



Te Puni Kōkiri
REALISING MĀORI POTENTIAL



Ahumoana Ahutāngata

*Aquaculture Development in New Zealand:
Scientific and Technical Information to
Inform Māori*



OTHER SOURCES OF INFORMATION

Learn more about aquaculture and what participation in the industry might mean for you and your iwi. Contact your Te Puni Kōkiri regional office for a copy of *Ahumoana Ahutāngata, Aquaculture Development in New Zealand: Scientific and Technical Information to Better Inform Māori* or download from:

National Institute of Water & Atmospheric Research:
www.niwa.co.nz

Ministry of Fisheries:
www.aquaculture.govt.nz

Te Puni Kōkiri:
www.tpk.govt.nz

Te Puni Kōkiri also produced a series of information sheets and an introductory publication. These resources can be downloaded from the Te Puni Kōkiri website:

- Māori and Aquaculture Development
- Getting into the Aquaculture Industry
- The Aquaculture Industry
- Roles and Responsibilities in Aquaculture
- Business Services for Aquaculture
- Aquaculture Science Providers
- The Aquaculture Settlement
- Planning for Aquaculture

Te Kāwanatanga o Aotearoa

The New Zealand aquaculture industry is poised for expansion, and Māori will play a prominent part in the industry in these exciting times. Māori are already significant players in New Zealand's aquaculture industry. Their role is expected to grow in the coming years.

Kaimoana has always been an important part of Te Ao Māori: the collection and sharing of kaimoana is an expression of manaakitanga; shells and bones were used for adornment and as tools; and the humble pāua played a role in Kahungunu's courtship of Rongomaiwahine. Considering this long-established relationship, Māori are well-positioned to take advantage of opportunities to develop and lead the emerging aquaculture industry.

There are many examples of active 'farming' of shellfish in Māori history, such as transplanting pāua from distant beds to beds closer to kainga, the customary practice of transferring toheroa from one bed to another to enhance stocks, and oyster enhancement practices of transferring rocks to known areas of oyster spatfall to increase the surface area for oysters to grow. By using this history and embracing new technologies to further develop an environmentally sustainable industry, Māori will benefit socially, economically, and culturally.

More recently, Māori have employed modern aquaculture production techniques. Māori are significant business partners in successful aquaculture developments in Hauraki and Te Tau Ihu.

AHUMOANA AHUTANGATA: WHAT IS THE DOCUMENT AND HOW CAN IT BE USED?

The National Institute of Water and Atmosphere (NIWA) were commissioned by Te Puni Kōkiri to provide Māori with scientific and technical information to inform their decision-making on aquaculture-related issues.

Aquaculture Development in New Zealand, Scientific and Technical Information to Inform Māori includes information about aquaculture practice, policy and governance worldwide. It also discusses how and why iwi should and can participate in the development of New Zealand's aquaculture industry.

The document is made up of three parts.

Part 1 provides an overview on current aquaculture methods, species and production, from both the global and the New Zealand perspective. This information sets the scene for how aquaculture has been shaped locally and internationally, and provides the reader with details on how aquaculture production has rapidly increased in line with consumer demand and market trends.

While rapid global growth in this industry has been realised in many other countries throughout the world, New Zealand has witnessed comparably weaker growth. Some of the challenges which have attributed to this slow local growth are addressed in Part 1.

One of the key messages in this section is that Māori need to be familiar with and involved in all aspects of the industry, as well as being aware of the agencies who provide facilitation, information and advice for entering the industry and promoting products and success down the track. It is also vital for Māori to understand that aquaculture in New Zealand can be a high risk venture, typically has high capital and operating costs, generally requires large scale production to achieve a good return on investment, and often the return comes only after a prolonged period of investment.





Part 2 of *Ahumoana Ahutangata* takes a closer look at the scale of growth and potential for aquaculture at a regional level.

From Te Tai Tokerau in the north to Canterbury in the south, ten regional scans are presented to allow readers a more detailed look at what type of species and growing techniques may be best suited to their coastline.

The majority of fish and shellfish farming in New Zealand occurs in the Marlborough, Coromandel and Northland regions, with smaller operations also present in Auckland, Southland, Tasman and Golden Bays, and Canterbury.

One of the advantages of the regional scans is that aquaculture is regulated by regional authorities and this section of the publication highlights some key issues for both councils and investors keen to develop aquaculture in their region.

Part 2 also covers the potential for development of selected regions and the available infrastructure, as well as the regulatory environment of regions.

Part 3 of *Ahumoana Ahutangata* includes illustrated reports on five species: pāua, oysters, mussels, kingfish and tuna (freshwater eels).

While aquaculture in New Zealand is dominated by mussels, oysters and salmon, it is recognised that new, higher valued species need to be assessed for aquaculture in order for the industry to achieve growth objectives (such as

a New Zealand aquaculture industry valued at \$1 billion industry by 2025).

These reports, separately authored by NIWA experts, provide descriptions of life cycle characteristics, world and New Zealand production and farming techniques including processing, marketing and economics, as well as production constraints or bottlenecks. The five species were chosen both for their potential for development in New Zealand, and to represent a range of commonly used aquaculture technologies that may be applied to other species.

In much the same way as the agriculture and forestry sectors have benefited from scientific advice, the aquaculture industry in New Zealand is well placed to do the same. Māori are advised to develop strong relationships with industry and science providers in order to gain an understanding of which species may be best suited to them in order to achieve their aspirations for iwi, hapu and whānau.

Ahumoana Ahutangata has been developed to support *Māori me te Whanaketanga Ahumoana, Māori and Aquaculture Development* (Volkerling, 2007), by providing current scientific and technical knowledge. It is intended to provide Māori with an information resource on why and how iwi can participate in the development of New Zealand's aquaculture industry.

The compilation of the information into one document gives Māori a nationwide perspective to supplement the regional

emphasis of the 10 regions covered in the report. These documents do not discuss the regulations or planning requirements for Māori as they have been addressed in previous publications.

IS AQUACULTURE IN NEW ZEALAND SUSTAINABLE/ ENVIRONMENTALLY FRIENDLY?

New Zealand's isolation and geography has the benefit of providing over 5000 kilometres of coastline and pristine waters. Independent and high profile recognition of the New Zealand aquaculture industry's commitment to environmental sustainability has come from the U.S based, Blue Ocean Institute. This conservation organisation rated New Zealand Greenshell™ Mussels as one of the top two sustainable seafood's in the world in their *2005 Guide to Ocean Friendly Species*.

As tangata whenua and kaitiaki, Māori bring a unique set of values to the industry in which environmental sustainability is a key factor in the long term success. The aquaculture industry adheres to the Environmental Codes of Practice (ECOP) to ensure its activities are environmentally responsible and sustainable. The ECOP's direct best industry practices throughout growing, harvesting and processing, to minimise any potential effects on the environment.

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