

Lessons Learned about Property Rights and Institutional Design from the New Zealand Rock Lobster Experience

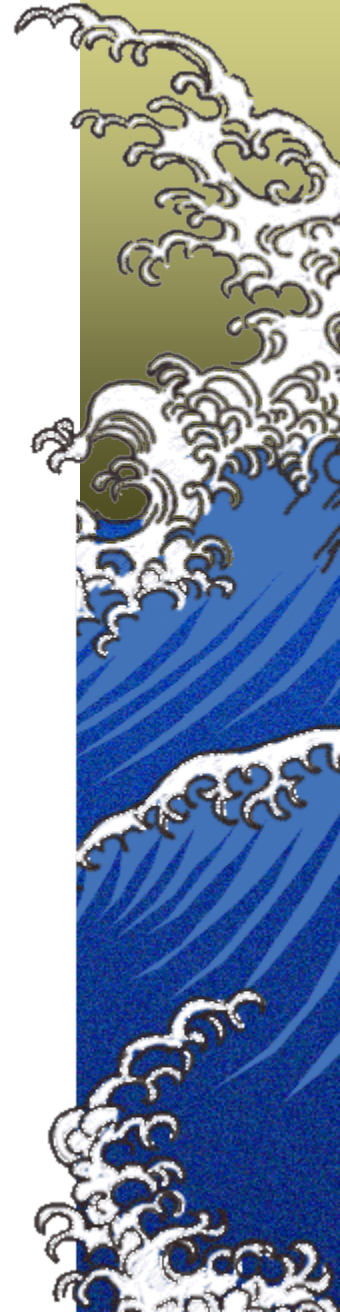


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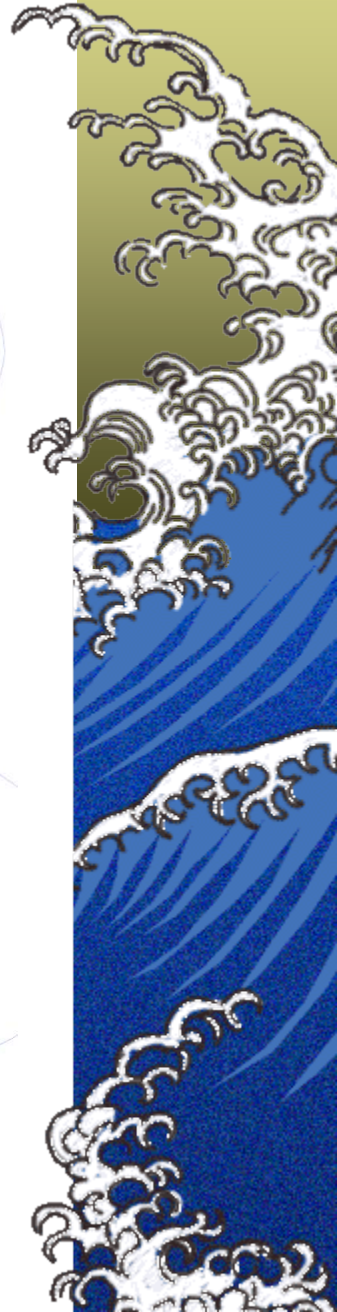
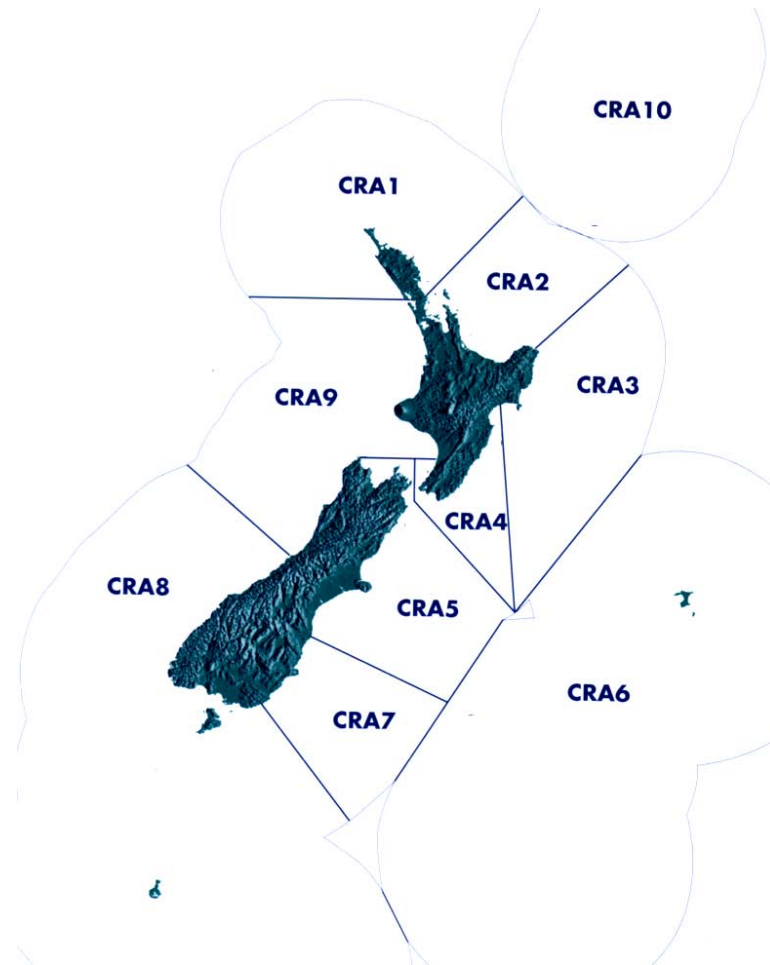
The Plan ...

- ▲ Fishery Description
- ▲ Historical Overview
- ▲ Current Management
- ▲ Tools for thinking about the case
- ▲ Lessons Learned
- ▲ Concluding Thoughts

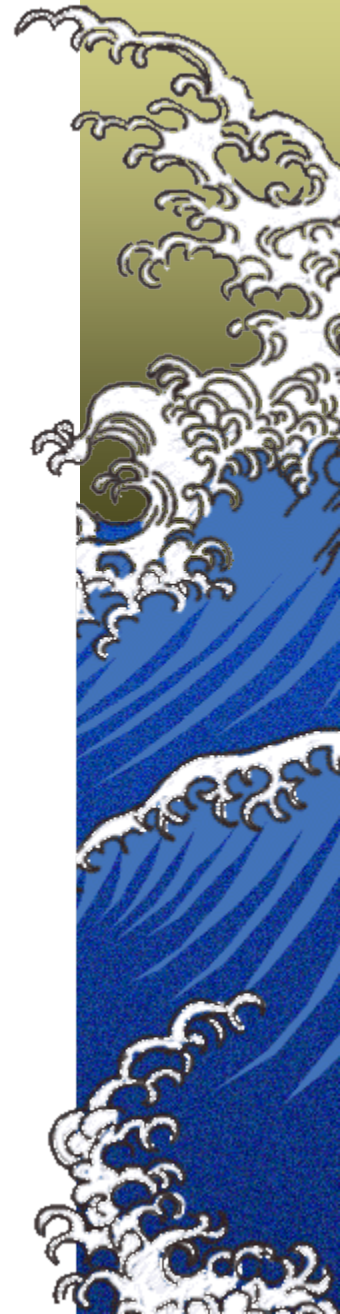
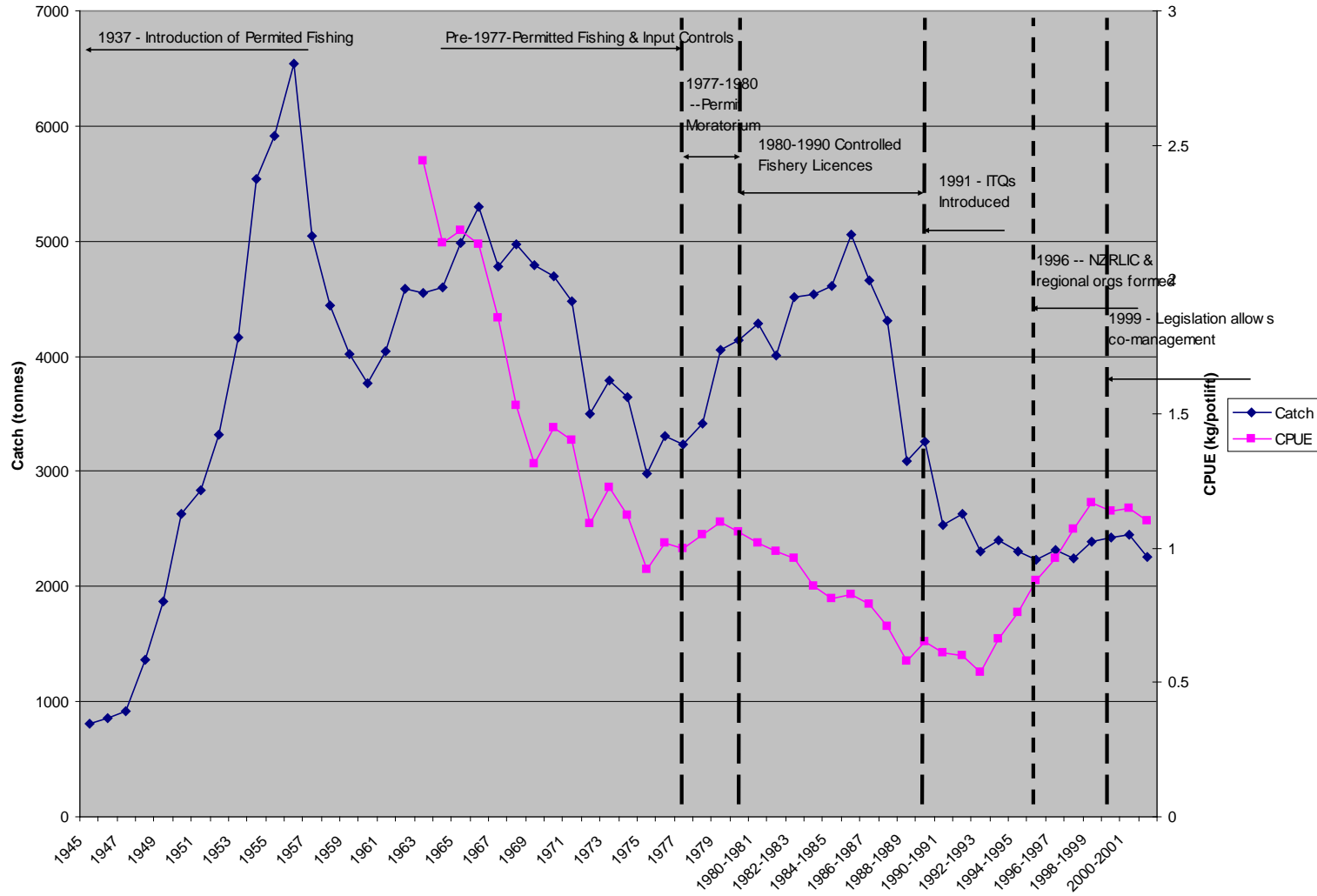


Fishery Description

- ▶ Small vessels (potting) fishing into large processing & export companies
- ▶ 2nd largest seafood export (NZ\$180m in 2007, TAC = 2981 metric tons)
- ▶ ITQ management supplemented with co-management
- ▶ Most regional stocks stable or increasing biomass

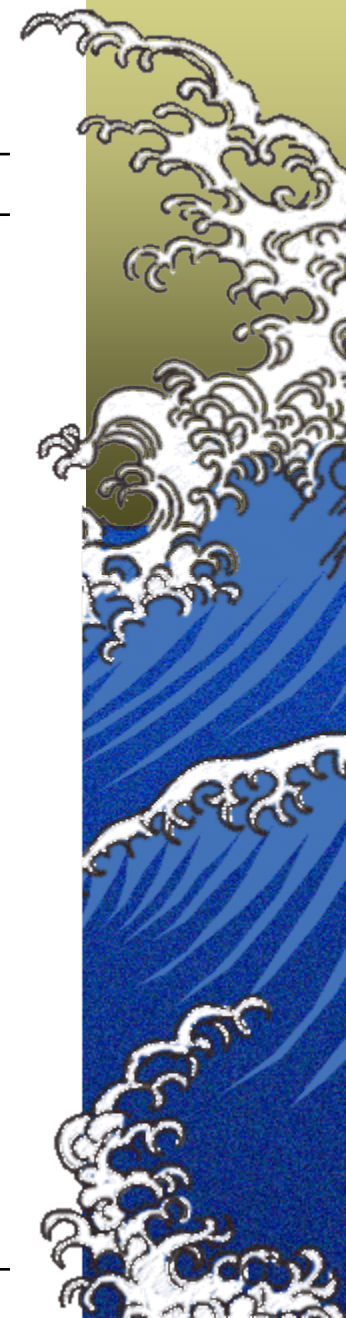


History: Catch & CPUE



History: Rock Lobster Regulatory Summary

Event	Description
1980 –1990: Controlled Fishery	Licences and vessel authorities required to fish
1986: Fisheries Amendment Act	ITQs introduced in most fisheries (not Rock Lobster)
1990: Rock Lobster Enters QMS	Rock lobster enters QMS Government stops entering market to change TACC.
1990: Switch from Tonnage to Proportional Allocation	
1992: Treaty of Waitangi Settlement	Maori granted 10% of allocated quota; plus half of Sealord Products; plus 20% of all future stocks brought into QMS.
1994: Switch from resource rentals to cost recovery	Quota owners pay for part of the cost of management rather than a “rental fee” for fishing in .
1996: Fisheries Amendment Act	More explicitly defined ITQs, encouraged loans on ITQs
1999: Fisheries Amendment Act	Legislation allows MFish to delegate some management powers to CSOs.



Current Management

- ▶ ITQs (defined as a proportion of TAC)
- ▶ Significant ITQ leasing
- ▶ Supplemental gear and size limits
- ▶ Industry participation in fishery management



Challenges to Current Management

- ▲ Leasing Quota
 - ▲ Short-term
 - ▲ Long-term
- ▲ Sectoral Conflict
- ▲ Spatial Conflict



Thinking about Property Rights: Ostrom & Schlager's (1996) Property Rights Bundle

	Owner	Proprietor	Claimant	Auth. User	Auth. Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X		
Exclusion	X	X			
Alienation	X				



Thinking about Property Rights: Property Rights Dimension

- ▲ Temporal
- ▲ Spatial
- ▲ Quantitative

These can be used in combination with property rights bundle to systematically analyze property rights distribution.

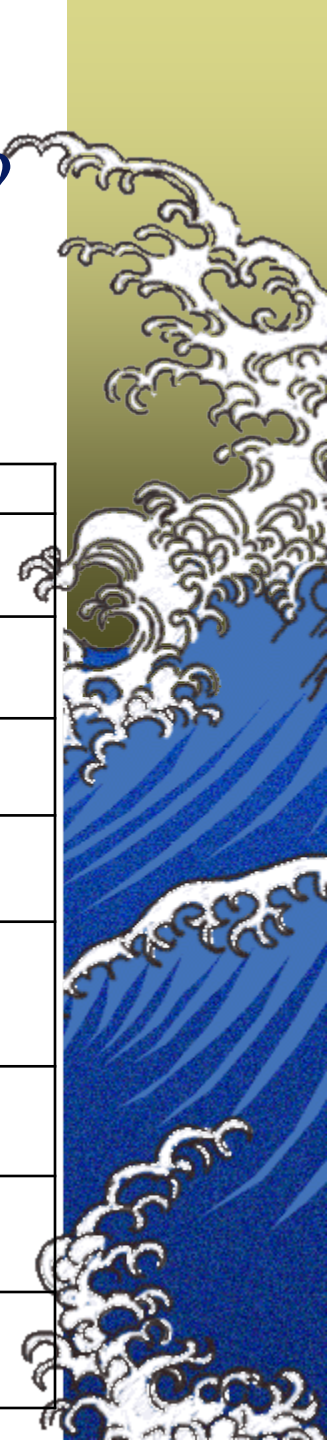


Lessons Learned:

Why did rock lobster management evolve?

- ▲ Political Context
- ▲ Social Capital
- ▲ Growth of property rights

Event	Description	Rights held by Fishers
1980 –1990: Controlled Fishery	Licences required to fish	Access, Withdrawal (poorly defined)
1986: Fisheries Amdt Act	ITQs introduced in finfisheries (not RL)	Access, Withdrawal (poorly defined) - RL fishers observe effects of ITQs in finfisheries
1990: ITQs in Rock Lobster	Rock lobster enters ITQ management	Access, Withdrawal, Limited Exclusion
1990: ITQs defined Proportionally	Government stops entering ITQ market to change TACC.	Access, Withdrawal, Limited Exclusion - Fishers demand mgt rights after bearing costs.
1992: Treaty of Waitangi Settlement	Maori granted portion of ITQs.	Access, Withdrawal, Limited Exclusion -- Confidence in ITQs grows - Fishers continue to demand mgt rights
1994: Introduction of cost recovery	ITQ owners pay part of mgt cost, not “rental fee”	Access, Withdrawal, Limited Exclusion -- Fishers gradually receive de facto mgt rights
1996: Fisheries Amdt. Act	More explicitly defined ITQs, easeir loans on ITQs	Access, Withdrawal, Limited Exclusion, de facto Limited Management
1999: Fisheries Amdt. Act	Allows MFish to delegate some mgt powers to CSOs.	Access, Withdrawal, Limited Management, Limited Exclusion

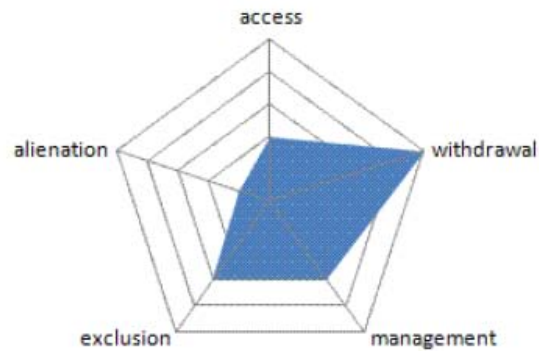


Lessons Learned:

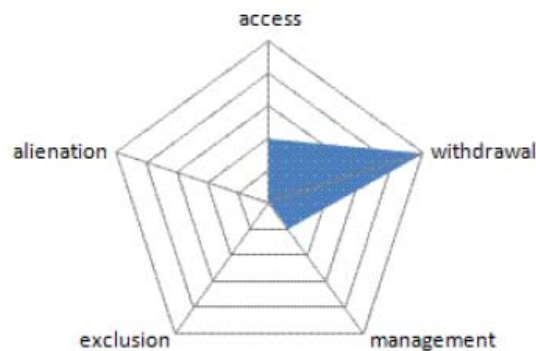
Why is there conflict between owners & leasers?

Property Rights Bundle

ITQ

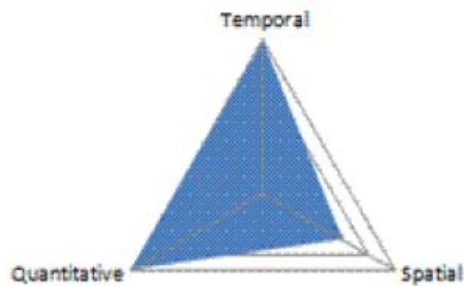


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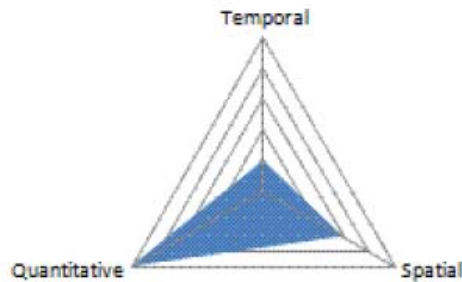


Property Rights Dimensions

ITQ



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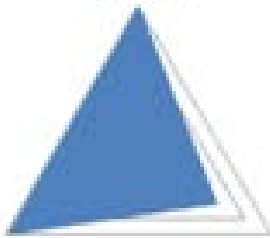
Lessons Learned: What role do property rights play in sectoral conflict?

Property Rights Dimensions

ITQ

Temporal

Quantitative Spatial



Recreation

Temporal

Quantitative Spatial



Maori (taipure)

Temporal

Quantitative Spatial



Property Rights Bundle

ITQ

access

alienation withdrawal

exclusion management



Recreation

access

alienation withdrawal

exclusion management



Taipure

access

alienation withdrawal

exclusion management



Lessons Learned: What role do property rights play in spatial conflict?

ITQ

Temporal

Quantitative Spatial



Recreation

Temporal

Quantitative Spatial



Maori (Mataitai)

Temporal

Quantitative Spatial



Aquaculture

Temporal

Quantitative Spatial



Marine Reserve

Temporal

Quantitative Spatial



Submarine Cables/Pipelines

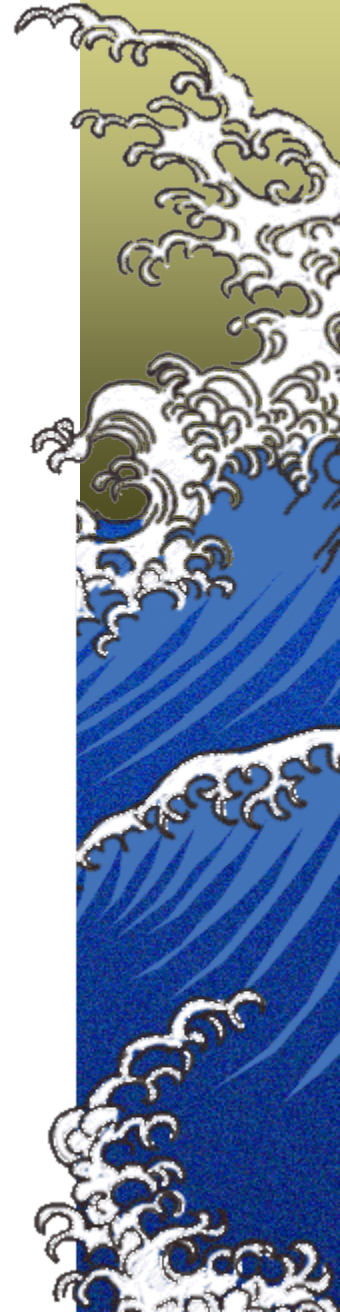
Temporal

Quantitative Spatial



Closing Thoughts

- ▶ ITQs (or catch shares) are a complex, dynamic set of property right
- ▶ ITQs fundamentally change the fishery
- ▶ Careful thought is needed on issues such as:
 - ▶ How are property rights presently distributed within and outside fishery?
 - ▶ How will distribution change this?
 - ▶ How will creating or changing property rights in other sectors influence fishery?
- ▶ By carefully addressing these issues up front there is a greater chance that institution will be designed to best meet all fishery needs.



Questions?

