# PART III Chapter 23

# **New Zealand**

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# Main characteristics of the New Zealand fishing sector

New Zealand's seafood industry sustainably harvests approximately 750 000 metric tonnes (mt) greenweight (live weight) from wild fisheries and aquaculture each year. The value of this harvest ranges from NZD 1.2-1.5 billion per annum, of which the aquaculture industry contributes about NZD 200 million per annum. Seafood exports consistently rank as New Zealand's fourth or fifth largest export earner. Domestic seafood sales are approximately NZD 150 million annually.

The Ministry of Fisheries is responsible for managing New Zealand's fisheries. It focuses on maximising the value New Zealanders obtain from the sustainable use of fisheries and protection of the aquatic environment. This goal sets the policy direction for fisheries management in New Zealand. The quota management system (QMS) provides for the management of commercial fisheries on the basis of Individual Transferable Quotas (ITQ). Restrictions are placed on the amount of quota that can be held by any one person, including their associates. These range from 10% for some species to 45% for others.

Most commercial fishing is managed under the QMS. At its heart are two types of catch limits: the total allowable catch (TAC) and the total allowable commercial catch (TACC). The Minister first sets the TAC. From this, the Minister quantifies the TACC for a particular fishing year, making allowances for recreational and Maori customary non-commercial fishing interests and all other sources of fishing. This includes the quantity required for research and an estimate of the amount taken illegally each year.

Aquaculture is an important contributor to New Zealand's economy, constituting around 20% of total fisheries value. Aquaculture is based primarily on the farming of greenshell mussels, which is the second largest seafood export item. Other important farmed species include pacific oyster, abalone and salmon. In January 2005, aquaculture reforms integrating coastal planning, aquaculture and fisheries management came into effect. The reforms provide regional councils with greater powers to manage and control the staged development of aquaculture, by requiring new marine farm developments to take place within clearly defined areas called Aquaculture Management Areas (AMAs). The new legislation has also streamlined the application and environmental assessment process for new marine farms.

The New Zealand government does not subsidise the fishery sector, but recovers costs from the commercial fishing industry. Total net transfers to the industry amounted to NZD 53 million, all of which concerned general services and a cost recovery element of NZD 31 million.

Approximately 90% by value of New Zealand's seafood production is exported, with an estimated 70% of export returns from value added to seafood post harvest. Export sales were NZD 1.27 billion in 2004 and NZD 1.26 billion in 2005.

The New Zealand fisheries sector remains under economic pressure due to a strengthening New Zealand dollar against the US dollar and a continued increase in the cost of fuel. This economic pressure has led the industry to further adapt and evolve its operations to maximise economic return.

# New Zealand - Summary statistics

Figure III.23.1. Harvesting and aquaculture production

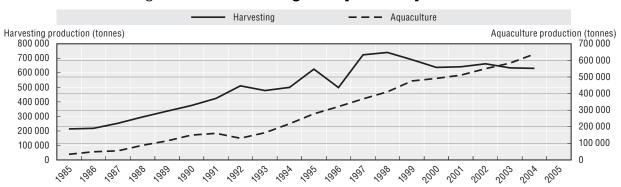


Figure III.23.2. **Key species landed by tonnage** in 2005

Squid 18%

Jack
Mackerek 10%

Hoki
22%

Figure III.23.3. **Age structure of fishers** 

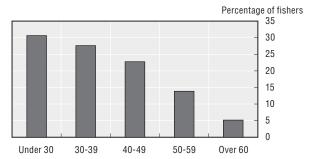


Figure III.23.4. **Evolution of government financial transfers** 

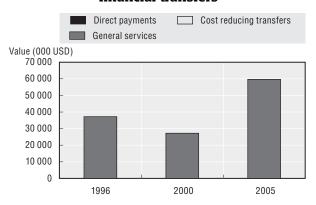


Figure III.23.5. **Trade evolution** 

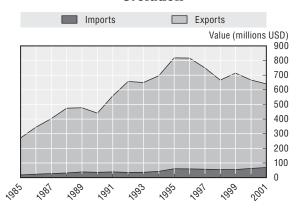


Figure III.23.6. Production profile

	1996	2005
Number of fishers	4 918	1 672 <sup>1</sup>
Number of fish farmers	n.a.	641 <sup>1</sup>
Total number of vessels	2 126 <sup>2</sup>	1 654
Total tonnage of the fleet	n.a.	172 644

n.a.: Not available.

Source: Figures III.23.1 and III.23.5: FAO; Figures III.23.2, III.23.3, III.23.4 and III.23.6: OECD.

<sup>1.</sup> Numbers in 2004.

<sup>2.</sup> Vessels in 1998.

# ADDITIONAL DETAILS (see also www.fish.govt.nz)

# **Capture fisheries**

Three objectives contribute to the overall New Zealand goal for the sector; to protect the aquatic environment, to enable people to realise the best value from the sustainable and efficient use of fisheries, and to ensure credible fisheries management. Initiatives in 2004 and 2005 aimed at achieving these outcomes included:

- a) Developing an objectives-based approach to fisheries management through "fisheries plans". These will state objectives for a fishery and the implementation strategies to achieve those objectives, including research, regulations, and compliance.
- b) Developing a Strategy for Managing the Environmental Effects of Fishing (SMEEF) with associated tools to deliver on the SMEEF, for example, the National Plan of Action for seabirds and New Zealand's Benthic Impact Strategy.
- c) Establishing a network of Marine Protected Areas to protect New Zealand's different marine habitats and ecosystems
- d) Commencing work with other government agencies to develop an integrated and consistent Oceans Policy for New Zealand.
- e) Participating and negotiating in two new Regional Fisheries Management Organisationsthe South Pacific (SPRFMO) and the South Indian Ocean Fisheries Agreement (SIOFA).
- f) Participating in the World Trade Organisation negotiations to end fishing subsidies and negotiating a free trade agreement with China.
- g) Reforming aquaculture management, removing the moratorium on applications for new marine farms, and finalising the Maori aquaculture settlement.
- h) Improving engagement between the New Zealand government and commercial, recreational and customary interests through:
  - 1. joint working groups with industry dealing with issues such as strategic compliance, deemed values, and the paua fishery;
  - 2. regional recreational fisheries forums and the recently established recreational fishing ministerial advisory committee;
  - 3. customary Maori regional forums;
  - 4. enacting and implementing the Maori Fisheries Act 2004 which establishing a private trust to allocate the assets transferred from the crown through the Maori fisheries settlement;
  - 5. upgrading the New Zealand government's monitoring and surveillance capability, targeting poaching and black-market for paua and rock lobster, and gaining a more accurate picture of the effectiveness of the current compliance regime;
  - 6. making publicly available information on the status of fisheries and launching a new Ministry of Fisheries website.

#### Management

The TAC represents the assessment of the total amount of fish that can be sustainably removed from a stock in any one year. It encompasses all extraction from the sea by all users. Except in limited cases<sup>1</sup> it must be set by the Minister of Fisheries with reference to the maximum sustainable yield (MSY) or the greatest yield that can be achieved over time

while maintaining the stock's productive capacity. The stock might be fished down to MSY or rebuilt to a level that can produce MSY.

Other sustainability measures include controls to avoid or mitigate bycatch of protected species such as albatross or Hooker sea lions. Technical measures, such as area closures and gear restrictions, are also used.

The Annual Catch Entitlement (ACE) represents the amount of a particular species in a particular area that a fisher is allowed to catch in a particular fishing year without incurring a penalty. Each person's ACE is equal to his or her share of the TACC as determined by their quota ownership and can be freely traded. For all stocks in the QMS, the commercial fisher must balance the catch with ACE or pay the relevant deemed value.

A commercial fisher is required to have an appropriate fishing permit before catching fish, aquatic life or seaweed for sale. Permits are not transferable and to fish without one is a serious criminal offence. Special permits can be issued for research, education and other approved purposes.

Commercial fishing vessels must be registered under the Fisheries Act 1996. Vessel numbers are not restricted. New Zealand commercial fishers can charter foreign flagged fishing vessels to harvest fish. To do so, consent must be given by the Ministry of Fisheries and the vessel must be registered.

The most significant recent change in fisheries management is the development of an objective-based approach to fisheries management using "fisheries plans". Fisheries plans are aimed at:

- i) incorporating the experience and views of stakeholders;
- ii) providing transparency in fisheries management;
- iii) providing a strong link between objectives for a fishery and management better integrating science, policy, compliance, and other services in fisheries management; and
- iv) specifying the desired performance levels in a fishery through the use of fisheries management standards (i.e. both environmental and stock status).

There are about 130 species fished commercially in the New Zealand Exclusive Economic Zone (EEZ). Seventy per cent of wild fish is caught in deepwater. Major species are squid, hoki, ling, oreo dories, orange roughy, and silver warehou. Important inshore and shellfish species include spiny rock lobster, paua, and snapper.

As at 1 October 2005, there were 92 species and 592 fish stocks in the QMS. Considerable research effort goes into collecting data that can be used to assess the status of the most important stocks. There are 93 stocks of known status comprising over 70% of the total landed catch. Over 80% of these stocks are at, or near, target level. It was estimated (for the 2004-05 fishing year) that:

- 54 stocks were almost certainly near or above their target biomass (usually B<sub>msv</sub>).
- 22 stocks were probably near or above their target biomass.
- 6 stocks were possibly near or above their target biomass.
- 11 stocks were almost certainly below their target biomass.

While the status of many of the small fisheries is unknown, they only account for 28% of the total landings.

In 2004, there were 9 724 people employed in the fishing sector; 1 672 in harvesting, 7 411 in:

## Recreational fishing

Basic legal rights for recreational fisheries concern access rights to fish for personal use. Recreational interests are recognised in the Fisheries Act 1996, which establishes an allowance for recreational fishing within the TAC. The public access right is subject to restrictions under the recreational fishing regulations, such as daily bag limits, method restrictions, size limits and seasonal closures. Recreational catch cannot be sold. There are no reporting requirements for recreational fishing. The main recreational species are snapper, blue cod, kahawai, rock lobster, paua and scallops.

# Customary fishing

In 1992, an Act of Parliament recognised that the Crown has an obligation to recognise Maori customary non-commercial fishing rights and management practices. The Crown is also obliged to consult and develop policies with *tangata whenua* to help recognise, use and management practices of Maori in the exercise of non-commercial fishing rights. The Fisheries Act provides all customary (commercial and non-commercial) fisheries management tools and processes that are available to Maori in recognition of customary rights.

Maori have become the biggest player in New Zealand's commercial fishing industry, controlling well over half of all commercial fishing quotas. Maori commercial fishing assets have so far been managed by a central commission that has overseen a significant increase in the asset base since the 1992 settlement. This process is changing with the introduction of a Maori Fisheries Bill as a culmination of a process settling Maori claims to commercial fishing.

At the time of the aquaculture reforms, a settlement was negotiated with Maori for grievances regarding commercial aquaculture interests since 1992.<sup>2</sup> Under the Maori Commercial Aquaculture Settlement Act 2004, Maori have the rights to 20% of marine farming space that has been developed since September 1992.

In June 2003, the Treaty of Waitangi Fisheries Commission's proposal for allocating fisheries settlement assets to iwi for the benefit of all Maori, was accepted. In September 2004, the Maori Fisheries Act was passed by Parliament. It contains provisions relating to:

- governance regimes for 58 iwi or iwi groups;
- the allocation and distribution of three classes of assets quota, cash and company shares;
- establishing a new organisation, Te Ohu Kai Moana (TOKM) a trust with responsibility
  for ensuring assets are distributed to iwi and that the benefits of the settlement can
  ultimately benefit all Maori;
- two further trusts administered by TOKM one to benefit Maori living away from traditional areas, and the other to develop freshwater fisheries; and
- establishing a commercial asset holding company, Aotearoa Fisheries Limited (AFL) to manage the commercial company assets.

Maori may also seek the establishment of taiapure-local fisheries areas for areas of special significance to tangata whenua. Once a taiapure-local fisheries area has been established, a management committee is appointed on the basis of nominations from the local Maori community. Taiapure management committees may recommend the making

of general fisheries regulations to the Minister of Fisheries for the management of fish within the taiapure area, including regulations relating to commercial, recreational or customary fishing. Seven taiapure-local fisheries areas have been established to date.

# Enforcement and surveillance

In the past few years New Zealand has undertaken projects to upgrade its ability to perform monitoring and surveillance in its EEZ and the Pacific region. By the end of 2007, the New Zealand Navy will have seven new vessels available for maritime patrol. A project is also well underway to upgrade the capabilities of the New Zealand's fleet of P3 Orions that patrol New Zealand's EEZ. The Ministry of Fisheries has established specialist multidisciplinary teams, including covert teams, to target serious offending.

The Ministry of Fisheries is working in many areas to improve its ability to assess the effectiveness of its monitoring and enforcement (compliance) regime. Work has started on a project to develop a methodology to estimate the extent of illegal fishing. The Ministry aims to take 2 to 3 years to develop a reliable, robust and statistically defensible generic methodology that can then be applied to specific fisheries to estimate the volume of fish removed illegally.

#### Multilateral arrangements

New Zealand is a member of the Western and Central Pacific Fisheries Commission, the Commission for the Conservation of Southern Bluefin Tuna, and the Commission for the Conservation of Antarctic Marine Living resources. During 2004 and 2005, New Zealand ratified the Western and Central Pacific Fisheries Agreement (ratified in 2003 but the convention came into force in June 2004), accepted the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing on the High Seas (FAO Compliance Agreement) and ratified the Niue Treaty on Co-operation in Fisheries Surveillance and Law Enforcement in the South Pacific Region.

Work also focussed on developing two Regional Fisheries Management Organisations (RFMOs) i.e. the South Pacific Regional Fisheries Management Organisation<sup>3</sup> and the South Indian Ocean Fisheries Agreement.

# Aquaculture

Aquaculture is based primarily on the farming of greenshell mussels. In 2004, exports of greenshell mussels were valued at NZD 141 million. In 2005 this was NZD 167 million, making them the second largest seafood export after squid. Techniques are being trialed to enable a variety of new species to be farmed. These include snapper, scallops, kingfish, mullet, seaweed, rock lobster, fresh water crayfish, sponges, seahorses, and sea urchin.

A total of 898 farms are operating in New Zealand, 645 in the mussels sector, 230 growing oysters and 23 farming salmon. Also in 2005, the value of production reached NZD 298 million, NZD 204 million of which was mussels. Regional councils are required to consider the impact that marine farms have on the aquatic environment, including the sustainability of fisheries resources, when they are providing for aquaculture under regional coastal plans.

### Fisheries and the environment

The Fisheries Act establishes strong environmental obligations, including requirements to avoid, remedy, or mitigate any adverse effects of fishing on the aquatic environment. New Zealand continues to take steps to manage the adverse effects of fishing on the aquatic environment. A Strategy for Managing Environmental Effects (SMEEF), released in August 2005, provides for the co-ordination of the various environmental obligations under New Zealand legislation. The SMEEF should assist New Zealand in meeting its international obligation to implement an ecosystem approach to fisheries. As part of implementing the SMEFF over the coming year, the Ministry of Fisheries will be working on limits surrounding acceptable environmental effects of fishing.

In January 2006, the New Zealand government released the Marine Protected Areas Policy Statement and Implementation Plan (MPA Policy). The objective of the MPA Policy is to "protect marine biodiversity by establishing a network of MPAs that is comprehensive and representative of New Zealand's marine habitats and ecosystems".

The New Zealand Minister of Fisheries recently announced a proposal by the fishing industry to close 30%, or 1.2 million square kilometres of New Zealand's EEZ, and some areas beyond the EEZ, to bottom trawling and dredging. The proposed areas are based on the Ministry for the Environment's Marine Classification System and have had little or no bottom trawling or dredging in the past. The Fisheries Minister is currently undertaking public consultation.

In 2004, the Ministers of Conservation and Fisheries released New Zealand's National Plan of Action to reduce the incidental catch of seabirds in New Zealand Fisheries (NPOA – Seabirds). The plan sets out a strategic framework to reduce seabird by-catch to sustainable levels, and to continue to reduce seabird by-catch as far as possible. The NOPA – Seabirds establishes agreed codes of practice setting voluntary and regulatory limits on the number of seabird deaths permitted in any one year; placing controls on fishing methods harmful to seabirds and providing for a future legal response if fishing vessels fail to fulfil their responsibilities.

Specific measures are in place to manage the effects of fishing on a number of marine mammal species. These include a by-catch limit for New Zealand sea lions in the southern squid fishery, an industry code of practice designed to reduce by-catch of New Zealand fur seals in the hoki fishery and restrictions in some inshore areas to reduce by-catch of hectors dolphin and Maui dolphins.

#### **Government financial transfers**

The New Zealand government does not subsidise the fishery sector, but recovers costs from the commercial fishing industry. Total net transfers to the industry amounted to NZD 53 million, all of which concerned general services and a cost recovery element of NZD 31 million.

Critical to this approach is the annual consultation process that takes place between the Ministry of Fisheries and stakeholders on the nature and extent of fisheries service to be provided, the costs associated with those services, and their allocation between the commercial sector and the Crown. A summary of the levies charged to participants follows:

• Levies for non-ITQ species: the main levies to recover costs for management services in non-quota fisheries.

- Levies on individual catch limits: apply to permit holders where catch limits are specified on the permits and recover costs related to these fisheries.
- Aquaculture levies: levies to recover enforcement and research costs related to aquaculture and applies to holders of permits, leases or licenses.
- Permit holders levy: applies only to permit holders, and recovers costs related to access to fisheries, and processing of fishing returns.
- Licensed fish receivers levy: recovers the costs of processing all returns.
- Vessel monitoring levy: recovers the cots of the further development of the vessel monitoring system.
- Conservation services levy: intended to recover costs incurred by the Department of Conservation in researching the effects on protected species of bycatch resulting from commercial fishing, and measures to mitigate the adverse effects of commercial fishing on protected species.

#### Markets and trade

In 2005, squid overtook hoki as the highest value export species. The key export markets for New Zealand's fish products are the European Union (18%), the USA (17%), Japan (16%), and Australia (12%) followed closely by Hong Kong and China. Exports to the European Union have increased in recent times through the opening of new autonomous tariff quotas in the last quarter of 2003 – notably, exports of frozen fillets and blocks of hoki for processing.

The top five export earners and the revenue generated for 2004 and 2005 are shown in the table below.

2004 2005 Fishery Tonnes Export value NZD (million) Tonnes Export value NZD (million) Squid 69 800 172 70 900 168 51 000 174 42 800 152 Rock lobster 2 100 102 2 400 114 Orange roughy 6 000 90 5 000 70 52 51 Abalone/paua

Table III.23.1. Top five fishery export earners in New Zealand

 ${\it Note:}\,$  Please note that mussels have been removed because they are not generally a "capture" fishery.

#### **Outlook**

New Zealand is at a turning point in the management of its fisheries resources. The development and implementation of fisheries plans is directed at improving opportunities for those who utilise fisheries resources to contribute to, and participate in, the management of the resource. The QMS remains the preferred system for managing New Zealand's fisheries. Improvements have been made to the QMS and the majority of stocks with sustainability and management concerns will be introduced into the QMS over time. Allocation rights in shared fisheries remain the most contentious issue domestically and developing a framework to address this issue will be important for New Zealand in the future.

An increased environmental focus in the management of fisheries has developed in recent years and is expected to continue developing. This parallels with increasing global focus on environmental issues and an environmentally aware New Zealand public with strong interests in the marine environment.

Internationally, New Zealand will be focusing on the development of new, and strengthening existing, RFMOs and other international fisheries bodies. New Zealand will also continue to promote the liberalisation of trade in fish products within the framework of international and regional bodies such as the World Trade Organisation (WTO).

#### Notes

- 1. The exceptions are stocks whose biological characteristics mean MSY cannot be estimated (e.g. squid), enhanced stocks, and international stocks where New Zealand's catch limit is determined as part of an international agreement.
- 2. Those claims relating to interests prior to 1992 continue to be addressed on an iwi by iwi basis through the historical claims process run by the Office of Treaty Settlements.
- 3. Further details on: www.southpacificrfmo.org/.



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