

# THE NEW ZEALAND AQUACULTURE STRATEGY





The New Zealand Aquaculture Strategy was commissioned by the New Zealand Aquaculture Council with the assistance of the New Zealand Seafood Industry Council and the Ministry of Economic Development.

The strategy was written by Mike Burrell and Lisa Meehan of LECG Ltd, with the assistance of Sally Munro of Munro Duignan Ltd, and input from industry, government, iwi, and other stakeholders.

Published by Creative Design Advertising Limited, July 2006.

Photos:

Cover photo - Gilbert van Reenen - [www.cleangreen.co.nz](http://www.cleangreen.co.nz)

Kete of shellfish - Latitude Nelson

Other photos kindly donated by:

Eoin Jury, NIWA, New Zealand Aquaculture Magazine,

New Zealand King Salmon, NZMIC, NZTE,

Queen Charlotte College, SeaFIC, Sam Young



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## CHAIRMAN'S FOREWORD



Aquaculture is the world's fastest growing primary industry. It is expected that by 2030 aquaculture will match the wild fisheries catch.<sup>1</sup>

With our clean green environment, extensive coastline, and kiwis' ability to ingeniously resolve problems, New Zealand is in a great position to capitalise on the growth in aquaculture and be a major part of this food producing revolution.

New Zealand's aquaculture products already have a great reputation both at home and abroad. The flagship species are the Greenshell™ Mussels, followed by King Salmon and Pacific Oysters. Abalone is a new and upcoming species, and there are a number of exciting species just waiting to be realised commercially.

To achieve our potential, the New Zealand aquaculture industry needs to identify and overcome the barriers that are inhibiting growth. The primary reason for developing the Aquaculture Sector Strategy is to lay down a structured path for sustainably developing this growth. This Strategy has been prepared in conjunction with participants from all sectors of the seafood industry, iwi, government departments, regional and local governments, research providers and NGOs.

The aim for the New Zealand aquaculture industry is to produce \$1 billion of product by 2025. This ambitious goal will put aquaculture on a footing equivalent to the New Zealand wine industry.

Aquaculture not only will bring export dollars into New Zealand, but will also help rejuvenate regional New Zealand with opportunities for employment and service industries. Iwi will also benefit from this growth, as their future position in aquaculture is an important component to our success.

On behalf of the Aquaculture Industry I would like to thank Ministers Anderton, Mallard and Benson-Pope for their support for the industry, which will help us to achieve our goal.

Further thanks to Dr John Glaister, Chief Executive of Fisheries for his support in making this strategy happen.

Also appreciation must go to LECG who pulled this strategy together.

I would also like to thank the mussel, salmon, oyster and paua groups, regional associations, Iwi, and the marine farmers of New Zealand, who get out on the water, whatever the weather, and who have supported and given invaluable input to the strategy. From this input, the strategy will not end up under a pile of other magazines, but will provide the pathway to realising the future benefits of aquaculture to New Zealand.

A handwritten signature in black ink, reading 'Callum McCallum'. The signature is stylized and cursive.

**Callum McCallum**  
**New Zealand Aquaculture Council**

<sup>1</sup> The State of World Fisheries and Aquaculture (2004) (Rome: FAO), p. 153.

## MESSAGE FROM KEY MINISTERS



Trevor Mallard



Jim Anderton

Aquaculture is a vital part of New Zealand's future and the Government is proud to have supported the Aquaculture Council in the development of the Aquaculture Sector Strategy. It provides a strategic framework for the development of an industry focussed on sustainable aquaculture producing premium and innovative products. This strategy will influence decisions and the future direction of the industry for a generation to come.

Economic transformation is one of the Government's top priorities for the next decade as we continue our work to build New Zealand into an export-led, innovative and high wage economy. The Government views aquaculture as a valuable sustainable industry that has potential to assist economic transformation nationally and regionally. Indeed, it is hard to imagine a future New Zealand economy that does not gain significant value from its marine resources. There are clear opportunities for growth and innovation in this sector.

The initiation of this project last year marked a key point in the development of the aquaculture industry. It was recognition that the aquaculture industry has become an industry of national importance. It coincided with a new aquaculture regime being put in place. It also recognised that future industry

growth will require the cooperation of industry, central, regional and local governments, iwi and the general community.

The past year has seen a spirit of "working together" in a way that never happened before. We must capitalise on that spirit of cooperation and build a sustainable aquaculture industry. We are confident that the Aquaculture Strategy will provide a solid framework to build on our achievements to date.

It is pleasing to see that the aquaculture industry has a strong sense of ownership of the strategy and what it needs to do to optimise sustainable growth of the sector.

However, the pace of change in the global food industry continues. To keep up, we need to continue to work cooperatively to identify issues of concern and find ways of moving up the value chain. Through this collaboration we are building an internationally competitive industry.

The Government is committed to working with industry and the general community to build a consensus and partnership that will help improve the value and prosperity of this sector. We urge you to join New Zealand Aquaculture Ltd in making the most of this opportunity. Now is the time to get on board this exciting journey.

A handwritten signature in black ink, appearing to read "Trevor Mallard".

**Trevor Mallard**  
Minister for  
Economic Development

A handwritten signature in black ink, appearing to read "Jim Anderton".

**Jim Anderton**  
Minister of Fisheries



## MESSAGES FROM INDUSTRY STAKEHOLDERS

The New Zealand Seafood Industry Council (SeaFIC) welcomes and is strongly supportive of the Aquaculture Sector Strategy. SeaFIC recognises the importance of aquaculture to the overall seafood industry and has been pleased to provide resources to assist in the development of the strategy.

However, we also recognise that the real test of any strategy is during the implementation phase. For aquaculture this will require a totally committed and a co-ordinated approach from both central and local governments and all appropriate industry organisations. SeaFIC is committed to working with the aquaculture sector to assist in the realisation of the strategy's vision.

For New Zealand to prosper as a nation in the future we will need increased wealth creation from all our primary industries. The seafood sector throughout the world has recognised that the demand for seafood in the future will only be satisfied by further growth in the aquaculture sector. New Zealand in many respects has an ideal environment to participate in that growth. By comparison with many countries we have a huge area of coastal waters - we have an innovative and skilled aquaculture sector - we have world-class scientists and research facilities and we have available capital. We now also have a plan.

The Aquaculture Sector Strategy points the way to the future and we all need to ensure the strategy is turned into reality. SeaFIC is certainly determined to play its part.

**Dave Sharp**  
**New Zealand Seafood Industry Council**

The New Zealand Greenshell™ Mussel Industry has grown from small beginnings in the 1960s, nurtured by the innovation and cooperation of some dedicated visionaries to the embodiment of success and sustainability that it is today. It certainly wasn't an easy road, and there's still a journey to come, but the New Zealand mussel industry is proud of its product, proud of its heritage and excited about the prospects for the future.

Greenshell™ Mussels are the only native species that New Zealand exports to any great degree. This unique and truly kiwi icon is becoming one of the world's most sought after shellfish with an international reputation as a sustainably farmed, eco-friendly seafood.

We believe that the strategy will launch both the mussel industry and the wider aquaculture industry into a new era of growth and development and that through implementation of this strategy we will achieve the vision of \$1 billion by 2025.

I'd like to personally thank the aquaculture industry for the great deal of time and energy that its members have provided towards this united vision for a successful future for New Zealand aquaculture. I'm looking forward to seeing New Zealand aquaculture take its rightful place on the world stage of sustainable seafood and enabling it to provide the pathway to environmentally responsible regional growth.

**Peter Vitasovich**  
**New Zealand Mussel Industry Council**



Dave Sharp



Peter Vitasovich



Jim Dollimore

The New Zealand Oyster industry is positive about increasing production to help the aquaculture industry achieve the \$1 billion target by 2025.

Water quality is our main advantage when dealing in the global markets, and New Zealand is fortunate enough to have an environment that allows oysters to be consumed raw. This is a distinct advantage that our product has over oysters produced in many parts of the world.

Increased oyster production in northern New Zealand will be invaluable to the coastal communities in these regions where unemployment is prevalent. Iwi are also a major participant in the oyster industry, and will also benefit from the growth of the industry.

The oyster industry is committed to the Aquaculture Sector Strategy and is looking forward to forging partnerships with central and regional government, local communities, and all those involved in the industry, to realise our industry's ambitious goal.

**Jim Dollimore**  
**New Zealand Oyster Industry Association**

Finfish farming in New Zealand is in its infancy compared to developments overseas, yet there is huge potential here to further develop an already well-managed finfish industry. Spatial requirements are very small yet the potential benefits for New Zealand are great. New technologies and new species are all waiting in the wings and with further development could readily be commercialised in New Zealand.

I am optimistic that as a country we are gaining momentum, the challenge now is for all parties to assist in the successful

development of aquaculture so that it can move forward and take its rightful place as a significant contributor to the social and economic well being of New Zealand. This guiding document is the start of what I sincerely hope will be a journey in partnership with others that will enable participants in the finfish industry and hence New Zealand to prosper.

**Mark Gillard**  
**New Zealand Salmon Farmers' Association**

Tere ana te tai  
Ranga ana te ika  
Haoa e ora ai te iti me te rahi

The Takutai Trust is pleased to have participated in the development of this strategy. Māori, through Aotearoa Fisheries Ltd and other holdings, already have a substantive role in aquaculture. With the implementation of the aquaculture settlement over the next eight years and beyond Māori, through iwi organisations, will increase their participation and share of New Zealand aquaculture. Importantly iwi will be involved in aquaculture wherever it occurs in New Zealand. The strategy, along with the aquaculture settlement package, will contribute to regional development including not only the economic development of iwi, but also the success of the industry as a whole.

As the strategy evolves, it will be important to keep an eye on the market drivers for aquaculture. The development of new ventures and new growing areas must be driven by commercial realities. We look forward to seeing the industry achieve its target of at least \$1 billion of sales by 2025.

**Shane Jones**  
**Te Ohu Kai Moana Trustee Limited**



Mark Gillard



Shane Jones

# BUILDING A BILLION DOLLAR SECTOR

Following ten years of rapid growth, New Zealand's aquaculture sector has emerged in a strong position for continued growth that will lead it into a billion-dollar industry in the next 20 years.

This strategy sets a sales target for the aquaculture sector of \$1 billion<sup>2</sup> by 2025. This target is equivalent to New Zealand's wine and wool industries. The strategy describes the actions that industry, government, iwi, local government, science providers, and other stakeholders will need to take to reach the billion-dollar goal.

The strategy proposes the establishment of a new national organisation for the sector. This will be the lead agency for implementing the strategy.

Recently the government has taken a much more proactive role in promoting the development of aquaculture, which is evident through the inclusion of the sector on the government's economic transformation agenda. The strategy sets out some of the important ways government can continue to support the development of the sector.

The strategy highlights the importance of innovation in accelerating the growth rate of the sector. This includes production and process innovations for current products, as well as innovations in new species and products, underpinned by sound market knowledge.

**“THE KEY TO THE FUTURE SUCCESS OF NEW ZEALAND AQUACULTURE IS ONGOING INVESTMENT IN INNOVATION AND KNOWLEDGE AND MAINTAINING NEW ZEALAND'S NATURAL COMPARATIVE ADVANTAGE.”**

## *AQUACULTURE: A GROWING AND INNOVATIVE INDUSTRY*

New Zealand's new aquaculture laws took effect in 2005 and introduced a much greater role for regional and local government - both in terms of their regulatory role and their regional development role. The strategy sets out how regional and local government and economic development agencies can work in partnership with industry, government, iwi, science and training providers, and communities to promote environmentally sustainable aquaculture in New Zealand.

Māori form an integral part of the sector. The settlement package, which formed part of the reforms, offers an opportunity for further development for iwi and for the industry as a whole.

Underpinning the aquaculture development strategy is a commitment to environmental sustainability. Aquaculture provides an opportunity for environmentally sustainable economic growth and relies on clean waters for its existence. The strategy outlines how the sector can build on its record of sustainability and use it to promote the growth of the sector.



<sup>2</sup> In 2006 NZ dollars.





## A VISION FOR GROWTH

### VISION

The New Zealand aquaculture sector is recognised within New Zealand and around the world as producing healthy, high quality, environmentally sustainable aquaculture products.

### GOAL

The goal of the strategy is that by 2025 the New Zealand aquaculture sector will have sales of \$1 billion per annum.<sup>3</sup>

### GUIDING PRINCIPLES OF THE STRATEGY

The strategy will take account of the following principles:

- The strategy is market-driven, industry-led, commercially viable, and sector-wide
- It requires the collective action of industry participants
- Growth will be driven by innovations in existing and new space, species, products and markets
- Growth will take place within an environmentally sustainable framework
- The strategy will be implemented through a partnership between industry and government, communities, iwi, regions, and research/education/training providers

THE GOAL OF THE STRATEGY IS  
THAT BY 2025 THE NEW ZEALAND  
AQUACULTURE SECTOR WILL HAVE  
SALES OF \$1 BILLION PER ANNUM

<sup>3</sup> In 2006 NZ dollars.



## THE TEN-POINT PLAN

IMPLEMENTING A SECTOR STRATEGY TAKES THE EFFORTS OF INDUSTRY, CENTRAL, REGIONAL AND LOCAL GOVERNMENT, IWI, SCIENCE PROVIDERS, AND A RANGE OF OTHER STAKEHOLDER ORGANISATIONS.

The strategy sets out the main actions that can be taken at the sector level to promote higher levels of growth in the aquaculture sector. The strategy works from an assumption that to some degree growth will be dependent on factors beyond the scope of this strategy, including:

- Macroeconomic factors that affect competitiveness
- The decisions and actions of firms within the sector
- Consumer demand, both domestic and international
- Government policies

The strategy focuses on actions that are within the control of the industry acting cooperatively as a sector, or working in partnership with iwi, regions, communities, science, education and training providers, and government.

In order to meet the \$1 billion target the aquaculture sector needs to follow the example of other high value sectors in New Zealand and of other fast-growing aquaculture sectors overseas. The following ten-point plan sets out the key actions that will be required to boost the growth rate of the sector so that it meets its goal.

### THE TEN-POINT PLAN WILL:

1. Establish a new national sector organisation
2. Strengthen the partnership with government
3. Strengthen other stakeholder partnerships
4. Secure and promote investment in aquaculture
5. Improve public understanding and support for aquaculture
6. Promote Māori success in aquaculture
7. Develop the market for New Zealand aquaculture products
8. Maximise opportunities for innovation
9. Promote environmental sustainability and integrity of aquaculture
10. Invest in training, education and workforce promotion

THE TEN-POINT PLAN SETS OUT KEY ACTIONS TO BOOST  
THE GROWTH RATE OF THE AQUACULTURE SECTOR

# PART ONE: IMPLEMENTATION THROUGH PARTNERSHIP

THE FIRST THREE OBJECTIVES CONTAIN ACTIONS WHICH ARE CRUCIAL FOR THE SUCCESSFUL IMPLEMENTATION OF THIS ENTIRE STRATEGY, AND ARE AS FOLLOWS:

## 1. ESTABLISH A NEW NATIONAL SECTOR ORGANISATION

For some years the industry has sought to find a collective over-arching representation, that had national recognition, avoided duplicated effort and cost, and achieved support and buy-in from industry participants. The development of an aquaculture strategy has provided an opportunity for establishing a new national body for the sector.

It is proposed that the new organisation be called New Zealand Aquaculture Ltd. It will be formed through the amalgamation of the New Zealand Aquaculture Council and the species groups (Mussels, Salmon and Oysters). The detail of the new organisation is currently being worked through with the membership of the stakeholder

groups<sup>4</sup> and it will be launched later this year. Proportional representation will ensure the organisation adapts to changes within the sector (e.g. the emergence of new species).

The objectives of the new body are to:

- Provide a unified ‘overarching’ structure representing all commercial aquaculture activity and participants
- Present one voice for aquaculture
- Manage and promote generic aquaculture activities
- Facilitate species-specific activities

THE NEW NATIONAL ORGANISATION WILL REPRESENT ALL COMMERCIAL AQUACULTURE PARTICIPANTS AND PRESENT ONE VOICE FOR AQUACULTURE

ACTION	PARTNERS*	TIME
Establish New Zealand Aquaculture Ltd with the support of the aquaculture species groups, regional aquaculture organisations and Māori.	<b>NZAC</b>	December 2006
Build the capacity of the national body.	<b>NZA</b>	2006/07
Coordinate the implementation of the Sector Strategy in cooperation with industry, government, regional, service provider, iwi, the Takutai Trust and community stakeholders. <sup>5</sup>	<b>NZA</b> Stakeholders	2006 onwards
Establish a monitoring and evaluation process to measure the impact of the strategy.	<b>NZA</b>	2006 onwards

\* Lead partners are indicated in bold.

<sup>4</sup> Note that existing iwi/Māori participants in the industry will be represented by the existing industry bodies. In addition iwi will be invited to appoint an associate Director to the new organisation. Te Ohu Kai Moana Trustee Ltd will participate on behalf of those iwi who have yet to receive assets through the settlement package.

<sup>5</sup> Stakeholders are organisations that have agreed to be responsible for implementing an action within the strategy.



## 2. STRENGTHEN THE PARTNERSHIP WITH GOVERNMENT

Experience in other OECD countries demonstrates the positive impact government can have in promoting the growth of aquaculture. The strategy includes a range of specific actions for government (see points 3 to 10). We have also included three high-level actions which will provide a strong foundation for industry's engagement with central government.

The aquaculture amendments to the RMA took effect in 2005 and introduced a much greater role for regional and local government - both in terms of their regulatory role and their regional

development role. Regional partnerships are crucial for implementing the sector strategy. Regional and local government and economic development agencies have a role in facilitating partnerships with industry, government, iwi, science and training providers, and communities to promote environmentally sustainable aquaculture in New Zealand.



### REGIONAL AND LOCAL GOVERNMENT HAVE A ROLE IN FACILITATING PARTNERSHIPS TO PROMOTE ENVIRONMENTALLY SUSTAINABLE AQUACULTURE IN NEW ZEALAND

ACTION	PARTNERS	TIME
Work with the Ministers of Economic Development and Fisheries and their Ministries to promote and develop aquaculture through the implementation of the New Zealand Aquaculture Strategy.	<b>NZA</b> MED MFish	2006
Work with government to establish an industry/government forum to assist with implementing the Aquaculture Strategy. The forum will comprise representatives from the sector and the CEOs of relevant government departments.	<b>NZA</b> MED, NZTE, MFish, TPK, MfE, DoC	2006
Seek the agreement of government to produce a national statement on aquaculture in consultation with industry, setting out its commitments to the aquaculture industry and the contents of this strategy.	<b>NZA</b> MED MFish	2006
Strengthen relationships with local and regional government.	<b>NZA</b>	2006 onwards



REGIONAL  
AQUACULTURE  
ORGANISATIONS HAVE  
A CENTRAL ROLE TO  
PLAY IN PROMOTING  
REGIONAL  
PARTNERSHIPS AND  
COMMUNITY  
PARTICIPATION

### 3. STRENGTHEN OTHER STAKEHOLDER PARTNERSHIPS

The increased regional role outlined in Point 2 means that regional aquaculture organisations (such as the Marlborough and Coromandel associations) have a central role to play in promoting regional partnerships and community participation.

There is also the potential for regional industry/science provider clusters, and these

opportunities should be explored with industry, providers, regions, NGOs, and government.

Although the present aquaculture sector is primarily shellfish and salmon, overseas experience suggests that there are potential benefits from developing and strengthening relationships with other food production sectors such as wild fisheries and agriculture.

ACTION	PARTNERS	TIME
Strengthen the inter-organisational relationships within the sector: <ul style="list-style-type: none"> <li>Between the national and regional levels</li> <li>Between NZA and SeaFIC.</li> </ul>	<b>NZA</b> Regional Aquaculture Organisations (RAOs) SeaFIC	2006 onwards
Develop (and where necessary establish) the capacity of regional aquaculture organisations to implement the strategy.	<b>NZA</b> RAOs	2006/07
Facilitate partnerships with industry, research providers, central and local government, economic development agencies, NGOs, community groups, and iwi (for iwi partnerships also see Point 6).	<b>NZA</b> RAOs Takutai Trust IAOs/RIOs	2006
Explore possibility of forming regional industry/research clusters.	<b>NZA</b> RAOs Research providers	2007 onwards
Develop and strengthen relationships with other food production sectors (including wild fisheries and agriculture) to explore potential for collaboration and diversification.	<b>NZA</b>	2007 onwards
Develop and strengthen relationships with international aquaculture organisations, starting with the Australian National Aquaculture Council.	<b>NZA</b>	2006 onwards

## PART TWO: ACTION FOR SUSTAINABLE GROWTH

THE REMAINDER OF THE STRATEGY FOCUSES ON THE ACTIONS THAT ARE NECESSARY TO GROW THE SECTOR IN AN ENVIRONMENTALLY SUSTAINABLE MANNER TO THE GOAL OF \$1 BILLION BY 2025.

### 4. SECURE AND PROMOTE INVESTMENT IN AQUACULTURE

Growth in New Zealand aquaculture will come from both current and future investment in the sector. The following actions are intended to provide a more secure planning and investment environment.

There are three components to be considered:

- The renewal of existing consents
- Creation of new Aquaculture Management Areas (AMAs)
- Security of resource consents as collateral for investment

GROWTH IN  
NEW ZEALAND  
AQUACULTURE  
WILL COME FROM  
BOTH CURRENT  
AND FUTURE  
INVESTMENT IN  
THE SECTOR

ACTION	PARTNERS	TIME
Promote greater industry involvement in regional RMA and LGA planning process (including the development of community plans and annual plans) and the review of national guidelines as they relate to aquaculture.	<b>NZA</b> RAOs Councils	2006 onwards
Encourage Councils to follow successful models relating to the protection of AMAs and the renewal of marine farm consents.	<b>NZA</b> RAOs Councils	2006 onwards
Research the potential for using “evergreen contracts” <sup>6</sup> to provide greater planning/investment security.	<b>NZA</b> SeaFIC Councils	2007
Work with, and assist, Councils to identify areas for, and establish environmentally sustainable new AMAs.	<b>NZA, RAOs</b> Councils Government <sup>7</sup> IAOs/RIOs Takutai Trust	2006 onwards
Establish a project to prepare legal analysis and a package of measures with the aim of improving the investment environment for aquaculture.	<b>NZA</b> <b>SeaFIC</b>	2007
Work with government to continually monitor and improve the aquaculture regulatory regime.	<b>NZA</b> <b>MFE</b>	2006 onwards

<sup>6</sup> Under an evergreen contract, the contract is renewed by negotiation part way through its term. It provides the holder of the contract with greater security.

<sup>7</sup> “Government” refers to relevant government departments: MED, NZTE, MFish, MFE, DoC, and TPK.



## 5. IMPROVE PUBLIC UNDERSTANDING AND SUPPORT FOR AQUACULTURE

There are opportunities to improve public understanding and support for the sector by raising the profile and improving the image of aquaculture. This can be achieved by developing a communications strategy to provide a positive and consistent national message, and a coordinated approach to sector representation with the government, media, and other agencies.

### PUBLIC SUPPORT FOR THE SECTOR CAN BE ACHIEVED THROUGH A COMMUNICATIONS STRATEGY AND A COORDINATED APPROACH TO SECTOR REPRESENTATION

ACTION	PARTNERS	TIME
Develop stronger linkages with local communities to improve public understanding and support for aquaculture (see also Point 3).	<b>NZA</b> RAOs	2006 onwards
Develop an Aquaculture Communications Strategy to: <ul style="list-style-type: none"> <li>• Promote a strong, clear and consistent national message.</li> <li>• Represent sector level interests with government, media, international agencies and other organisations.</li> <li>• Connect with the public.</li> <li>• Promote an evidence-based approach to public perceptions of aquaculture.</li> </ul>	<b>NZA</b> RAOs, SeaFIC, Research organisations, NGOs, Community groups, IAOs/RIOs	2006
Build the capability within NZA to implement the communications strategy.	<b>NZA</b>	2006



## 6. PROMOTE MĀORI SUCCESS IN AQUACULTURE

Most of the actions relating to Māori are incorporated in the various sections of the strategy. This point highlights the significance of the Māori Commercial Aquaculture Claims Settlement Act 2004 for future aquaculture development. The new aquaculture planning system incorporates a process to settle Māori claims to commercial aquaculture. Councils are required to allocate and transfer authorisations for new space to Iwi Aquaculture Organisations through Te Ohu Kai Moana Trustee Ltd, the trustee for the Takutai Trust.<sup>8</sup> A successful sector strategy will ensure that iwi, as beneficiaries of the settlement, are informed and active participants in aquaculture. The scale of potential iwi involvement in the future of the industry is such that the sector as a whole will not reach its full potential unless iwi prosper.

In addition, iwi have a range of interests as tangata whenua that are recognised in various statutes including the Resource Management Act 1991. These interests make them vitally important partners and allies in the regional development of aquaculture, quite independent of their own current and future interests in the sector.

A SUCCESSFUL SECTOR STRATEGY WILL ENSURE THAT IWI,  
AS BENEFICIARIES OF THE SETTLEMENT, ARE INFORMED AND  
ACTIVE PARTICIPANTS IN AQUACULTURE



ACTION	PARTNERS	TIME
Promote the participation of RIOs and IAOs in aquaculture development.	<b>NZA</b> Takutai Trust RAOs, IAOs/RIOs	2006/07
Develop a communications strategy that ensures iwi are well informed and facilitates active participation in aquaculture.	<b>Takutai Trust</b> <b>NZA</b> IAOs/RIOs	2006/07
Develop case studies and guidelines for successful joint ventures with Māori aquaculture ventures.	<b>Takutai Trust</b> RIOs/IAOs	2007 onwards

<sup>8</sup> Takutai Trust is the Māori Commercial Aquaculture Settlement Trust, established through the Māori Commercial Aquaculture Claims Settlement Act 2004.





## 7. DEVELOP THE MARKET FOR NEW ZEALAND AQUACULTURE PRODUCTS

Growth will continue to come from existing species and products, however experience in other New Zealand industries and in overseas aquaculture sectors suggests that significant future growth will also come from new species and products. Increasing the value of existing species and investment in new species and products will occur naturally as companies recognise the commercial potential.

The sector strategy can assist in developing the market for New Zealand aquaculture through:

- Dissemination of market information
- Generic sector-level marketing/branding
- Investment promotion
- Market access

### SIGNIFICANT FUTURE GROWTH WILL ALSO COME FROM NEW SPECIES AND PRODUCTS

ACTION	PARTNERS	TIME
Undertake a stocktake of existing market research to establish existing knowledge and identify areas for future research.	<b>NZA</b> NZTE	2006/07
Develop a sector-wide quality mark based on product certification arising from current New Zealand Shellfish Quality Assurance Programme.	<b>NZA, IWQC</b> NZFSA, NZTE	2006/07
Develop a sector-wide image/brand for aquaculture based on market research.	<b>NZA</b> NZTE	2007/08
Develop a strategy in partnership with NZTE to promote New Zealand aquaculture sector exports.	<b>NZA</b> NZTE, MFAT	2006/07
Develop an investment strategy with Investment New Zealand that builds on their recent work in this area. This will include inward and outward investment.	<b>NZA</b> INZ	2006/07
Continue to seek improvements in access to current markets and to access new markets following on from the market research programme.	<b>NZA</b> SeaFIC, MFAT, NZTE, NZFSA	2007 onwards



THE KEY WILL BE  
EXPANDING  
THE NUMBER  
AND DEPTH OF  
INDUSTRY-RESEARCH  
PARTNERSHIPS

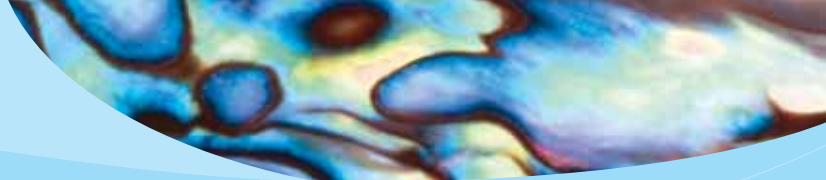
## 8. MAXIMISE OPPORTUNITIES FOR INNOVATION

New Zealand's aquaculture sector was built on innovation. Future growth will be dependent on the ability of the sector to continue innovating in order to generate a higher rate of return through a combination of practical 'on-the-water' innovations (e.g. production and process innovation), as well as applied and basic ('blue skies') research. This will include research relating to new species and products.

The research strategy will be driven by identifying the intersection of the demands of global markets, species or products in which New Zealand can secure a competitive advantage, and development opportunities that are consistent with New Zealand's planning regime and public perceptions of aquaculture.

A key to implementing this component of the strategy will be expanding the number and depth of industry-research partnerships.

ACTION	PARTNERS	TIME
Identify and expand on current innovation within the sector including formal research and industry innovations.	<b>NZA</b> RAOs, Research providers	2006 onwards
Develop a research strategy for the aquaculture sector with the following components: <ul style="list-style-type: none"> <li>• An overarching strategy for research goals for the next ten years to inform public and private investment decisions in aquaculture research</li> <li>• Matching industry research needs to both private and public sector funding opportunities</li> <li>• Addressing intellectual property issues</li> </ul> The research strategy will encompass adding value to existing products, opportunities for new species, and sustainability (including biosecurity) issues.	<b>NZA</b> Research providers Universities Aquaculture industry research investors SIL FRST	2006/07
Expand and promote new and existing industry/research partnerships that increase the overall levels of innovation in the sector and inform research priorities (see action point above).	<b>NZA</b>	2006 onwards
Work with regional councils to provide space for experimental aquaculture.	<b>NZA</b> Councils	2006 onwards
Work with government to improve the aquaculture legal framework relating to establishing space for experimental and educational aquaculture.	<b>NZA</b> MfE, DoC and MFish	2006
Increase the opportunities for the development of freshwater and land-based aquaculture.	<b>NZA</b>	2007



## 9. PROMOTE ENVIRONMENTAL SUSTAINABILITY AND INTEGRITY OF AQUACULTURE

Underpinning the aquaculture development strategy is a firm commitment to further build the environmental sustainability and integrity of the sector. Aquaculture is one of a handful of natural resource industries that can offer truly environmentally sustainable economic growth. Not only is aquaculture based on renewable resources, it depends for its existence on pristine water and therefore it has a stewardship role in assisting to protect New Zealand's aquatic

environments. This is vital to Māori participants in the industry who have an interest in ensuring that the management of aquaculture is consistent with traditional management concepts such as kaitiakitanga.<sup>9</sup> The strategy outlines how the sector can build on its record of environmental integrity and sustainability based on the adoption of environmental best practice.

UNDERPINNING THE STRATEGY IS A COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY AND INTEGRITY

ACTION	PARTNERS	TIME
Develop an advocacy role for NZA and IWQC to maintain and improve water quality, including control of land-based sources of pollution.	<b>NZA, IWQC</b> IAOs/RIOs	2006 onwards
Explore potential for collaboration with environmental NGOs.	<b>NZA</b> NGOs	2006/07
Maintain and develop the national water quality and biotoxin programmes. Industry Water Quality Committee (IWQC) will provide technical support.	<b>NZA</b> IWQC	2006/07
Establish an industry biosecurity code of practice and implement in partnership with Biosecurity New Zealand.	<b>NZA</b> Biosecurity NZ	2006/07
Develop a national environmental code of practice for the sector that feeds into the quality mark (see Point 7) and promotes good stewardship of the New Zealand's coastal waters. Develop in partnership with key stakeholders including environmental NGOs.	<b>NZA</b> NZTE, MfE, DoC, NGOs	2007/08

<sup>9</sup> Kaitiakitanga is defined in Section 7(a) of the RMA as meaning:  
“the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship.”



## 10. INVEST IN TRAINING, EDUCATION AND WORKFORCE PROMOTION

The future of the sector is dependent on investment in training and education and the ability of the sector to attract and retain a skilled workforce particularly in times of labour scarcity. The following actions propose a more proactive

approach for the sector which enhances existing links with training providers and builds new links with education providers (including tertiary providers) to ensure that services are relevant to the industry's current and future needs.

### THE FUTURE OF THE SECTOR IS DEPENDENT ON INVESTMENT IN TRAINING AND EDUCATION AND THE ABILITY OF THE SECTOR TO ATTRACT AND RETAIN A SKILLED WORKFORCE

ACTION	PARTNERS	TIME
Research the future workforce requirements of the aquaculture industry and develop an aquaculture workforce strategy based on this research.	<b>NZA</b> DoL, SITO	2006/07
Develop an education strategy for the aquaculture industry (which dovetails with the workforce strategy).	<b>NZA</b> TEC, SITO	2007
Actively engage with tertiary providers, including universities and polytechnics, to influence their education provision and support development of aquaculture-relevant programmes.	<b>NZA</b> TEC, RAOs, SITO	2006 onwards
Work with iwi/Māori to develop training that will promote their successful participation in aquaculture.	<b>NZA</b> SITO, IAOs/RIOs Takutai Trust	2006 onwards
Promote career opportunities in the aquaculture sector as part of SeaFIC's wider communications strategy.	<b>NZA</b> SeaFIC, SITO	2006 onwards



## APPENDIX I: BACKGROUND TO THE STRATEGY

THE NEW ZEALAND AQUACULTURE COUNCIL INC (NZAQC) COMMISSIONED LECG TO DEVELOP AN AQUACULTURE SECTOR STRATEGY.<sup>10</sup> THE STRATEGY AIMS TO FACILITATE SUSTAINABLE GROWTH AND WEALTH GENERATION FOR CURRENT AND FUTURE PARTICIPANTS IN THE AQUACULTURE SECTOR.

The process for developing the strategy is in three stages:

- Stage One - Strategy Development: Identifying Issues and Opportunities
- Stage Two - Sector strategy
- Stage Three - Implementation Plans and Implementation

At the end of Stage One (in February 2006) a Discussion Paper was produced which provided context for the strategy, described the current state of the New Zealand aquaculture sector, described the main issues and opportunities for the sector, brought the key issues and opportunities into a framework for consideration by stakeholders, and extracted the most important strategic themes going into the strategic planning process.

The key themes were:

- Improving the value from current products
- Exploring opportunities for higher-value products
- Improved linkages between firms, government agencies, and service providers, and between these groups

The strategy was prepared following four consultation meetings held in Nelson and Auckland in February and June 2006 and considerable additional written consultation.

Implementation of the Strategy (Stage Three) will be coordinated by the new national sector organisation (New Zealand Aquaculture Ltd) and will begin in the second half of 2006. New Zealand Aquaculture Ltd will work with agencies responsible for implementing the strategy to develop implementation plans that set out detailed budgets and timeframes for the implementation of the actions contained within the strategy.



<sup>10</sup> The NZAQC received support for this project from the Ministry of Economic Development's Sector Initiatives Fund.

## APPENDIX II: SUMMARY OF BACKGROUND PAPER

A BACKGROUND PAPER IS AVAILABLE FROM NEW ZEALAND AQUACULTURE LTD THAT PROVIDES THE DETAILED ANALYSIS UNDERLYING THE NEW ZEALAND AQUACULTURE STRATEGY. A SUMMARY IS PROVIDED HERE.

### THE STATE OF THE NEW ZEALAND AQUACULTURE SECTOR

- The sector is focused on a small number of species. The greatest contributor to the growth of aquaculture production in New Zealand has been Greenshell™ Mussels, with King salmon and Pacific oysters the other significant species.
- New Zealand's contribution to global aquaculture is about 0.02% of sales by weight.
- Aquaculture makes up about 20% of the total fisheries production value and 15% of New Zealand's seafood exports by revenue.
- The FAO predicts the world's seafood consumption will rise 35% by 2015 and the growth in aquaculture will need to meet this increased demand.
- Most mussels are exported frozen in half-shell, some are exported as frozen meat, and a small amount is prepared (canned, smoked, marinated or capsules).
- Most oyster exports are frozen in half-shell, and some are exported chilled or live.
- New Zealand aquaculture's three main export markets are the USA, Japan, and Australia.

MARKET REVENUE (2005)*			
	Export market revenue (NZ\$ FOB)	Domestic market revenue (NZ\$)	Total market revenue (NZ\$)
Greenshell™ Mussel	166	43	209
King Salmon	32	56	88
Pacific Oysters	16	12	28

\* Source: New Zealand Aquaculture Council Inc.



## LESSONS FROM OVERSEAS

- Marketing
  - All of the countries studied had national level marketing bodies.
  - Many countries are concerned with a negative public image of aquaculture.
  - Internationally, the importance of brands is increasing.
  - Producers are achieving critical mass through strategic alliances.
- Resources
  - Competition for space is a global issue.
  - Some countries lack investor research into market potential.
- Innovation
  - Most countries allocate significant resources to R&D.
  - In some countries it is recognised that market opportunities need to be identified before significant investment into R&D occurs.
  - Many countries acknowledge the importance of links between research providers, funders and industry for technology transfer.
  - Globally, most aquaculture sectors are built on a small number of species.
  - Expansion into other species, organic and “environment friendly” aquaculture have been identified as opportunities.
- Institutions
  - Many countries are strengthening sector representation through industry associations.
  - In some countries and regions partnerships are emerging between industry, local communities, NGOs, and indigenous groups.
  - Aquaculture is seen as a regional economic development opportunity for remote coastal areas of many countries.
  - Many countries lack a coordinating mechanism for aquaculture regulation.

- The following factors impact on the ability of aquaculture to exploit opportunities:
  - Complying with sustainable development principles.
  - Working to include aquaculture in the local and national social fabric.
  - Maintaining industry competitiveness.
  - Ensuring safety of aquaculture products.
  - Building a positive public image of the sector and its products.
  - Government action to promote growth of the sector.
- All countries studied support sustainable development of aquaculture.

## LESSONS FROM NEW ZEALAND'S PRIMARY INDUSTRIES

- Several New Zealand primary-sector industries have developed from niche status to significant exporters with thousands of producers.
- Once industries have gained a foothold, organisation and collaboration through industry bodies and supplier cooperatives has played an important role in providing a unified presence in foreign markets.
- New Zealand's primary industries have come to realise the importance of developing a recognisable brand, rather than seeking to compete in a commodity market.
- Branding needs to be accompanied by standards and quality assurance to promote and preserve the reputation of New Zealand products. Industry bodies and producer cooperatives have brought this about in a number of industries.
- Ensuring reliable and secure supply can be achieved through providing local producers with better information, or possibly through restricting local production (e.g. licensing).
- All emerging industries experience an initial period of slow growth followed by a period of very rapid expansion as momentum is built up. As industries mature, they enter a phase where the growth rate levels off.



## REFLECTIONS FROM SELECTED STAKEHOLDERS

IN-DEPTH INTERVIEWS WITH A SMALL SELECTION OF STAKEHOLDERS FROM THE AQUACULTURE SECTOR RESULTED IN THE FOLLOWING FINDINGS:

- **Marketing**
  - There is a need for more market research and international linkages. This is occurring in some sub-sectors (e.g. salmon).
  - Branding opportunities exist (e.g. water quality). Some species-specific branding occurs. There is potential for some sectoral branding.
  - Public perception of aquaculture is generally poor. Possible suggestions to improve this include addressing substantive issues through improved community relationships and perceptions through public relations.
- **Resources**
  - Natural resources are limited by regulation and actual space. Solutions include applying for smaller spaces, developing multi-stakeholder partnerships, and accessing overseas water space through FDI.
  - Investment into the sector was cited as important, including overseas investment.
  - Government funding sources tend to be overlooked.
  - The national skill shortage was cited as a concern and retaining skilled people was seen as a problem. Education was perceived as diffuse.
- **Innovation**
  - Commercialisation of R&D was seen as crucial and science providers are developing this capability through partnerships with industry.
  - Innovation includes improvements in process technology, new species, and new products.
  - Potential commercial species mentioned included rock lobster, flat oysters, kina, seaweed, eels, snapper, kingfish, groper, seahorse and flatfish.
- **Institutions**
  - Sector fragmentation is currently an issue, but there is a move towards greater consolidation and cooperation.
  - The role of government and its relationship with industry was seen as fundamental. The relationship between central and regional/local government was also seen as important (e.g. on national standards).
  - The relationship between research providers and industry was seen as central to ensuring research was relevant and market oriented. Providers noted market information was the responsibility of industry.
  - An overarching theme was the need for partnerships between business, government, science providers, and the community (including iwi).
- **Regulation**
  - While most acknowledged the importance of moving on from regulatory reforms, the regulatory environment was still seen as crucial (as it is in other countries).
  - Many noted Māori firms and iwi played a positive role in the aquaculture sector, including engaging in industry/government/community/science partnerships.







## SUMMARY OF KEY ISSUES

- The New Zealand aquaculture sector has come a long way, but is still in a relatively early stage, and considerable effort is needed for its potential to be realised.
- The sector is still supply-driven in the sense that much production, particularly of Greenshell™ Mussels, is determined by what producers are able to produce and when, rather than by the demands of customers.
- The major aquaculture crop, Greenshell™ Mussels, is relatively easy to produce in New Zealand. However, it is also relatively low value.
- If producers act in an uncoordinated way, this can result in a lack of information about customers and can make it difficult to respond to customer demands and to grow the market.
- On the other hand, if production is more consolidated, this helps suppliers to be more customer-focused and to compete more effectively in export markets. For instance, it is possible to invest more effectively in research and development, including market research.
- The New Zealand sector is still small. The lack of critical mass further contributes to the difficulties associated with dispersed competitive supply of any product that is not well-known or highly-valued in foreign markets. The sector's current size in part reflects constraints on the supply-side related to the availability of public space for private uses. This issue is not unique to New Zealand aquaculture, but appears to be an issue in every other aquaculture sector around the world.
- Government has an important role to play in allocating a resource that has in the past been considered free, optimally between competing uses. The aquaculture sector has an interest in an effective allocation system being established sooner rather than later, and in government giving priority to aquaculture. The Aquaculture Reform Act began this process. Both local and central government will be influenced by the apparent commercial significance of aquaculture production, which remains to be demonstrated conclusively in New Zealand.



## ACRONYMS

AMA	Aquaculture Management Area
DoC	Department of Conservation
DoL	Department of Labour
FDI	Foreign Direct Investment
FRST	Foundation for Research Science and Technology
IAO	Iwi Aquaculture Organisation
INZ	Investment New Zealand
IWQC	Industry Water Quality Committee
LGA	Local Government Act
MED	Ministry of Economic Development
MFAT	Ministry of Foreign Affairs and Trade
MfE	Ministry for the Environment
NGO	Non-Governmental Organisation
NZA	New Zealand Aquaculture Ltd
NZAC	New Zealand Aquaculture Council
NZFSA	New Zealand Food Safety Authority
NZTE	New Zealand Trade and Enterprise
MFish	Ministry of Fisheries
R&D	Research and Development
RAO	Regional Aquaculture Organisation
RIO	Recognised Iwi Organisation
RMA	Resource Management Act
SeaFIC	Seafood Industry Council
SIL	Seafood Innovations Ltd
SITO	Seafood Industry Training Organisation
TEC	Tertiary Education Commission
TPK	Te Puni Kokiri (Ministry of Māori Development)





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