

Overview

- New Zealand; background
- New Zealand fisheries: key features
- Quota Management System
- Catch balancing system
- Commercial stakeholder organisations
- Future directions
- Lesson learned
- Resources



New Zealand: Background

- Small, developed, multi-cultural country in the south west Pacific.
- Population of 4.2 million (66% European descent /15% Maori)
- “Westminster” (British) form of parliamentary democracy
- Independent judiciary based on British legal system/common law
- Strong public and private institutions
- Open market economy:
 - GDP: \$US70 billion
 - Per capita income: \$US25,000
- Maori have a long history of fishing but commercial industry relatively recent



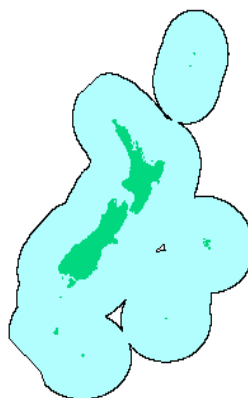
Perspective!

- EEZ & Territorial Sea

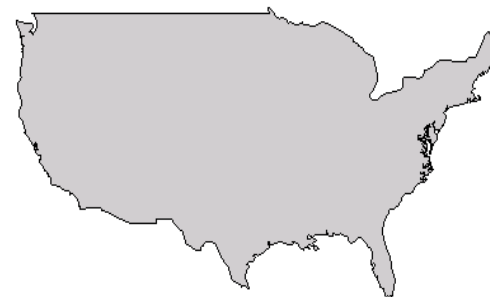
- 4.4 million sq km (world's 5th largest)
- 15 times land mass
- 72% below 1000 m



3,781,000 sq km



4,363,000 sq km

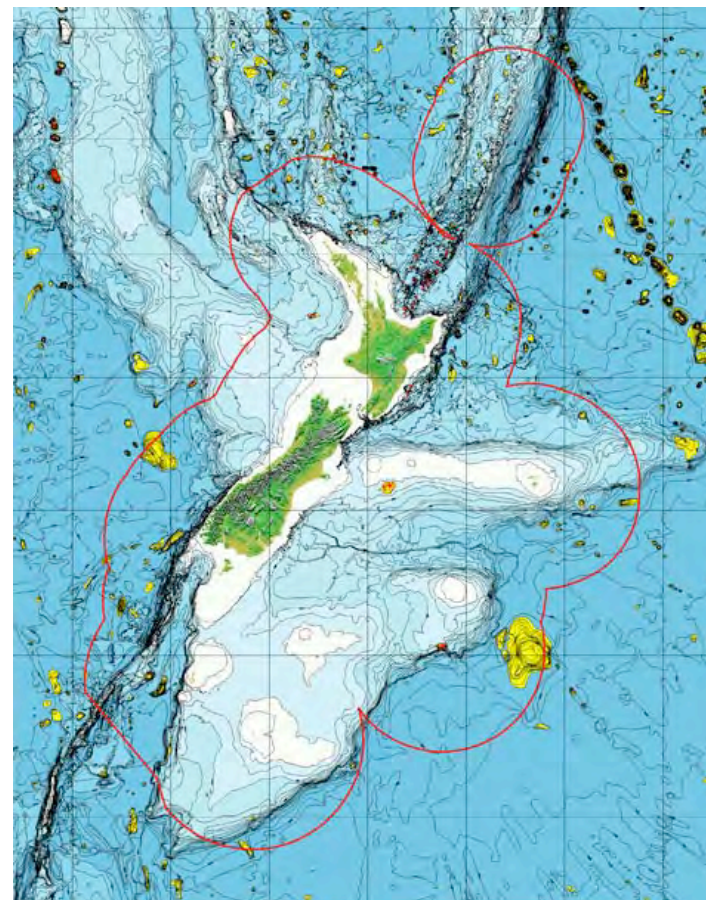


7,956,000 sq km

- Coast line:
 - 15,000 kilometres
 - Many outlying islands
 - Climate: sub-tropical to sub-Antarctic
- Diverse range of eco-systems
 - 16,000+ marine species
 - 1,300 fish species
 - Fishery productivity: medium

New Zealand Fisheries; Key features

- Species commercially fished: 130
- Current status information available on 65% of stocks
- 85% of these at or near target size
- Recreational fisheries:
 - Estimated participation: 31% of population
 - Estimated annual take: 25,000 tonnes
 - Managed by effort controls
- Maori involvement in fishing:
 - Non-commercial customary fisheries management devolved to hapu
 - Customary take provided for: 4,800 t
 - Iwi own approx 30% of commercial quota



Commercial Fisheries

- Total Catches: 441,000 tonnes
- Total quota value: \$3.97 billion
- Fish Exports:
 - Approx 90% of total production
 - 2007 Value: NZ\$ 1.3 billion
- Hoki has MSC environmental certification; others fisheries being assessed
- 1,316 fishing vessels
- 1,592 quota owners
- 229 fish processors & traders
- 7,155 directly employed:
- Aquaculture species: mussels; oysters; salmon
- Direct subsidies: Nil



Fisheries issues (early 1980s)

Inshore

- Over-fished / depleted stocks
- Commercial fisheries:
 - over-capitalised
 - unprofitable / uncompetitive / subsidised
- Declining Recreational fisheries

Deepwater

- New 200 NM EEZ
- “New Zealandisation”; reduce foreign licence fishing;
- Risk of over-capitalisation



Development of Quota Management System

- 1982 - Part time fishers excluded
- 1983 - Deepwater transferable enterprise allocations
- 1986 - QMS Implemented
- Initially 26 species; 156 stocks
- Initial Govt buy-back of inshore catching rights (15,800 tonnes; NZ \$42.5M)



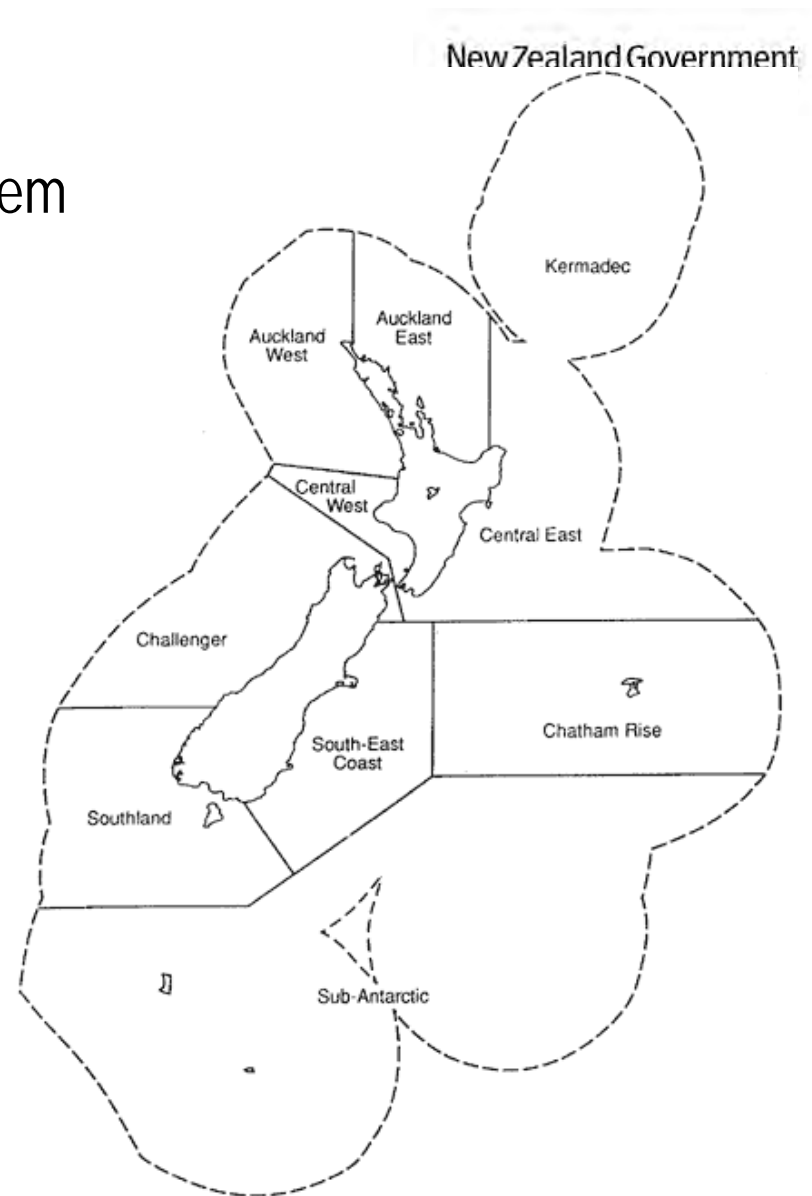
Key Developments since 1986

- 1990 - ITQs changed: kgs to shares
- 1992 - Settlement of Maori fisheries claims
- 1994 - Cost recovery implemented
- 1996 - Stronger environmental protection provisions
- 1999 - Fisheries Amendment Act
 - Provision for devolution of fisheries services
 - Long-term and within-year rights separated; Annual Catch Entitlement (ACE)
 - New mechanism for managing fish bycatch in multi-species fisheries
- 2001-05 - Major increase in # species in QMS
- 2009 - 97 species; 632 stocks in QMS



Key features: Quota Management System

- Quota Management Areas for species based on combination of Fishery Management Areas
- ITQs in perpetuity
- ITQ allocation based on catch history (with comprehensive appeal provisions)
- Appeal provisions later reduced
- Quota consolidation limits: 10 – 35%
- 2009: Nearly all major commercial fisheries in QMS



How it works

- TAC set for each species in each QMA (i.e. 632 TACs) based on maintaining stocks at B_{MSY}
- A Total Allowable Commercial Catch (TACC) set after allowing for recreational and non-commercial customary fishers, and other sources of fisheries related mortality
- ITQ allocated as a share of the TACC (100 million shares in each fish stock)
- Industry-owned company operates quota registry (www.fisherve.co.nz)
- ITQ generates annual catch entitlement (ACE) (in kgs)
- Open ITQ and ACE markets
 - Government guarantee
 - Confidence of bankers
- ITQ owners pay government management costs (approx NZ\$30M per year)

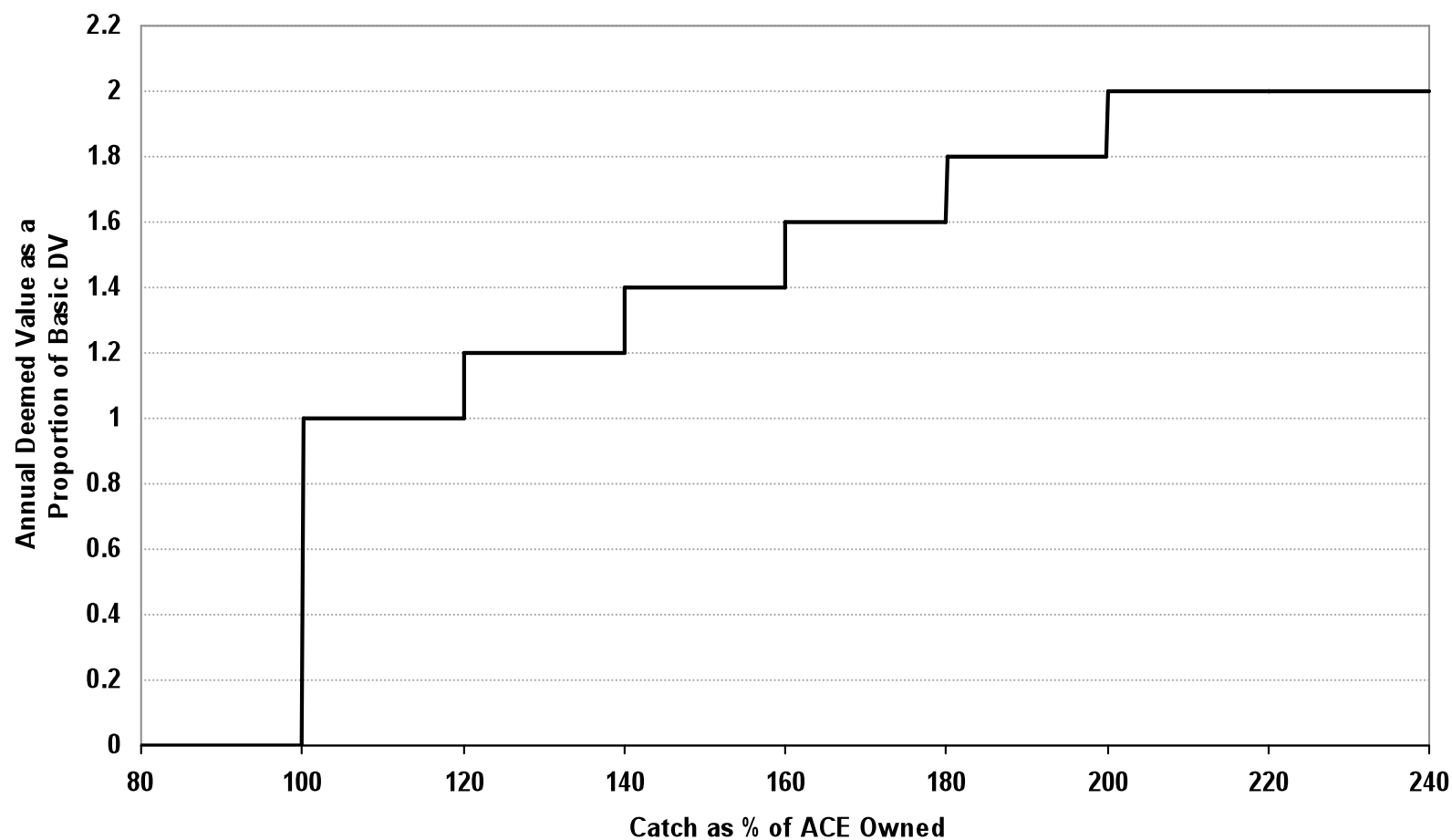


How it works (2)

- Commercial fishers must have fishing permit and registered fishing vessel
- Commercial fishers must record & report catch & land fish to licensed fish receiver (documentary produce flow control system)
- Catch must be covered by ACE or pay a deemed value
- Fishers pay refundable deemed value to government for over-catch; provides incentive to cover catch with ACE
- Failure to record/report catch or pay deemed value is major offence with draconian penalties
- Input controls to deal with environmental and allocation externalities

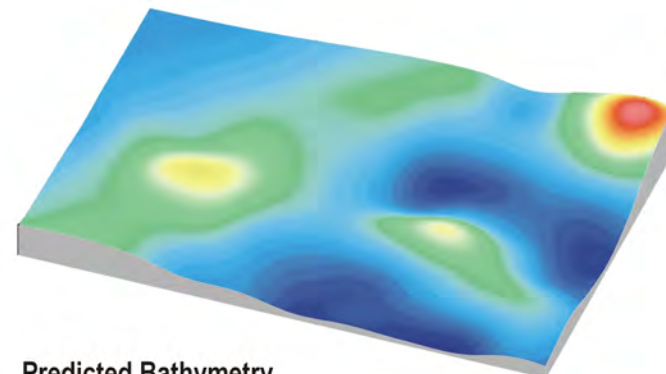


Example of Deemed Values

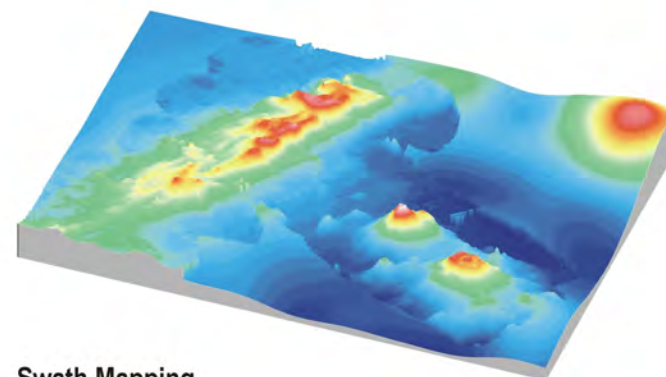


Catch Shares Encourage Cooperation

- Common long-term interest
- Development of Commercial Stakeholder Organisations (CSOs)
- CSOs undertake variety of activities:
 - Represent quota owners
 - Contract scientists, Research surveys
 - Fisheries management
 - Manage voluntary agreements e.g.: Environmental codes of practice; Area management of TACCs
 - Developing mitigation measures
 - Establishing benthic protection areas over 30% of EEZ
 - Applying for environmental certification
- Some companies now catching ACE on behalf of others
- Improved cooperation between CSOs and Government



Predicted Bathymetry



Swath Mapping

Future Directions

- Changing roles of government and rights holders
 - Government – governance
 - Rights holders – management
- Collective management arrangements
 - Enabling rights holders to manage and be held accountable
- Increasing environmental standards / performance
 - changing societal values
 - market requirements
- Enhanced transparency and accountability
- Market driven catch documentation and independent monitoring systems



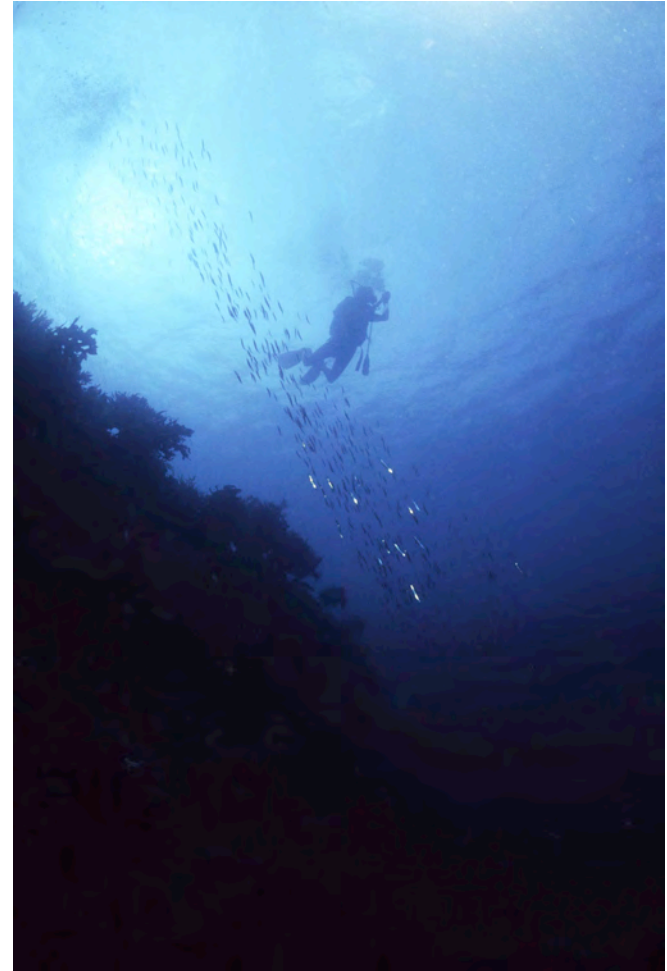
Lessons learned

- Successful implementation of catch shares needs:
 - Sufficient support from fishers
 - Continued investment in fisheries governance and management
 - Strict enforcement of the rules (system integrity)
 - Flexibility to adapt to changing environmental, social and economic conditions
 - Enough time and money for development and transition
 - Strong political will
- A holistic approach is important (review registry, compliance, penalty, observer, data collection, & science systems)
- Allocation of shares will not please everyone!



And if we could do it all again:

- We probably would not have excluded part-time fishers in 1982
- We would have addressed Maori fisheries issues sooner
- We would have moved directly to proportional shares rather than quota in kgs.
- We would have narrowed the appeal process earlier
- We would have considered how to retain stronger links between quota ownership and fishers
- We would have considered moving more quickly to allocation of shares in a collective management group rather than rights to fish



Resources

- www.fish.govt.nz and <http://fs.fish.govt.nz>
- Bjorn Hersoug 2002, Unfinished business; New Zealand's experience with rights-based fisheries management
- Lock, Kelly and Stefan Leslie. 2007. "New Zealand's Quota Management System: A History of the First 20 Years," *Motu Working Paper 07-02*.
<http://www.motu.org.nz/publications/detail/new-zealands-quota-management-system-a-history-of-the-first-20-years>
- Kerr, Suzi; Richard Newell and James Sanchirico. 2004. "Evaluating the New Zealand Individual Transferable Quota Market for Fisheries Management" in *Tradeable Permits: policy evaluation, design and reform*, OECD, Ed. Paris. Paper prepared for OECD workshop Ex post evaluation of tradable permit regimes, Paris, January 2003.
- Newell, Richard G. 2004. "Maximising Value in Multi-species Fisheries," *Resources for the Future*, Washington DC and *New Zealand Ministry for Fisheries*, Wellington.
<http://www.motu.org.nz/publications/detail/maximising-value-in-multi-species-fisheries>
- Connor, R. 2001. Initial allocation of Individual Transferable Quota in New Zealand Fisheries, In Shotton, R. (ed) Case studies on the allocation of transferable quota rights in fisheries. FAO Fisheries Technical Paper No. 411. FAO, Rome.
- Connor R, 2001. Changes in fleet capacity and ownership of harvesting rights in New Zealand fisheries, in Shotton, R. (ed). Case studies on the effects of transferable fishing rights on fleet capacity and concentration of quota ownership. FAO Technical Paper No. 412. FAO Rome.

