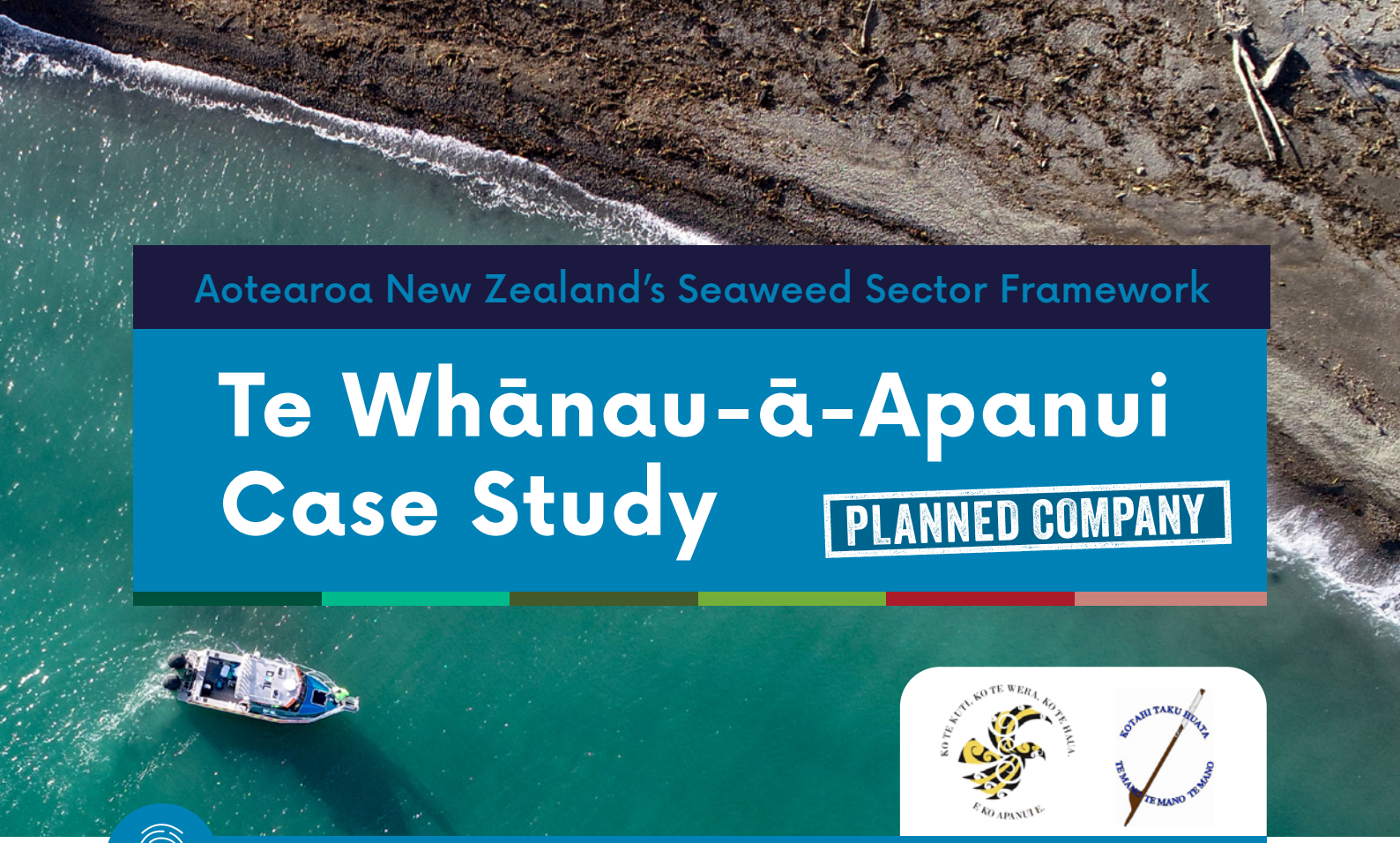

Aotearoa New Zealand's Seaweed Sector Framework

Te Whānau-ā-Apanui Case Study

PLANNED COMPANY

Company Profile

Markets

- Aquaculture
- Construction
- Carbon offset
- Aviation fuel

Products

- Spat / seed
- Carbon sequestering building products (contain seaweed or mussel shell)
- Blue carbon credits
- Bio-fuel for aviation

Seaweed species

- *Ecklonia radiata*
- Others as opportunities present

Supply chain

- Plan to supply juvenile seaweed from on-land hatchery
- Seaweed will be grown on marine farms and stabilised after harvest
- Processing will be in local communities where possible

Selling points

- Marine guardians
- Social impact
- Māori culture

Contact Information

www.apanui.co.nz

Te Whānau-ā-Apanui

Origin story

The interest of Te Whānau-ā-Apanui in seaweed has its origins in the 17th century when Apanui Ringamutu, the founding ancestor, was given territory on the east coast of the North Island. The territory extends from Te Taumata-a-Apanui (between Tōrere and Hāwai) to Pōtaka. The 13 hapū /sub-groups are situated along a narrow coastal strip in the eastern Bay of Plenty.

Over the hundreds of years since, the Iwi/tribe has maintained a deep connection to the moana/sea through tikanga/customs and kaitiakitanga/guardianship that form a contract with Tangaroa/God of the sea. In return, the Iwi has fished and harvested kai moana/seafood.

By the early 1900s, whaling had become a cooperative enterprise for Te Whānau-ā-Apanui and proceeds were devoted to community projects. Agriculture was also significant with native bush felled to clear the way for cattle and sheep stations, and small dairy farms.

Following the second world war, the Iwi experienced significant social change including migration to major centres for work opportunities as small-scale farming operations became uneconomic. The loss of bus connections, railway services, and the post office had a major impact on the community.

TWA Holdings, on behalf of the Iwi has established commercial fishing activities going back into the 1980s. This includes several species of finfish quota and live crayfish exports.

In recent years, significant aquaculture investments have been made in the area. Neighbouring Iwi Whakatōhea has been at the forefront of establishing offshore mussel farming, including the development of a mussel processing facility in Ōpōtiki. Similarly, the government has invested into developing the Ōpōtiki harbour. This helped to catalyse the establishment of Te Huata to spearhead the Iwi's aquaculture developments, including a substantial mussel spat research project and plans for the development of a $40-50m mussel spat hatchery in Hauruia (near Te Kaha).

Growth aspirations

Te Whānau-ā-Apanui is well advanced in Treaty settlement negotiations with the Crown, and in developing a commercial blueprint to underpin the social wellbeing of the Iwi. More recently the Iwi has also negotiated a further 5,000 hectares of consented seawater space for their access and use.

To help bring this vision closer, Te Huata (on behalf of hapu) has also prepared a resource consent application to the Bay of Plenty Regional Council for 10,000 hectares of additional seawater space. This will enable further significant aquaculture development; being spearheaded by Dr Haydn Read. *"We are keen to pursue an agile adaptive aquaculture management planning approach in this consent to achieve the outcomes we all seek."* Alongside the commercial imperatives, the consent application will also include inshore seawater space with provisions for pilot farms to support early-stage research and commercial trials.

Case Study

The Iwi's aquaculture vision includes seaweed as part of a multi-species aquaculture approach alongside other species such as mussels (as noted above), oysters, scallops, and others. On-land hatchery infrastructure will supply these different species, and on-water farming operations will grow these within a regenerative ocean farming model. Cooperative style infrastructure that supports hapu and whānau participation is being planned.

The Iwi wants to combine mātuaranga Māori / Māori knowledge and data driven innovation in its approach to seaweed and aquaculture more broadly. Partnering with the best companies in the world early on is another important strategy to access knowledge, scale, and markets. This is evident in a partnership with Blu3, a commercial seaweed producer in the United States with global interests.

Barriers to growth

The Iwi is still in the early stages of planning its seaweed aquaculture and product vision so hasn't encountered many direct barriers to growth yet. However, it expects regulatory challenges ahead for consenting water space but Dr Read believes the Iwi, and Māori generally, are uniquely positioned to overcome any difficulties working closely with local and central Government.

Current scientific and regulatory settings for seaweed are seen as being overly risk averse, seeking perfect knowledge and no biosecurity risk, even when applied to farming native species. *"The nature of the current Resource Management Act settings makes the developments of aquaculture difficult – there is simply never enough science to make a genuinely informed decision."* The current marine farming consent process focuses on making long-term, static decisions, and does not readily support dynamic, adaptive trials to provide more certainty where it is needed.

Funding is a challenge for any aquaculture start-up and is particularly challenging for seaweed with the absence of successful commercial hatchery and farming examples locally. Treaty settlement will provide some inter-generational capital for the Iwi, but it doesn't readily match the risk profile and commitments required for investments at pace and scale. Outside capital (including from government) will also be needed to realise its potential.

"New Zealand's aquaculture industry is predominantly based on monoculture farming of three species using methods that have not noticeably evolved since the introduction of marine farming. There is resistance among planners and industry to farm new species or trial overseas aquaculture methods." New Zealand was originally an aquaculture pioneer and Dr Read believes that Māori are well positioned to take innovative, long-term investment approaches reminiscent of times gone by.

Required sector responses

The Iwi is applying for funding from the MPI Sustainable Food and Fibres Futures Fund to examine the genetic profiles and suitability of certain New Zealand seaweed species / products providing commercial returns. It believes Government financial support for sector pioneers is important and that the wider sector will benefit from the pathways 'walked' by pioneers.

The consenting of marine space along with fisheries and aquaculture regulations must adjust to support relatively low risk seaweed farming trials and commercial innovation. Where these trials prove benefits, there should be a clear pathway to scale for investors, according to Dr Read. *"Pushing the boundaries of current conventions where science, commerce, sustainable environmental practices, and regulation can sit comfortably at the same table is a must."* There also needs to be more consistency in decision making by regional councils across New Zealand to help reduce investment risk.

Te Whānau-ā-Apanui believe that the recently established Aotearoa New Zealand Seaweed Associate (ANZSA) is an important step to providing sector leadership. It will be important that Māori participation in the executive and membership is strong going forward. This will also help ANZSA to influence government policy, science research, and commercial dialogue with other sector leaders.

The Iwi believe that standardisation of seaweed sector data (e.g., data dictionary) and a seaweed research repository are needed along with protection of unique names, compounds, and mātauranga Māori. The latter is particularly important to Māori participation in the sector as they have seen the loss of this in other sectors to local and overseas commercial interests.

About Sustainable Seas Challenge

Our vision is for Aotearoa New Zealand to have healthy marine ecosystems that provide value for all New Zealanders. We have 60+ research projects that bring together around 250 scientists, social scientists, economists, and experts in mātauranga Māori and policy from across Aotearoa New Zealand. We are one of 11 National Science Challenges, funded by Ministry of Business, Innovation & Employment.

For more information on this project, visit:
www.sustainableseaschallenge.co.nz/our-research/building-a-seaweed-economy

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