷³ at 375. Sinucane, above n 69, at 7.

bottom-up approaches that incorporate indigenous governance structures and are led by the community are likely to be most effective in the plight against climate change.³⁵¹ A stronger articulation of indigenous leadership combined with stronger recognition of indigenous knowledge and practices is required in a revitalised regional agreement to overcome the disconnection between policy and action.

C Coordination and cooperation in the region

Climate change is a global problem.³⁵² Therefore, coordination and cooperation must underpin regional action to extinguish the current silos in operation.³⁵³ A lack of coordination and cooperation intensifies the vulnerability of the ocean in the face of climate change and the communities that depend on the ocean as a source of culture, economic security and social stability.³⁵⁴ Regional policy must 'consciously connect' with national activities.³⁵⁵ An inclusive approach based on trans-national collaboration is imperative to facilitate regional success in climate change mitigation and adaptation. The importance of regional participation cannot be understated — collective effort is essential.³⁵⁶ Global and regional cooperation is emphasised in article 197 of the UNCLOS, which articulates that:³⁵⁷

States shall cooperate on a *global* basis, and as appropriate, on a *regional* basis, directly or through competent regional organisations, in formulating and elaborating international rules standards and recommended practices and procedures consistent with this Convention, for the *protection* and *preservation* of the marine environment, taking into account characteristic regional features.

A regional approach is necessary as the challenge climate change poses to the ocean does not respect geo-political boundaries between Pacific Island nations.³⁵⁸ 'Good' ocean governance is contingent on coordination at the local, national, regional and global level.³⁵⁹ The importance

³⁵¹ The World Bank *Cities, Sea, and Storms: Managing Change in Pacific Island Economies — Volume IV: Adapting to Climate Change* (draft report VL-27449, November 2000) at 30.

³⁵² Tsosie "Climate Change and Indigenous Peoples: Comparative Models of Sovereignty", above n 80, at 251.

³⁵³ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 167.

³⁵⁴ Power and Solofa, above n 26, at 514.

³⁵⁵ Pratt and Govan, above n 13, at 29.

³⁵⁶ At 63; see also Secretary-General Dame Meg Taylor "Opening Remarks to the 2017 Pacific Update" (Japan-Pacific ICT Multipurpose Theatre, University of the South Pacific, Laucala Campus, 20 June 2017).

³⁵⁷ United Nations Convention on the Law of the Sea, above n 51, art 197.

Pratt and Govan, above n 13, at 7-8; Power and Solofa, above n 26, at 514; see also McGinnis and others, above n 339, at 17.

³⁵⁹ International Waters Learning Exchange & Resource Network "4. Regional Ocean Governance" <www.iwlearn.net>.

of regional collaboration has also been emphasised in the 2030 Agenda, ³⁶⁰ and in the context of Large Marine Ecosystems ('LME'), which are ocean spaces that exceed 200,000 km² and often span multiple national jurisdictions. ³⁶¹ Local LME governance requires community-based management as well as indigenous partnership, national LME governance requires coordination between government and stakeholders at the local level and regional LME governance requires cooperation between nations. ³⁶² The protection of the ocean is an overwhelming task and ecosystems cannot be compartmentalised in accordance with national jurisdiction. The Pacific region requires successful integration at all levels of ocean governance. ³⁶³ Further, "no single country in the Pacific can by itself protect its own slice of the oceanic environment: the very nature of that environment prescribes regional effort". ³⁶⁴ Adopting a regional approach addresses the implications of the ocean transcending political, jurisdictional and cultural boundaries. ³⁶⁵ The collaboration and unity that is already prevalent in the Pacific region strengthens the potential to effectively govern, protect, manage and sustainably develop Te Moana-nui-a-Kiwa and indicates that nations in the Pacific region "can make a difference by working together". ³⁶⁶

E Measurable targets, monitoring and reporting

Prescribed action and clarification of the obligations placed on national communities is necessary to mobilise greater action. High-level aspirations need to be translated into national policies and plans of action.³⁶⁷ The absence of measurable targets hinders momentum and progress. Therefore, the clarification of the roles and responsibilities is required in a new regional agreement.³⁶⁸ The creation of new targets requires indigenous involvement at every governance level, from identifying objectives to participating in action planning and implementing targets in domestic policy.³⁶⁹ This will also have the effect of catalysing

³⁶⁰ United Nations General Assembly *Transforming our world: the 2030 Agenda for Sustainable Development* GA Res A/Res70/1 (2015).

³⁶¹ International Waters Learning Exchange & Resource Network "What are Large Marine Ecosystems (LMEs)?" <www.iwlearn.net>.

³⁶² Natalie Degger and others "Navigating the Complexity of Regional Ocean Governance Through the Large Marine Ecosystems Approach" (2021) Front Mar Sci 1 at 2.

³⁶³ See generally Robin Mahon and Lucia Fanning "Regional ocean governance: Polycentric arrangements and their role in global ocean governance" (2019) 107 Mar Poly 1.

³⁶⁴ Epeli Hau'ofa "The Ocean in Us", above n 187, at 50

³⁶⁵ McGinnis and others, above n 339, at 17.

³⁶⁶ Commonwealth Marine Economies Programme "Pacific Marine Climate Change Report Card 2018", above n 191, at 15; Degger and others, above n 362, at 12.

³⁶⁷ Power and Solofa, above n 26, at 509.

³⁶⁸ Vince and others, above n 303, at 41 and 44.

³⁶⁹ Jupiter and others, above n 334, at 172.

engagement and accountability amongst communities as "communities are fundamental participants in any attempt at ocean management and are heavily vested in the outcomes". The importance of measurable objectives was emphasised by stakeholders during the development phase of Marae Moana who asserted that high-level policies are irreconcilable with measuring success and instead, including measurable objectives is necessary for assessing whether Marae Moana is achieving its purpose. Adopting a more robust approach to incorporating indigenous knowledge into ocean governance can "enhance legitimacy, provide enforcement capacity and clarify and assert access rights".

Many marine areas in the Pacific region operate in the absence of formal reporting mechanisms and documentation.³⁷³ This results in a poor understanding of the progress towards meeting aspirational targets and the overall protection and preservation of the ocean. Many nations face insurmountable pressures to meet numerous reporting requirements for the array of policy instruments operating in the region.³⁷⁴ Consolidating monitoring and reporting requirements into one centralised obligation will streamline this process and exacerbate the burden on nations. A readily accessible and central reporting mechanism needs to be adopted to monitor progress through regional and domestic policy.³⁷⁵

F Resourcing and capacity building

A revitalised regional policy agreement must consider the human and financial resources available to ensure that the policies can actually be implemented in light of the region's capability.³⁷⁶ The successful implementation of a new regional policy is contingent on the existence of "a certain set of political and economic conditions" as prerequisites for progress in translating high-level policy into national action plans.³⁷⁷ Such capacity should match the level of aspiration in the proposed policy. A lack of resources currently burdens the region and

³⁷⁰ Vince and others, above n 303, at 41 and 44.

³⁷¹ Marae Moana *Cook Islands Marine Park: Legal Analysis Workshop* (Crown Beach Resort, 5 March 2014) at 10.

Jupiter and others, above n 334, at 172.

³⁷³ At 175

³⁷⁴ Pratt and Govan, above n 13, at 50.

³⁷⁵ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 150; Office of the Pacific Ocean Commissioner *Framework for a Pacific Oceanscape: Progress Report Card 2016* (2016).

³⁷⁶ Rochette and others, above n 324, at 17.

³⁷⁷ Power and Solofa, above n 26, at 515.

stifles progress towards fully implementing regional policies at the national level.³⁷⁸ Further, "this is compounded by the rapid increase in the number of arrangements Pacific Island countries are expected to participate in".³⁷⁹ To overcome this downfall, "development and implementation of basic but robust management systems", "significant education and awareness-raising" and "enforcement at all levels — from government to individual communities" is required.³⁸⁰

Sourcing long-term sustainable financing is essential to mobilising resilience in the region.³⁸¹ Pacific Island nations have previously received financial assistance from the United Nations Environment Program, the Global Environment Facility, the United Nations Development Program and The World Bank.³⁸² Detailed financial support options have been explored in relation to Marae Moana and include arrival/departure taxes, continued development of sustainable fisheries, an independent conservation trust fund, compensation fees for environmentally-impactful development, external donors and tourism taxes.³⁸³ Adopting a range of funding sources is recommended to minimise dependence and vulnerability, while also promoting progress in the region.³⁸⁴ A regional agreement must incorporate guidance on how to source sustainable funding, as has been provided in relation to Marae Moana, in order to catalyse activity in the region.

A lack of expertise and capacity generates a challenge for nations to mobilise action. Therefore, it is imperative to develop "long term capacity building which goes beyond the scope of donor funded projects". Many national agencies are considerably "under-resourced with respect to the technical capacity to support institutional arrangements for multi-sectoral management of resource use and the environment". Significant human resources are required to sustain

³⁷⁸ Andrew Wright, Natasha Stacey and Paula Holland "The cooperative framework for ocean and coastal management in the Pacific Islands: Effectiveness, constraints and future direction" (2006) 49 Ocean & Coastal Management 739 at 757.

³⁷⁹ At 757.

Johanna E. Johnson and others "Impacts of Climate Change on Marine Resources in the Pacific Island Region" in Lalit Kumar (ed) *Climate Change and Impacts in the Pacific* (Springer Climate, 2020) 359 at 389. ³⁸¹ Pratt and Brierley, above n 185, at 141.

³⁸² Parker and others, above n 55, at 57.

³⁸³ Conservation International Sustainable Financing Mechanism For Ridge to Reef Approaches and Protected Area Management within Marae Moana — An Assessment of options (report produced for the Cook Islands Marae Moana Coordination Office and National Environmental Service, March 2020) at 6.

³⁸⁴ At 83.

³⁸⁵ Degger and others, above n 362, at 12.

³⁸⁶ Power and Solofa, above n 26, at 509.

ocean governance and capacity must be elevated at the regional, national and local levels.³⁸⁷ Scholars have asserted that the most effective way to mobilise action under an aspirational agreement is to require regions to devote resources to the ongoing implementation and management of the policy.³⁸⁸ This could include establishing the role of a national representative that could be attached to an existing environmental body.³⁸⁹ This role could be designated to translating regional commitments into national actions, setting targets, monitoring and reporting progress, overseeing co-governance regimes, coordinating and negotiating between various stakeholders whilst being ultimately accountable to the Pacific Ocean Commissioner. 390 However, such aspirations are based on the assumption that capacity currently exists in the community. To ensure nations and communities continue to build institutional capacity, education, training and community workshops in the region must be prioritised to ensure "the continuity of marine understanding and replenishment of knowledge" and to cultivate a new era of ocean stewards.³⁹¹ This education could be facilitated through such an office. Further, strengthening the role of the Pacific Ocean Commissioner and the Pacific Ocean Alliance will lessen the burden on smaller, poorly resourced nations in the region allowing nations to pool resources and collaborate.³⁹²

G Ecosystem-based management

A revitalised regional agreement that integrates EBM alongside indigenous approaches to ocean governance is likely to galvanise greater success and support. While the two concepts are markedly distinct, the underlying principles intersect, allowing for an opportunity to reconcile and utilise both world views to strengthen ocean governance. EBM is a vehicle for implementing integrated ocean management approaches, which has failed to adequately be introduced in the Pacific region. EBM and customary approaches to ocean governance conceptualise the environment as a continuum, where there is no divide between terrestrial and marine ecosystems. EBM rejects sectoral management approaches and instead requires the

³⁸⁷ McGinnis and others, above n 339, at 87.

³⁸⁸ Power and Solofa, above n 26, at 517.

³⁸⁹ At 517.

³⁹⁰ At 517; McGinnis and others, above n 339, at 87.

³⁹¹ Secretariat of the Pacific Regional Environmental Programme "Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management", above n 296, at 27; Pratt and Govan, above n 13, at 55; McGinnis and others, above n 339, at 87.

³⁹² Pratt and Govan, above n 13, at 30.

³⁹³ Shankar Aswani "Socioecological Approaches for Combining Ecosystem-Based and Customary Management in Oceania" (2011) 845385 J Mar Biol 1 at 1-2 and 10-11.

³⁹⁴ Office of the Pacific Ocean Commissioner "Blue Pacific Ocean Report 2021", above n 288, at 168.

³⁹⁵ Aswani, above n 393, at 10.

management of the ocean to be undertaken holistically, considering the ecosystem in its entirety which recognises humans as part of that system.³⁹⁶ Cumulatively, adherence to these principles enables a shift to unified, integrated management frameworks rather than fragmented governance approaches.³⁹⁷

EBM principles can be employed to supplement and support indigenous knowledge as the principles of EBM are analogous to practices already occurring in local communities. Incorporating EBM tools such as coral and wetland conservation and restoration will enhance ecosystem-based adaptation, involve the community, alleviate external pressures and draw threads together from EBM holistic principles and indigenous knowledge to boost the region's resilience. By acknowledging the two independent worldviews, indigenous knowledge and EBM can be utilised equitably, rather than risking customary knowledge being assimilated into an EBM dominant framework. The successful inclusion of EBM principles can act as a 'bridge' to connect indigenous and Western worldviews and assist in coordinating the two in order to provide a strong base for successful ocean governance. A revitalised regional agreement must consciously incorporate EBM principles through promoting meaningful collaboration, alleviating the power imbalance between indigenous and Western worldviews and be underpinned by a commitment to integrated and adaptive ocean governance.

H Recognising the Pacific Ocean as a legal entity

In addition to developing a revitalised regional agreement to operationalise national ocean policies, recognising the Pacific Ocean as a legal entity would strengthen the obligation to protect and preserve Te Moana-nui-a-Kiwa. Work is underway in the Pacific region to grant legal personhood to the Pacific Ocean. This recognises the importance of the kinship relationship between the ocean and the people of the Pacific region. Despite many obligations to protect the ocean, "the dominant anthropocentric values, and legal and economic

³⁹⁶ Love, above n 77; Scott, above n 115, at 332; Taylor, Te Whenua and Hatami, above n 96, at 2.

³⁹⁷ Maxwell and others, above n 328, at 1.

³⁹⁸ IPCC "Summary for Policymakers: Special Report on the Ocean and Cryosphere in a Changing Climate", above n 2, at 30.

³⁹⁹ Maxwell and others, above n 328, at 4.

⁴⁰⁰ Rout and others, above n 78, at 48 and 53.

⁴⁰¹ At 48 and 50.

⁴⁰² See generally United Nations "The Rights of the Pacific Ocean as a Legal Entity: A science based feasibility study — #OceanAction19759" <www.oceanconference.un.org>; Victor David "Towards a Regional Convention on the Rights of the Pacific Ocean as a Legal Entity: A Voluntary Commitment to the UN Ocean Conference #OceanAction19759" ('One Ocean' Symposium, Scandinavian House, New York, 24 August 2019).

frameworks and practices, have resulted in escalating degradation". 403 Legal recognition will protect the ocean, enhance its resilience and entrench the rights of the Pacific. 404 For indigenous peoples across the Pacific, this idea is far from novel, as the granting of legal rights represents the protection of Tangaroa. 405 Recognising the rights of the Pacific Ocean would provide the bedrock for successful conservation, preservation and management of Te Moana-nui-a-Kiwa.

VIIConclusion

Anthropogenic climate change instigates the necessity for nations in the Pacific region to consider mitigation and adaptation strategies in anticipation of rising seas, ocean warming, coastal erosion, increased ocean acidification, biodiversity loss and other factors that culminate together to create the imminent ecological crisis. The Pacific region's current national, regional, and international commitments demonstrate a collective will to cooperate and commit to building resilience against the effects of climate change. Generally, reaching united decisionmaking is incredibly challenging at the international level, however, this strong regional cooperation lays the groundwork for strengthening governance, protection and resilience in the Pacific. 406 However, at present, the existing regional policy seascape lacks a strong centralised agreement that unites these commitments and holds nations accountable for implementing mitigation and adaptation strategies. Further, current co-management regimes such as Tīkapa Moana and Marae Moana are inhibited by power wielded by centralised governments and a lack of decision-making power granted to Māori and Pacific peoples, a lack of resources and institutional capacity, and inadequate monitoring and reporting mechanisms. To ensure that Te-Moana-Nui-a-Kiwa is protected, the Pacific region must adopt a new and improved regional agreement.

Such an agreement must require nations to develop and implement domestic ocean policies that facilitate the introduction of co-management regimes and represent a firm and irrevocable commitment to the protection and preservation of Te Moana-nui-a-Kiwa. A revitalised regional agreement must be based on indigenous leadership, recognising the inherent mana moana held by Māori and Pacific Island peoples. The role afforded to mana moana must go beyond mere

⁴⁰³ Secretariat of the Pacific Regional Environment Programme "Statement from the Collective Thinking on the Rights of the Pacific Ocean" (statement gathered from "A feasibility study on rights of the Pacific Ocean", Auckland, 19 and 20 November 2020).

⁴⁰⁴ United Nations "The Rights of the Pacific Ocean as a Legal Entity", above n 402. 405 United Nations "The Rights of the Pacific Ocean as a Legal Entity", above n 402.

⁴⁰⁶ Tsosie "Indigenous Peoples and Environmental Justice: The Impact of Climate Change", above n 180, at 1626.

consultation, and involve a devolution of power from centralised national governments to local communities and traditional leaders. This power sharing, combined with a clarification of stakeholder's roles, responsibilities and obligations will shift ocean governance back into alignment with customary practices that reflect the traditional ties that Māori and Pacific peoples share with the moana. Facilitating ocean governance that reflects community values is more likely to resonate with the community and is therefore essential for ensuring that the region's resilience to climate change is enhanced.

Regional coordination and cooperation must form the basis of a revitalised regional agreement. The protection of the ocean cannot be confined to jurisdictional boundaries — collaboration amongst the Pacific region is imperative to strengthen the region's ability to effectively govern, protect and conserve Te Moana-nui-a-Kiwa. Successful ocean governance requires the effective translation of high-level aspirations into national plans of action. Prescribing conservation targets and introducing robust monitoring and reporting mechanisms will catalyse accountability and track progress across the region. To mobilise action, the capacity and capability of nations must be addressed. Sourcing long term financing as well as building regional expertise is crucial to revive national motivation and formalise commitments to ocean protection. Drawing on principles of EBM can assist in providing an integrated, transboundary approach to ocean governance.

A revitalised regional agreement that adheres to these principles will allow for greater empowerment and integration of Māori and Pacific Island approaches to ocean governance and will ensure that mana moana may carry out their inherent, unwavering kaitiaki responsibilities, whilst also supporting the Pacific region's climate resilience. A revitalised regional agreement will be bolstered by the current efforts of activists, academics, and officials who are working towards developing an international convention on Pacific Ocean rights and enshrining Te Moana-nui-a-Kiwa as a legal entity. The time is now to reassert and reaffirm the mana moana of Māori and Pacific peoples through a revitalised regional agreement. This action is *imperative* to protect and preserve Te Moana-nui-a-Kiwa.

VIII Bibliography

A Cases

New Zealand Maori Council v Attorney General [1987] 1 NZLR 641 (CA).

B Legislation

1 New Zealand

Māori Fisheries Act 2004.

Marine and Coastal Area (Takutai Moana) Act 2011.

Ōrākei Act 1991.

Resource Management Act 1991.

The Hauraki Gulf Marine Park Act 2000.

2 The Cook Islands

Marae Moana Act 2017.

C Treaties, declarations and conventions

Treaty of Waitangi 1840.

United Nations Declaration on the Rights of Indigenous Peoples GA Res 61/295 (2007).

United Nations Convention on the Law of the Sea 1833 UNTS 396 (opened for signature 10 December 1982, entered into force 16 November 1994).

D Books and chapters in books

Randall S. Abate and Elizabeth Ann Kronk "Commonality among Unique Indigenous Communities: An Introduction to Climate Change and Its Impacts on Indigenous Peoples" in

Randall S. Abate and Elizabeth Ann Kronk (eds) *Climate Change and Indigenous Peoples: the search for legal remedies* (Edward Elgar Books, Cheltenham, 2013) 3.

James Anaya "Indigenous Peoples and the International System" in *International Human Rights and Indigenous Peoples* (Aspen Publishers, New York, 2009) 1.

Elsdon Best "Māori Religion and Mythology Part 1: Tangaroa" in *The Published Works of Elsdon Best* (A. R. Shearer, Government Printer, Wellington, 1976) 180.

Maxine Burkett "Indigenous Environmental Knowledge and Climate Change Adaptation" in Randall S. Abate and Elizabeth Ann Kronk (eds) *Climate Change and Indigenous Peoples: The Search for Legal Remedies* (Edward Elgar Books, Cheltenham, 2013) 96.

Eilis Donnelly "The Protection of Māori Knowledge and Culture in the Proposed Kermadec Ocean Sanctuary Bill" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 693.

Andrew Erueti "New Zealand/ Aotearoa and the Rights of Māori to Natural Resources in Marine Areas," in Stephen Allen, Nigel Bankes and Øyvind Ravna (eds) *The Rights of Indigenous Peoples in Marine Areas* (Oxford: Hart Publishing, 2019) 237.

Garth R. Harmsworth and Shaun Awatere "Indigenous Māori Knowledge and Perspectives of Ecosystems" in John Dymond (ed) *Ecosystem services in New Zealand: conditions and trends* (Manaaki Whenua Press, Lincoln, New Zealand, 2013) 274.

Epeli Hau'ofa "Our Sea of Islands" in *We Are the Ocean: Selected Works* (University of Hawai'i Press, 2008) 27.

Epeli Hau'ofa "The Ocean in Us" in *We Are the Ocean: Selected Works* (University of Hawai'i Press, 2008) 41.

Catherine Iorns Magallanes "Māori Co-governance and / or Co-management of Nature and Environmental Resources" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 301.

Johanna E. Johnson and others "Impacts of Climate Change on Marine Resources in the Pacific Island Region" in Lalit Kumar (ed) *Climate Change and Impacts in the Pacific* (Springer Climate, 2020) 359.

Carwyn Jones *New Treaty, New Tradition: Reconciling New Zealand and Māori Law* (UBC Press, Vancouver, 2016).

Lisa Kanawa "Climate change implications for Māori" in Rachael Selby, Pātaka Moore and Malcolm Mulholland (eds) *Māori and the Environment: Kaitiaki* (Huia Publishers, Wellington, 2010) 109.

Eric Kwa "Climate Change and Indigenous Peoples in the South Pacific: The Need for Regional and Local Strategies" in Benjamin J. Richardson and others (eds) *Climate Law and Developing Countries* (Edward Elgar Books, 2009) 102.

Hirini Moko Mead *Tikanga Māori: Living by Māori Values* (revised edition, Huia Publishers, Wellington, 2016).

Evelyn Pinkerton (ed) *Co-operative Management of Local Fisheries* (University of British Columbia Press, Vancouver, 1989).

Mary Power and Anama Solofa "The Pacific Islands Regional Ocean Policy and the Framework for a Pacific Oceanscape: 'Many Islands — One Ocean" in Biliana Cicin-Sain, David Vanderzwaag and Miriam C. Balgos (eds) *Routledge Handbook of National and Regional Ocean Policies* (Routledge, London, 2015) 504.

Mylene MD Rakena "Māori Environmental Governance and Ecosystem-based Management in Aotearoa, New Zealand" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 897.

Jacinta Ruru "Māori Governance of Water: Innovation in Reconciliation Agreements" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 407.

Rachael Selby, Pātaka Moore and Malcolm Mulholland (eds) *Māori and the Environment: Kaitiaki* (Huia Publishers, Wellington, 2010).

Erika J. Techera "Climate change, legal governance and the Pacific Islands: an overview" in Randall S. Abate and Elizabeth Ann Kronk (eds) *Climate Change and Indigenous Peoples: the search for legal remedies* (Edward Elgar Books, Cheltenham, 2013) 339.

Valmaine Toki "The World Bank Dedicated Grant Mechanism and Māori Governance" in Robert Joseph and Richard Benton (eds) *Waking the Taniwha: Māori Governance in the 21st Century* (Thomas Reuters, Wellington, 2021) 839.

E Journal articles

Neil L. Andrew "Coastal proximity of populations in 22 Pacific Island Countries and Territories" (2019) 14(9) PLOS ONE 1.

AH Angelo "The Pacific Islands Forum 2014" (2014) 12 NZYIL 135.

Derek R Armitage and others "Adaptive co-management for social-ecological complexity" (2009) 7(2) Front Ecol Environ 95.

Shankar Aswani and others "The way forward with ecosystem-based management in tropical contexts: Reconciling with existing management systems" (2012) 35 Mar Poly 1.

Shankar Aswani "Socioecological Approaches for Combining Ecosystem-Based and Customary Management in Oceania" (2011) 845385 J Mar Biol 1 at 1-2 and 10-11.

Natalie Ban, Emma Wilson and Doug Neasloss "Strong historical and ongoing indigenous marine governance in the northeast Pacific Ocean: a case study of the Kitasoo/Xai'xais First Nation (2019) 24(4) Ecol Soc 10.

Natalie Ban and Alejandro Frid "Indigenous peoples' rights and marine protected areas" (2018) 97 Mar Poly 180.

Jon Barnett and W. Neil Adger "Climate Dangers and Atoll Countries" 61 Climate Change 321.

Fikret Berkes "Indigenous ways of knowing and the study of environmental change" (2009) 39(4) J R Soc NZ 151.

Fikret Berkes, Johan Colding and Carl Folke "Rediscovery of Traditional Ecological Knowledge as Adaptive Management" (2000) 10(5) Ecol Appl 1251.

Angel Borja and others "Moving Toward an Agenda on Ocean Health and Human Health in Europe" (2020) 7 Front Mar Sci 1.

Erika Campbell "Indigenous Relationality and Kinship and the Professionalization of Maternity Care" (2020) 1(1) TIJIH 8.

Laurence Cordonnery "Implementing the Pacific Islands Regional Ocean Policy: How Difficult Is It Going to Be?" (2005) 36 VUWLR 723.

Kathryn Davies and others "The evolution of marine protected area planning in Aotearoa New Zealand: Reflections on participation and process" (2018) 93 Mar Poly 113.

Michelle J. Devlin and others "The tropical Pacific Oceanscape: Current issues, solutions and future possibilities" (2021) 166 Mar Pollut Bul 1.

Natalie Degger and others "Navigating the Complexity of Regional Ocean Governance Through the Large Marine Ecosystems Approach" (2021) Front Mar Sci 1 at 2.

Scott C. Doney and others "Climate Change Impacts on Marine Ecosystems" (2011) 4 Annu Rev Mar Sci 11.

Trevor J Durbin "What Now, Fishgate?": Scandal, Marae Moana, and Nation Making in the Cook Islands" (2018) 30(1) Contemp Pac 1.

Lucia Fanning and others "Challenges to Implementing Regional Ocean Governance in the Wider Caribbean Region" (2021) 8 Front Mar Sci 1.

Melissa L. Finucane "Why Science Alone Won't Solve the Climate Crisis: Managing Climate Risks in the Pacific" (2009) 89 Asia Pacific Issues 1.

Catherine Giraud-Kinley "The Effectiveness of International Law: Sustainable Development in the South Pacific Region" (1999) 12 GeoInt'l Envtl L Rev 125.

D Green and G Raygorodetsky "Indigenous Knowledge of a Changing Climate" (2010) 100 Climatic Change 239.

Judi Hewitt and others "Proposed ecosystem-based management principles for New Zealand" (2018) 11 RMLA 10.

Daniel Hikuroa "Mātauranga Māori — the ūkaipō of knowledge in New Zealand" (2017) 47(1) J R Soc NZ 5.

Jemima Jamieson "The role of Indigenous communities in the pursuit of sustainability" (2010) 14 NZJEL 161.

Robert E. Johannes "The Renaissance of Community-Based Marine Resource Management in Oceania" (2002) 33 Annu Rev Ecol Syst 317.

Robert E. Johannes "Traditional Marine Conservation Methods in Oceania and their Demise" (1978) 9 Ann Rev Ecol Syst 349.

Christopher N. Johnson "Biodiversity losses and conservation responses in the Anthropocene" (2017) 356 Science 270.

Stacy D. Jupiter and others "Locally-managed marine areas: multiple objectives and diverse strategies" (2014) 20(2) Pac Conserv Biol 165.

Viktoria Kahui and Amanda C Richards "Lessons from resource management by indigenous Māori in New Zealand: Governing the ecosystems as a commons" (2014) 102 Ecol Econ 1.

Brooks A Kaiser and others "The Importance of Connected Ocean Monitoring Knowledge Systems and Communities" (2019) 6 Front Mar Sci 1.

Darren NT King, A. Skipper and W. B. Tawhai "Māori environmental knowledge of local weather and climate change in Aotearoa - New Zealand" (2008) 90 Climatic Change 385.

Robert E. Kopp and others "Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites" (2014) 2 Earth's Future 383.

Toni Love "Incorporating Māori approaches to ecosystem management in marine management" (2018) 7 Māori LR.

Robin Mahon and Lucia Fanning "Regional ocean governance: Polycentric arrangements and their role in global ocean governance" (2019) 107 Mar Poly 1.

Kimberly H. Maxwell and others "Navigating towards marine co-management with Indigenous communities on-board the Waka-Taurua" (2020) 111 Mar Poly 1.

Fiona McCormack "Interdependent Kin in Māori Marine Environments" (2021) 91(2) Oceania 197.

Fiona McCormack "Māori Saltwater Commons: Property, wealth and inequality" (2018) 1(1) Commoning Ethnography 9.

Fiona McCormack "Rāhui: A blunting of teeth" (2011) 120 J Polyn Soc 43.

Heather L. McMillen and others "Small islands, valuable insights: systems of customary resource use and resilience to climate change in the Pacific" (2014) 19(4) Ecol and Soc 44.

Johanna Nalau and others "The Role of Indigenous and Traditional Knowledge in Ecosystem-Based Adaptation: Review of the Literature and Case Studies from the Pacific Islands (2018) 10 WCAS 851.

Meg Parsons, Lara Taylor and Roa Crease "Indigenous Environmental Justice within Marine Ecosystems: A Systematic Review of the Literature on Indigenous Peoples' Involvement in Marine Governance and Management" (2021) Sustainability 13(8) 1.

Linwood Pendleton, Karen Evans and Martin Visbeck "We need a global movement to transform ocean science for a better world" (2020) 117 PNAS 9652.

Cristelle Pratt and Elizabeth Brierley "Ocean Governance and the Ocean Commissioner in the Pacific" (2016) 65(1) Soc Econ Stud 133.

Mere Roberts and others "Kaitiakitanga: Māori perspectives on conservation" (1995) 2 Pac Conserv Biol 7

Julien Rochette and others "Regional oceans governance mechanisms: A review" (2015) 60 Mar Poly 9.

Mary Ruckelshaus and others "Securing ocean benefits for society in the face of climate change" (2013) 40 Mar Poly 154.

Jacinta Ruru and others "Reversing the Decline in New Zealand's biodiversity: empowering Māori within reformed conservation law" (2017) PQ 65.

Raymond W. Schmitt "The Ocean's Role in Climate" (2018) 31(2) Oceanography Soc 32.

Karen Scott "Does Aotearoa New Zealand Need an Oceans Policy for Modern Ocean Governance" (2021) 35(1) Ocean Yearb 273.

Emma Smith "Giving greater effect to Treaty obligations in our constitution would be good for our natural environment" (2013) 6 Māori LR.

Todd Taiepa and others "Co-management of New Zealand's conservation estate by Māori and Pakeha: a review" (1997) 24(3) Environ Conserv 236.

Sarah-Jane Tiakiwai, Jonathan Timatanga Kilgour and Amy Whetu "Indigenous perspectives of ecosystem-based management and co-governance in the Pacific Northwest: lessons for Aotearoa" (2017) 13(1) AlterNative 69.

Virginie Tilot "Traditional Dimensions of Seabed Resource Management in the Context of Deep Sea Mining in the Pacific: Learning from the Socio-Ecological Interconnectivity Between Island Communities and the Ocean Realm" (2021) 8 Front Mar Sci 1.

Gail Tipa and Richard Welch "Comanagement of Natural Resources: Issues of Definition from an Indigenous Community Perspective" (2006) 42(3) J Appl Behav Sci 373.

Rebecca Tsosie "Climate Change and Indigenous Peoples: Comparative Models of Sovereignty" (2013) 26 Tul Envtl LJ 239.

Rebecca Tsosie "Indigenous Peoples and Environmental Justice: The Impact of Climate Change" (2007) 78(4) U Colo L Rev 1625.

Andrew Wright, Natasha Stacey and Paula Holland "The cooperative framework for ocean and coastal management in the Pacific Islands: Effectiveness, constraints and future direction" (2006) 49 Ocean & Coastal Management 739.

Joel Veitayaki and Nathan Evans "The Pacific Islands Regional Ocean Policy: The Quest for Good Ocean Governance" (2004) 18 Ocean Yearb 558.

Joel Veitayaki "Traditional marine resource management practices used in the Pacific Islands: an agenda for change" (1997) 37 Ocean & Coastal Management 123.

Marjo Vierros and others "Considering Indigenous Peoples and local communities in governance of the global ocean commons" (2020) 119 Mar Poly 1.

Joanna Vince and others "Ocean governance in the South Pacific region: progress and plans for action" (2017) 79 Mar Poly 40.

Olivia Warrick and others "The 'Pacific Adaptive Capacity Analysis Framework': guiding the assessment of adaptive capacity in Pacific island communities" (2017) 17 Reg Environ Change 1039.

Joseph Williams "Lex Aotearoa: An Heroic Attempt to Map the Māori Dimension in Modern New Zealand Law" (2013) 21 Wai L Rev 1.

Boris Worm and others "Impacts of biodiversity loss on ocean ecosystem services" (2006) 314 Science 787.

F Reports

Commonwealth Marine Economies Programme *Pacific Marine Climate Change Report Card* 2018 (UK Government, 2018).

Conservation International Sustainable Financing Mechanism For Ridge to Reef Approaches and Protected Area Management within Marae Moana — An Assessment of options (report produced for the Cook Islands Marae Moana Coordination Office and National Environmental Service, March 2020).

Department of Conservation Revitalising the gulf: Government action on the Sea Change Plan. Government Strategy in response to the Sea Change — Tai Timu Tai Pari — Hauraki Gulf Marine Spatial Plan (Department of Conservation, Fisheries New Zealand, Ministry for Primary Industries, June 2021).

Edward Taihakurei Durie *Custom Law* (Treaty of Waitangi Research Unit, Research Paper, Victoria University of Wellington, 1994).

Government of the Republic of Fiji *Republic of Fii: National Climate Change Policy* (Secretariat of the Pacific Community, Suva, Fiji, 2012).

Hauraki Gulf Forum | Tīkapa Moana State of our Gulf 2020: Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi: State of the Environment Report 2020 (February 2020).

International Union for Conservation of Nature *Issues brief: Ocean Warming* (November 2017).

IPCC "Summary for Policymakers" in IPCC Climate Change 2021: The Physical Basis. Working Group 1 Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, Cambridge, 2021).

IPCC "Summary for Policymakers" in IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (2019).

IPCC "Small Islands" in IPCC Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, Cambridge, 2014) 1613.

Robert Joseph and others, *Stemming the Colonial Environmental Tide - Shared Māori Governance Jurisdiction and Ecosystem-Based Management over the Marine and Coastal Seascape in Aotearoa New Zealand – Possible Ways Forward* (National Science Challenge Sustainable Seas Ko Ngā Moana Whakauka and Te Mata Hautū Taketake – the Māori and Indigenous Governance Centre, Te Piringa-Faculty of Law, University of Waikato, 2020).

Robert Joseph and others *The Treaty, Tikanga Māori, Ecosystem-based Management, Mainstream Law and Power Sharing for Environmental Integrity in Aotearoa New Zealand*— *Possible Ways Forward* (Sustainable Seas, Te Mata Hautū Taketake — the Māori and Indigenous Governance Centre, Te Piringa-Faculty of Law, University of Waikato, 2019).

Robert Joseph and others *Tūhonohono: Tikanga Māori me te Ture Pākehā ki Takutai Moana: Project Proposal Template* (Sustainable Seas, National Science Challenges).

Mirjam Macchi and others *Indigenous and Traditional Peoples and Climate Change* (International Union for Conservation of Nature, Issues Paper, March 2008).

Paul Majurey and Paul Beverley *Tai Timu Tai Pari Sea Change Hauraki Gulf Marine Spatial Plan* (Hauraki Gulf Forum, Ministry for Primary Industries, Department of Conservation, Waikato Regional Council and Auckland Council, April 2017).

Ministry for the Environment and Statistics New Zealand *New Zealand's Environmental Reporting Series: Our marine environment 2019* (October 2019).

Ministry for the Environment and Statistics New Zealand *New Zealand's Environmental Reporting Series: Our marine environment 2016* (October 2016).

Masao Nakayama and Fredrick L. Ramp. *Micronesian Navigation, Island Empires and Traditional Concepts of Ownership of the Sea* (report prepared for the Fifth Congress of Micronesia, Saipan, 14 January 1974).

Office of the Pacific Ocean Commissioner Blue Pacific Ocean Report 2021: A Report by the Pacific Ocean Commissioner to the Pacific Island Forum Leaders (2021).

Office of the Pacific Ocean Commissioner Framework for a Pacific Oceanscape: Progress Report Card 2016 (2016).

Office of the Pacific Ocean Commissioner *Our Sea of Islands, Our Livelihoods, Our Oceania: Pacific Regional Ocean Policies* (Produced by the Pacific Islands Forum Fisheries Agency and the Secretariat of the Pacific Community).

Oxfam The future is here: climate change in the Pacific (Oxfam briefing paper, 2009).

Pacific Islands Forum Leaders *Pacific Roadmap for Sustainable Development* (endorsed at the 48th Pacific Islands Forum, Apia, 5-8 September 2017).

Alan Parker and others *Climate Change and Pacific Rim Indigenous Nations* (Northwest Indian Applied Research Institute, The Evergreen State College, Olympia, Washington, October 2006).

Cristelle Pratt and Hugh Govan *Our Sea of Islands, Our Livelihoods, Our Oceania - Framework for a Pacific Oceanscape: a catalyst for implementation of ocean policy* (November 2010).

Matthew Rout and others *Māori Marine Economy: A Literature Review* — *Whai rawa, whai mana, whai oranga: creating a world-leading Indigenous blue marine economy* (research project of the Sustainable Seas National Science Challenge, Tangaroa Research programme, June 2019).

Sea Change Tai Timu Tai Pari Ministerial Advisory Committee Report from the Sea Change Tai Timu Tai Pari Ministerial Advisory Committee to Hon Stuart Nash Minister of Fisheries and Hon Eugenie Sage Minister of Conservation (September 2020).

Secretariat of the Pacific Regional Environment Programme "Factsheet: Pacific Climate Change" (August 2008) < www.sprep.org>.

Lara Taylor, Tania Te Whenua and Bonny Hatami *Discussion Paper: How current legislative* frameworks enable customary management & ecosystem-based management in Aotearoa New Zealand — the contemporary practice of rāhui (Produced for Sustainable Seas National Science Challenge, EBM Discussion Paper, 2018).

Te Aka Matua o Te Ture | Law Commission *Māori Custom and Values in New Zealand Law* (NZLC SP9, 2001).

UNESCO-IOC The United Nations Decade of Ocean Science for Sustainable Development (2021-2030) Implementation Plan (IOC Ocean Decade Series 20, 2021).

United Nations Environmental Programme *UNEP and Indigenous Peoples: A Partnership in Caring for the Environment Policy Guidance* (26 November 2012).

Marjo Vierros and others *Traditional Marine Management Areas of the Pacific in the Context of National and International Law and Policy* (United Nations University, Darwin, 2010).

Michael Vincent McGinnis *Ocean Governance: The New Zealand Dimension Full Report* (report prepared for the Center for the Blue Economy, 15 August 2012).

Waitangi Tribunal Ko Aotearoa Tēnei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity (Wai 262, 2011).

Waitangi Tribunal Report on the Crown's Foreshore and Seabed Policy (Wai 1071, 2004).

Waitangi Tribunal Report of the Waitangi on The Manukau Claim (Wai 8, 1985).

Waitangi Tribunal Report of the Waitangi Tribunal on The Motunui-Waitara Claim (Wai 6, 1983).

Carla Wilson and others *Māori methods and indicators for marine protection: summary of research findings* (Department of Conservation, 2007).

G Dissertations

Jacqueline Tepaeru Evans "Political Ecology, Structural Adjustment and Coral Reef Change in the Cook Islands, a Micro-State" (Master of Arts Thesis, University of Hawai'i, 2006).

Nathan Jon Ross "Low-lying States, Climate Change-Induced Relocation, and the Collective Right to Self-Determination" (LLB (PhD) Thesis, Victoria University of Wellington, 2019).

H Unpublished papers

Joseph Williams *He Aha Te Tikanga Māori* (unpublished paper for the Law Commission, 1998) 20.

Edward Taihakurei Durie *Custom Law* (Treaty of Waitangi Research Unit, Research Paper, Victoria University of Wellington, 1994).

I Internet materials

Alejandra Borunda "Ocean warming, explained" (14 August 2019) National Geographic www.nationalgeographic.com.

Rachel Buxton and others "Respect for Indigenous knowledge must lead nature conservation efforts in Canada" (22 April 2021) The Conversation www.theconversation.com.

Conservation International "Marae Moana: Cook Islands Marine Park" www.conservation.org.

The Economist Group: World Ocean Initiative "COP26 and the ocean-climate nexus" (28 April 2021) <www.ocean.economist.com>.

Alan Friedlander "Noted scientist applauds Marae Moana" (19 November 2018) Marae Moana <www.maraemoana.gov.ck>.

International Waters Learning Exchange & Resource Network "4. Regional Ocean Governance" <www.iwlearn.net>.

International Waters Learning Exchange & Resource Network "What are Large Marine Ecosystems (LMEs)?" <www.iwlearn.net>.

Marae Moana "What Is Marae Moana" <www.maraemoana.gov.ck>.

Marae Moana "Marine Park Map" <www.maraemoana.gov.ck>.

Monica Evans "Give it back to the gods: Reviving Māori tradition to protect marine life" (27 September 2019) Mongabay Series: Sea Change <www.news.mongabay.com>.

Monica Evans "Will a massive marine protected area safeguard Cook Islands' ocean?" (19 September 2019) Mongabay Series: Sea Change www.news.mongabay.com.

Monica Evans "Cook Islands MPA leader fired after supporting seabed mining freeze" (15 October 2019) Mongabay Series: Sea Change <www.mongabay.com>.

Stephen Howes and Sadhana Sen "Another Pacific Plan, really?" (19 January 2021) DevPolicy Blog <www.devpolicy.org>.

Ngā Pae o Te Māramatanga | New Zealand's Māori Centre of Research Excellence "Measuring the restoration of mauri and ecosystem services at Whenua Rangatira (2014) www.maramatanga.co.nz>.

Pacific Islands Forum "The 2050 Strategy for the Blue Pacific Continent" www.forumsec.org.

Meg Parsons and Lara Taylor "Why Indigenous knowledge should be an essential part of how we govern the world's oceans" (8 June 2021) The Conversation www.theconversation.com>.

Jodie L. Rummer and others "It might be the world's biggest ocean, but the mighty Pacific is in peril" (6 December 2020) The Conversation www.theconversation.com.

Science Learn | Pokapū Akoranga Pūtaio "Looking at ecosystem-based management (EBM)" (13 October 2017) <www.sciencelearn.org.nz>.

Secretariat of the Pacific Regional Environment Programme "Members" <www.sprep.org>.

Pita Sharples "Indigenous Peoples' Legal Water Forum: Introduction" (paper presented to Indigenous Peoples' Legal Water Forum, Wellington, New Zealand, 28 July 2009) www.beehive.govt.nz>.

United Nations "The Rights of the Pacific Ocean as a Legal Entity: A science based feasibility study — #OceanAction19759" <www.oceanconference.un.org>.

United Nations Decade of Ocean Science for Sustainable Development (2021-2030) *The Science We Need for the Ocean We Want* (IOC/BRO/2020/4, July 2020).

United Nations Environment Programme "Why does climate change matter?" (2020) https://www.unep.org/about-un-environment>.

United Nations Development Programme "Climate Change Adaptation: Kiribati" www.adaptation.undp.org.

J Other resources

Conservation International "Pacific Oceanscape" (7 June 2016).

Victor David "Towards a Regional Convention on the Rights of the Pacific Ocean as a Legal Entity: A Voluntary Commitment to the UN Ocean Conference #OceanAction19759" ('One Ocean' Symposium, Scandinavian House, New York, 24 August 2019).

Hirini Moko Mead *The Nature of Tikanga* (paper presented to Mai i te Ata Hāpara Conference, Te Wānanga o Raukawa, Otaki, 11–13 August 2000).

Pacific Islands Forum "Pacific Islands Forum Leaders Ocean Statement 2021" (statement, 22 March 2021).

Pacific Islands Forum Secretariat "Annex 3: Pohnpei Ocean Statement: A course to sustainability" in *Forty-Seventh Pacific Islands Forum: Forum Communiqué* (presented at 47th Pacific Island Forum, Pohnpei, 8-10 September 2016).

Pacific Islands Forum Secretariat "Annex B: Palau Declaration on the "The Ocean: Life and Future": Charting a course to sustainability in *Forty-Fifth Pacific Islands Forum: Forum Communiqué* (presented at 45th Pacific Island Forum, Koror, 29–31 July 2014).

Secretariat of the Pacific Regional Environment Programme "Statement from the Collective Thinking on the Rights of the Pacific Ocean" (statement gathered from "A feasibility study on rights of the Pacific Ocean", Auckland, 19 and 20 November 2020).

Secretariat of the Pacific Regional Environment Programme *Blue Pacific Proposal for the UNFCCC Dialogue on Oceans and Climate Change* (2020).

Secretariat of the Pacific Regional Environmental Programme Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) 2017-2030 (2016).

Secretariat of the Pacific Community "Pacific Islands Regional Ocean Policy and Framework for Integrated Strategic Action" (Marine Sector Working Group, Council of Regional Organisations in the Pacific, Pacific Islands Forum Secretariat, 2005).

Secretariat of the Pacific Regional Environment Programme *Pacific Islands Framework for Action on Climate Change 2006-2015* (endorsed at the 36th Pacific Islands Forum, Papua New Guinea, 25-27 October 2005).

Secretary General Dame Meg Taylor "Opening Remarks to the 2017 Pacific Update" (Japan-Pacific ICT Multipurpose Theatre, University of the South Pacific, Laucala Campus, 20 June 2017).

Sustainable Seas "Protecting land and sea through EBM" (video podcast, 8 April 2020) www.sustainableseaschallenge.co.nz>.

United Nations "The Cook Islands — 'Ocean Wealth'" (video podcast, 24 December 2014) www.maraemoana.gov.ck>.

United Nations General Assembly *Transforming our world: the 2030 Agenda for Sustainable Development* GA Res A/Res70/1 (2015).

Word count

The text of this paper (excluding table of contents, footnotes, glossary and bibliography) comprises approximately 13,397 words.