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Thoughts on a Concept to Reconcile World Views to improve Marine Health in the New Zealand Exclusive Economic Zone

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*Kia hora te marino
Kia whakapapa pounamu te moana
Kia tere te kārohirohi i mua i tō huarahi*

Background

This concept description has been developed to document consistent and repeated conversations with a range of stakeholders across ENGOs, government, Māori seafood business, Māori community advocates, recreational fishers and scientists all seeking ways to catalyse systematic marine protection (ecological health) for Aotearoa/New Zealand that fundamentally underpins Māori fisheries rights and move past the fears that they're being undermined.

Terra Moana Ltd recognises there are a range of categories and criteria for marine protection including Habitats of Particular Significance for Fisheries Management (Section 9(c) of the Fisheries Act, 1996) and which still, more than 20 years after the Act, remains undefined. There are also rāhui, taiāpure and mātaimai, marine reserves, cable zone, fisheries closures etc etc. Terra Moana Ltd has focussed on using the language of *habitats that are critical for fish production* which although seemingly utilitarian gets at the point and raises awareness that harvested species, whether recreational, commercial or customary, let alone those that are simply enjoyed for their existence (aesthetic, spiritual etc) value, all need habitats in which to breed, feed, grow and be.

This is not to say that marine protection efforts are not underway. They are. Formally in government and local authorities and also notably, we are aware that the Iwi Collective Partnership, WWF NZ, Ngāti Kuri and TOKM all have either delivered or intend to deliver hui that involve Hawaiian expertise as well as other Pacific Island and/or aboriginal peoples to learn from and stimulate korero about this for Aotearoa/New Zealand. DOC also has a MPA research agenda, MPI has trawl footprint work underway and the Office of the Parliamentary Commissioner for the Environment is beginning to scope new marine investigations. There are also ~ 400 MACA applications, some regional and district councils are taking firm direction under their RMA responsibilities etc etc etc. Discourse is also underway about the relevance of Wai262 to marine ecosystems, marine mātauranga as well as a growing interest in understanding the implications if maramataka were used to influence fisheries management.

Systematic marine protection is very slow, polarised and politicised in Aotearoa/New Zealand. Does this matter? It depends on one's point of view, values, information and risk tolerance. Best practice international science says that ~30-40% of the marine area needs to be protected from all uses to enable resilience against non-linear change (climate change) and other stressors (e.g. sediment), let alone the cumulative effects of multiple-stressors. Marine ecosystem health needs caring for.

Naturally Terra Moana welcomes being a part of any efforts to create the ideas below. We recognise that science is a means to an end and the process we outline below, although with mātauranga and western science¹ at its core, if carefully designed and governed, and if allowed to run its course independently, could bring much value add which could fundamentally change the nature of the marine protection discourse and knowledge base in Aotearoa New Zealand.

Assumptions

- whether one is a recreational, commercial, customary, spiritual or aesthetic marine creature, one needs somewhere to live – all marine life needs habitats and many need different habitats for different life history stages.
- Marine governance in Aotearoa/New Zealand is complex, fragmented, and does not appear to be a central government political priority.
- There is no systematic national marine protection agenda.
- The current western science driven approach to marine protection in Aotearoa/New Zealand *does not* readily align to Te Ao Māori – in many ways.
- EBM *does* align to Te Ao Māori – in many ways – (Anne-Marie Jackson’s Kaitiakitanga paper).
- Many kaupapa Māori approaches currently expressed through rahui, taiāpure and mātaimai are not being recognized as part of systematic national marine protection nor systematically monitored.
- The New Zealand Ocean Data Network/portal is finally up and running and being populated although many marine data-sets remain distributed with problematic accessibility.
- The underutilised IUCN Indigenous Protected Areas criteria could be far better used by Māori and others (in potential partnership) to redefine how marine spatial management occurs here.
- The Takutai Moana/MACA rohe moana applications are both risks and opportunities for Māori seafood business i.e. risks in the extensive process to address them and some that express anti-commercial fishing views yet overall they are also opportunities to understand and use mātauranga to improve key coastal marine habitat management, including of which would be of value to commercial and recreational fisheries.

A Safe Space to Korero

1. Māori and key partner leadership takes a fresh look at the *opportunities* associated with the design to apply kaitiakitanga in practice alongside the push for EBM, MPAs and Marine Spatial Planning and the use of mātauranga to underpin marine health and seafood production.
2. There is after all no single Māori view on the EEZ, yet there are many common values and often similar interpretations of the mātauranga for the moana amongst Māori.
3. How will Māori seize the opportunity to drive & define what this will look like for Aotearoa/NZ? This is happening with the Canadian Haida Gwaii peoples (link below).
4. A positive, proactive strategy and deliberate, urgent leadership and resourcing.
5. A safe space to have the korero and do the modelling about the implications – especially the implications on the Māori quota portfolio.

N.B. “safe” means: Resourced, Professional, Facilitated, Intellectually open with an absence of foregone conclusions or political influence.

Concept

That a mātauranga and science reconciliation process be run in four workstreams:

1. Mātauranga – using kaupapa Māori methodology to develop and test Mauri-based designs of systematic marine protection for the EEZ (possibly e.g. dynamic). This would also explore using the IUCN Indigenous Protected Areas criteria.

¹ <https://thespinoff.co.nz/partner/auckland-zoo/25-03-2019/matauranga-maori-and-western-science-two-worlds-meet-to-save-the-one-we-have/> and the Sustainable Seas Science Challenge Waka Taurua framework.

A small team (3-4 Māori) of mātauranga and marine science capable individuals (who have been trained to walk in both worlds) in a resourced 2-3 year innovation project to design an integrated model of coastal habitats, wāhi tapu etc for at least one FMA (if not the entire continental shelf depending on \$).

2. Western science (and 3-4 scientists) to do the same as above through standard science techniques to design a comprehensive, adequate and representative network of marine protected areas.

1 and 2 would be explicitly co-designed and required to come together regularly for workshops, information sharing, acculturation, introduction to and training in each other's tools and approaches and cross-cultural learning on all levels.

The exercise would initially focus on fisheries (customary, recreational and commercial) and once operating successfully could include other marine sectors – e.g. oil and gas (depending on resourcing).

Model = at least maps, oceanography, economics, mauri values, sediment inputs, what is known in relation to climate change.

Using those maps co-design what a systematic approach to marine protection - that respected Māori fisheries rights and understood the quota holding implications of the various models - looked like in Aotearoa/New Zealand as is being done with the [Haida Gwaii people in Canada](#). Terra Moana has contacts in the Canadian Parks and Wilderness Society for this and key Māori contacts have relationships there too. This team could, for example, explore the degree to which new approaches have gained effective traction in Canada.

3. An economic analysis unit that modelled the implications of the various design choices, either in just the Māori seafood quota portfolio OR in all seafood companies' portfolios – whichever companies choose to play get considered – recognising that some fisheries are multi-company such as Hoki via the Deepwater Group. This would be under non-disclosure agreements to access commercially sensitive data and produce business-useful real-world scenarios.

i.e. answering the questions: what are the potential habitat changes and/or expected productivity improvements for given species and thus fisheries of different spatial choices?

4. A legal and policy analysis piece could be run in parallel too on the legal and policy implications of different objectives and management scenarios. It is well recognised that New Zealand has a significant amount of overlapping (and conflicting) marine related legislation. What can be rationalised, streamlined and made more efficient? i.e. the UK spent 10 years exploring its new Marine Act and Marine Management Organisation.

Note: NCEAS, the National Centre for Ecological Analysis and Synthesis at UC Santa Barbara has run similar processes as this on polarised fisheries issues and is a model that could be learnt from and or employed to support this with facilitation or delivery/independence. This process could also use the Stanford Centre for Ocean Solutions where Terra Moana has strong relationships (Jim Leape, Fiorenza Micheli) if/as appropriate.

<https://www.nceas.ucsb.edu/about>

<https://www.nceas.ucsb.edu/projects/12109>

A Range of Possible Outcomes

- This would enable quota holders and others with jurisdictional responsibilities (assuming they 'play' constructively) to develop **area/habitats/harvest footprint and quota implications model(s) in relation to various protection regimes**.
- It would build cross-cultural understanding about the values Māori and non-Māori place on marine ecosystems and habitats.

- It could enable an appropriate pause for consideration of the nature and extent of the role for EBM and MPAs in New Zealand fisheries management going forward.
- It would enable the nature and extent to first be considered through a “Te Ao Māori lens” not driven by international examples or pressures. How does this reconcile with the “IUCN Indigenous Protected Areas criteria”?
- It could underpin EBM to ensure EBM complements rather than is perceived as usurping the QMS? given the QMS is so deeply anchored in Treaty Rights and interests.
- It could build on, weave and feed into other relevant programmes and projects in New Zealand (WWF, Sustainable Seas Science Challenge, government agency work etc)
- Iwi/Māori would ultimately drive the agenda and eventual shape of MPA policy in New Zealand.
- This could place Iwi/Māori in a proactive, open minded yet applied, principled and disciplined space for considering this and any further alternative management approaches.

This project could be resourced by a range of parties and which would create the necessary political independence:

- a. Māori (seafood businesses, TOKM, key iwi depending on the FMA chosen).
- b. Key RL, Pāua and finfish quota owners depending on the FMA chosen.
- c. Government, central, regional (the Marine Hub?)
- d. CRIs
- e. Universities.
- f. NGOs
- g. A joint approach by the above to Philanthropists to co-fund.

Ends