Manaaki Whenua
Landcare Research

A perspective on Te Ao Māori and Regenerative Agriculture – Tangata ahu whenua: nurturing our landscapes

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‘Think piece’ on Regenerative Agriculture in Aotearoa New Zealand: project overview and statement of purpose

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Find the full project overview, white paper and topic reports at:

ourlandandwater.nz/regenag and www.landcareresearch.co.nz/publications/regenag

This report is one of a series of topic reports written as part of a ‘think piece’ project on Regenerative Agriculture (RA) in Aotearoa New Zealand (NZ). This think piece aims to provide a framework that can be used to develop a scientific evidence base and research questions specific to RA. It is the result of a large collaborative effort across the New Zealand agri-food system over the course of 6 months in 2020 that included representatives of the research community, farming industry bodies, farmers and RA practitioners, consultants, governmental organisations, and the social/environmental entrepreneurial sector.

The think piece outputs included this series of topic reports and a white paper providing a high-level summary of the context and main outcomes from each topic report. All topic reports have been peer-reviewed by at least one named topic expert and the relevant research portfolio leader within MWLR.

Foreword from the project leads

Regenerative Agriculture (RA) is emerging as a grassroot-led movement that extends far beyond the farmgate. Underpinning the movement is a vision of agriculture that regenerates the natural world while producing ‘nutrient-dense’ food and providing farmers with good livelihoods. There are a growing number of farmers, NGOs, governmental institutions, and big corporations backing RA as a solution to many of the systemic challenges faced by humanity, including climate change, food system disfunction, biodiversity loss and human health (to name a few). It has now become a movement. Momentum is building at all levels of the food supply and value chain. Now is an exciting time for scientists and practitioners to work together towards a better understanding of RA, and what benefits may or not arise from the adoption of RA in NZ.

RA’s definitions are fluid and numerous – and vary depending on places and cultures. The lack of a crystal-clear definition makes it a challenging study subject. RA is not a ‘thing’ that can be put in a clearly defined experimental box nor be dissected methodically. In a way, RA calls for a more prominent acknowledgement of the diversity and creativity that is characteristic of farming – a call for reclaiming farming not only as a skilled profession but

also as an art, constantly evolving and adapting, based on a multitude of theoretical and practical expertise.

RA research can similarly enact itself as a braided river of interlinked disciplines and knowledge types, spanning all aspects of health (planet, people, and economy) – where curiosity and open-mindedness prevail. The intent for this think piece was to explore and demonstrate what this braided river could look like in the context of a short-term (6 month) research project. It is with this intent that Sam Lang and Gwen Grelet have initially approached the many collaborators that contributed to this series of topic reports – for all bring their unique knowledge, expertise, values and worldviews or perspectives on the topic of RA.

How was the work stream of this think piece organised?

The project's structure was jointly designed by a project steering committee comprised of the two project leads (Dr Gwen Grelet[1] and Sam Lang[2]); a representative of the New Zealand Ministry for Primary Industries (Sustainable Food and Fibre Futures lead Jeremy Pos); OLW's Director (Dr Ken Taylor and then Dr Jenny Webster-Brown), chief scientist (Professor Rich McDowell), and Kaihāpai Māori (Naomi Aporo); NEXT's environmental director (Jan Hania); and MWLR's General Manager Science and knowledge translation (Graham Sevicke-Jones). OLW's science theme leader for the programme 'Incentives for change' (Dr Bill Kaye-Blake) oversaw the project from start to completion.

The work stream was modular and essentially inspired by theories underpinning agent-based modelling (Gilbert 2008) that have been developed to study coupled human and nature systems, by which the actions and interactions of multiple actors within a complex system are implicitly recognised as being autonomous, and characterised by unique traits (e.g. methodological approaches, world views, values, goals, etc.) while interacting with each other through prescribed rules (An 2012).

Multiple working groups were formed, each deliberately including a single type of actor (e.g. researchers and technical experts only or regenerative practitioners only) or as wide a variety of actors as possible (e.g. representatives of multiple professions within an agricultural sector). The groups were tasked with making specific contributions to the think piece. While the tasks performed by each group were prescribed by the project lead researchers, each group had a high level of autonomy in the manner it chose to assemble, operate, and deliver its contribution to the think piece. Typically, the groups deployed methods such as literature and website reviews, online focus groups, online workshops, thematic analyses, and iterative feedback between groups as time permitted (given the short duration of the project).

[1] Senior scientist at MWLR, with a background in soil ecology and plant ecophysiology - appointed as an un-paid member of Quorum Sense board of governors and part-time seconded to Toha Foundry while the think piece was being completed

[2] Sheep & beef farmer, independent social researcher, and project extension manager for Quorum Sense

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In te ao Māori, the origins of the universe and our world, including humanity, can be traced through a series of ordered genealogical webs that go back hundreds of generations to the time of enlightenment (te ao mārama). This genealogical sequence is known as whakapapa, and it places humanity in an environmental context that is related to all other components of the natural world (Harmsworth & Roskruge 2014).

Based on this relational understanding of our world, the well-being of humanity is bound in a reciprocal relationship to the viability and vitality of the natural world. To ensure our collective well-being, cultural experts (e.g. tohunga, kaitiaki, rangatira) use deeply encoded systems of mātauranga, tikanga, and kawa to guide tangata whenua in enacting their responsibilities as kaitiaki or caretakers of this balance in their tribal territories (Mead 2003).

Over time and for a range of reasons linked to a settler agenda (Hutchings et al. 2017; see Williams 2013 for a contemporary context), the prevalence and ability of tangata whenua to listen to the land, read the signals in the world around us, and enact our responsibilities as kaitiakitanga has diminished (Kawharu 2002; Kingi 2008; Hutchings et al. 2017). As efforts to revitalise te reo Māori and Treaty settlements progress, however, a rekindling of whakapapa, mātauranga, and tikanga is occurring across social, cultural, environmental, and economic platforms.

In enterprise and trade, te ao Māori brings a style of decision-making that is based on relationships and values (e.g. kaupapa Māori outcomes; Awatere et al. 2017). It seeks to balance out profitability and the growth of the asset base with the reconnection of its peoples, as an integral part of the revitalisation of ancestral landscapes (Kingi 2008, 2013; Awatere et al. 2015; Hutchings et al. 2017; Rout et al. 2018). Although there is diversity in the application of customary values and principles due to factors such as enterprise type, scale, governance maturity, capability, and capacity (Hutchings et al. 2020), Māori entities that are underpinned by whakapapa and customary values can be characterised in several ways.

2 Diversified portfolios

Driven in part by the nature of Treaty redress, diversification also reflects the holistic way in which tangata whenua seek to address colonial trauma, as well as their responsibilities as kaitiaki. Through a te ao Māori lens, all enterprise types influence our collective well-being. In this sense, diversification is a strategy that enables Māori entities to spread risk and manage complex system interdependencies to achieve holistic outcomes that support the vitality of te taiao (Awatere et al. 2017).

3 Holistic and intergenerational decision-making

Mana whenua understand well-being in its most holistic sense, and enterprise is recognised as an opportunity to build and sustain multiple capitals in parallel (e.g. financial, human, environmental, and cultural capitals). For example, a small investigation by Rout et al. (2018) found that governance groups of Māori entities that have a focus on building capability and environmental performance have a positive impact on profitability, compared with non-Māori farms in the region.

4 Multi-purpose landscapes

It is increasingly common for wāhi tapu (sites of tribal significance) and mahinga kai located in productive landscapes to be maintained or enhanced and protected. A relational world view ensures that physical and spiritual connections to ancestral landscapes are valued equally, alongside commercial activities. Papatūānuku (Earth Mother) reciprocates in providing tangata whenua with flow-on benefits, such as sustained fisheries and food-gathering grounds to engage in customary harvest. For example, many Māori farms 'retire' and protect areas of cultural significance from active farming, regardless of productive capacity. The health and condition of these sites are often monitored in both scientific and relational ways.

5 Collectivisation

It is increasingly common for smaller Māori entities to form collectives, based on existing relationships and connections, to achieve economies of scale and work in co-ordinated ways to achieve aligned outcomes. These arrangements are navigated using customary principles of whakapapa and whanaungatanga, which help to maintain connections as well as boundaries between iwi, hapū and whānau. For example, the Te Hiku Forestry Collective is an agreement between landowners that uses their combined scale to own and manage activities on their lands and influence the value chain to deliver wider benefits to the tribal rohe of Te Tai Tokerau (Rangitane Marsden, pers. comm., 2018).

While a relational world view is pervasive in decision-making levels of a diverse range of enterprises, there is limited information at the implementation level of Māori entities about what tikanga-led practice 'looks like,' or the impact of such practice, particularly at scale. This is especially true for enterprise types that use natural resources to grow, harvest, and manufacture food & fibre products. In the agri-food and fibre sector, the expression of tikanga-led practice has been maintained by a core of small- and medium-scale verified hua parakore and te waka kai ora – Māori organics practitioners and producers over the last decade (e.g. Hutchings et al. 2012, 2020; Hutchings 2015; also see Carney & Takoko 2010 for a description of the hua parakore pathway).

Their main point of difference from existing alternative agricultural systems, e.g. organics and US based models of Regenerative Agriculture (RA), is that they are free of GMO and synthetic inputs. From a te ao Māori perspective, the use of such products disrupts the

whakapapa and vitality of the natural world. The farming and gardening practices used by practitioners reinforce the relationships between tāngata and whenua through encouraging growers to engage materials and methods that are suited to a particular place and cultural narrative, rather than a particular system. There has also been a proliferation of community- and local-scale kai māra (gardens/orchards) recently (Hutchings et al. 2020). These community-led initiatives, as well as tertiary-level courses offering customary practice and management qualifications (Te Whare Wananga o Awanuiarangi 2020; Eastern Institute of Technology 2020) are helping to reinstitute whakapapa and pass on the mātauranga and tikanga on customary crops (e.g. kūmara and taro), and heirloom species (vegetables and fruits).

More recently, an emerging group of large and medium-size Māori entities that are scaled for large export markets have been exploring ways to embed tikanga-led practices in the way their farms, orchards, and forests operate. These efforts represent some of the next steps for many Māori entities in an ongoing commitment to enacting duties as kaitiaki. While alternative agricultural systems may offer tangata whenua some tools and practices that help them to achieve more holistic outcomes, these systems cannot address the deep cultural and relational shifts required to benefit our collective well-being. For tangata whenua to know what authentic tikanga-led practice 'looks like,' it is important that any analysis of the state of knowledge about shared and unique on-farm practice engages a process that empowers tangata whenua to be the owners and crafters of their unique and shared knowledge.

Overall, the diversity of farming practice across scales is contributing to a rekindling and growing knowledge base about what tikanga-led practice can 'look like' in different places, scales, and contexts. The systems and practices that evolve from this process will be unique to Māori entities. To be ready to engage meaningfully with emerging systems such as RA, Māori entities and tangata whenua will require the resources and time to consolidate a diverse and often invisible landscape of activities to establish a collective understanding of tikanga-led practice. As such, te ao Māori enterprises that are led by whakapapa and customary knowledges represent an opportunity to fundamentally rethink existing norms attached to food & fibre systems in Aotearoa New Zealand (Hutchings et al. 2017).

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