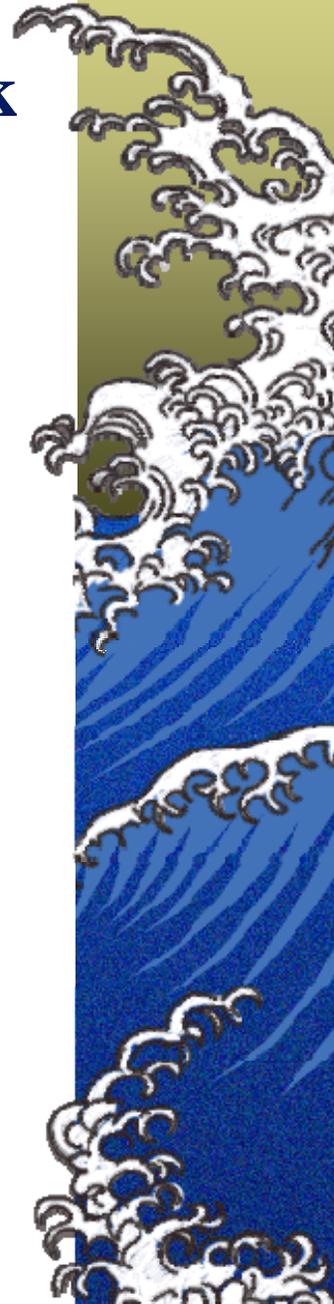


# Lessons Learned about Property Rights and Institutional Design from the New Zealand Rock Lobster Experience

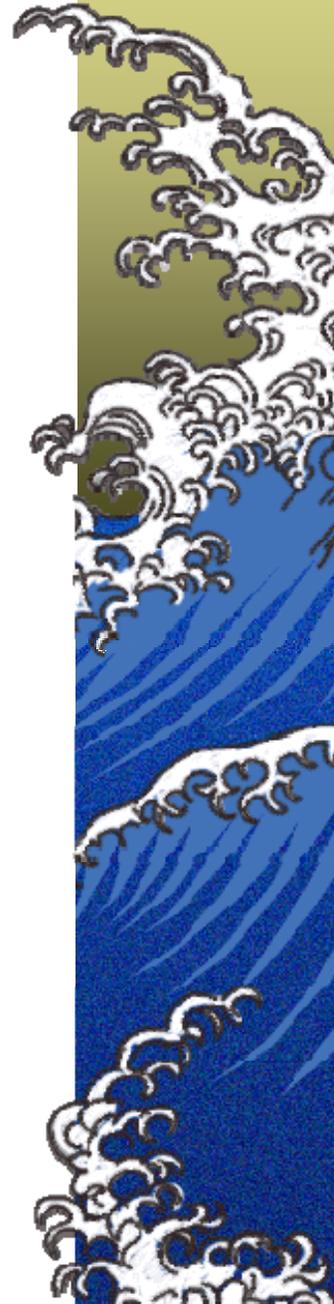


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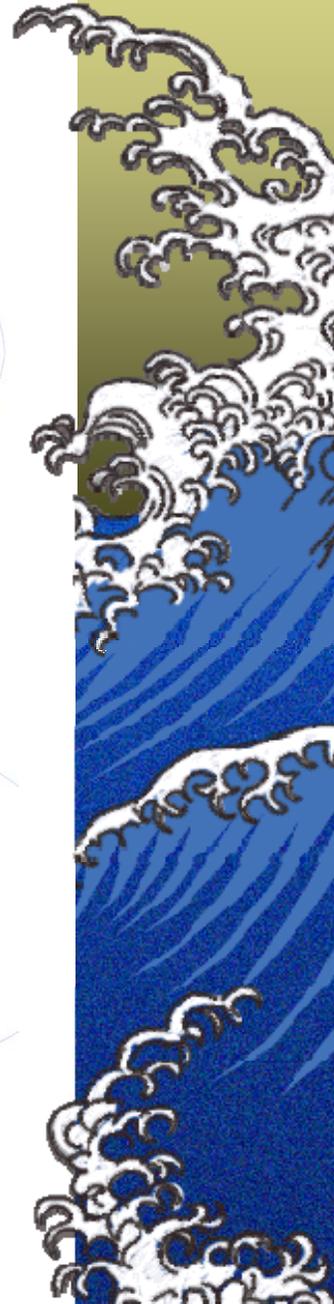
# The Plan ...

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

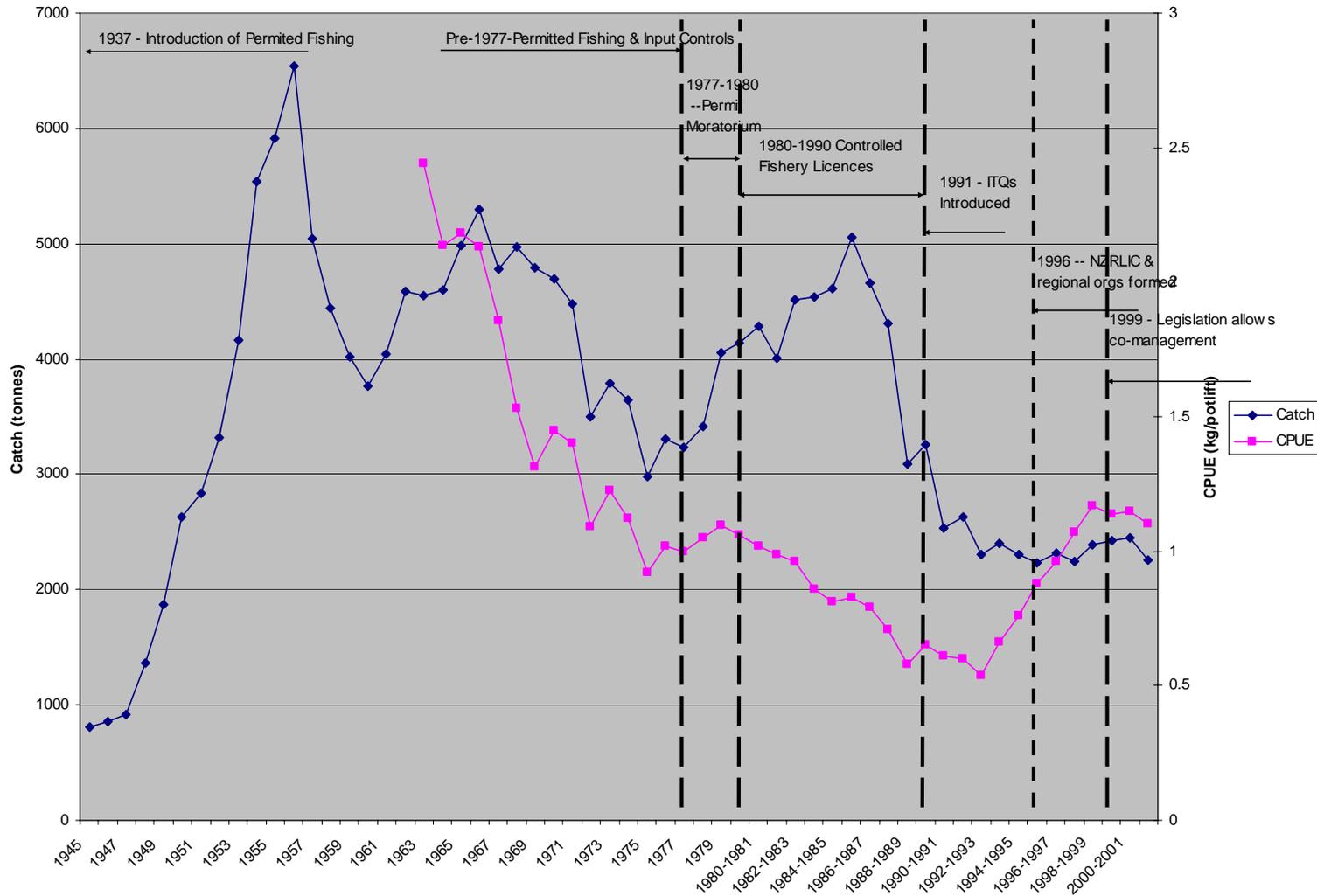


# Fishery Description

- ▶ Small vessels (potting) fishing into large processing & export companies
- ▶ 2<sup>nd</sup> 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



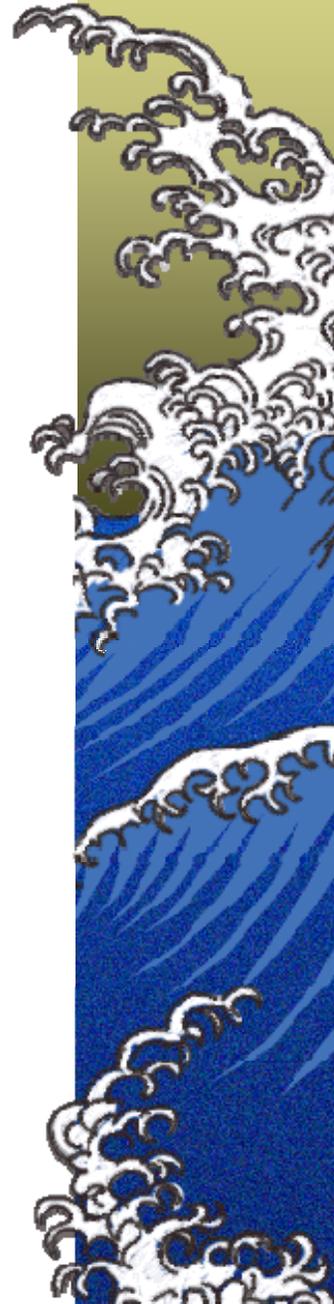
# History: Rock Lobster Regulatory Summary

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



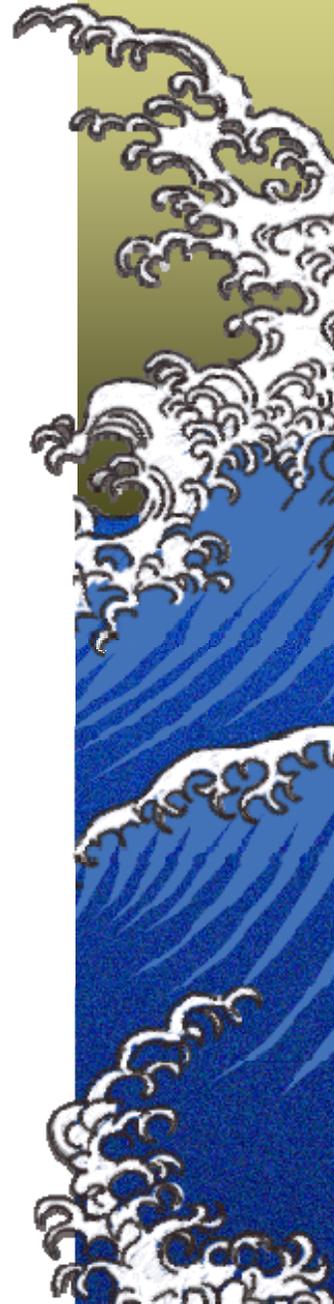
# Current Management

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



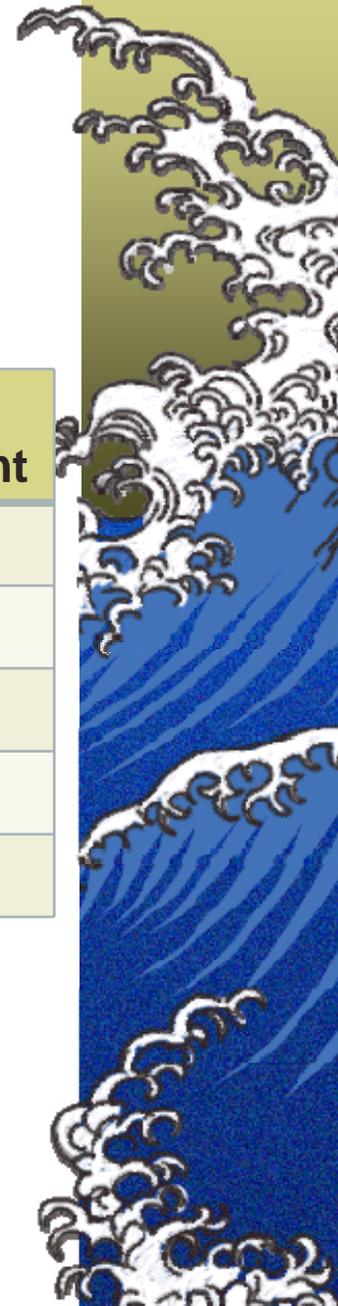
# Challenges to Current Management

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



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

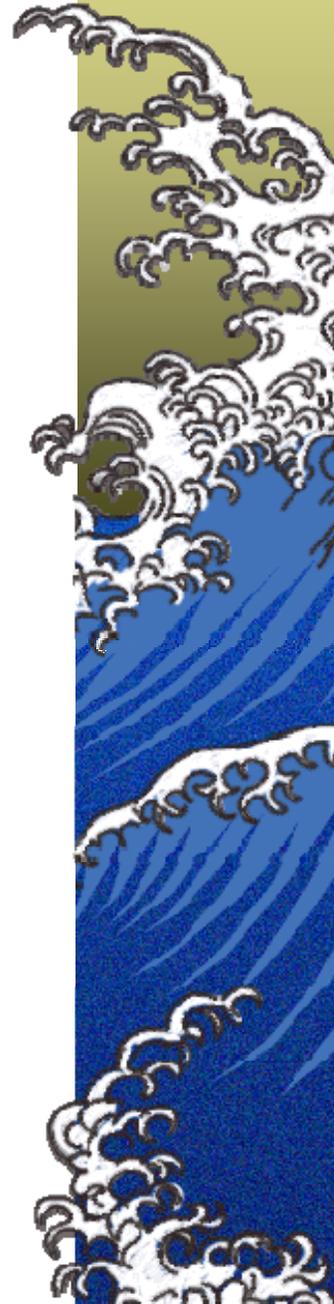
	Owner	Proprietor	Claimant	Auth. User	Auth. Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X		
Exclusion	X	X			
Alienation	X				



# 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.

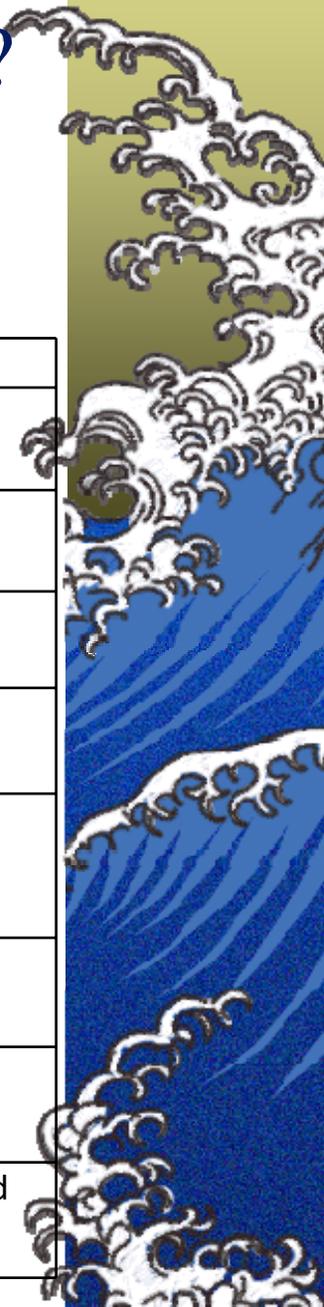


# Lessons Learned:

## 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

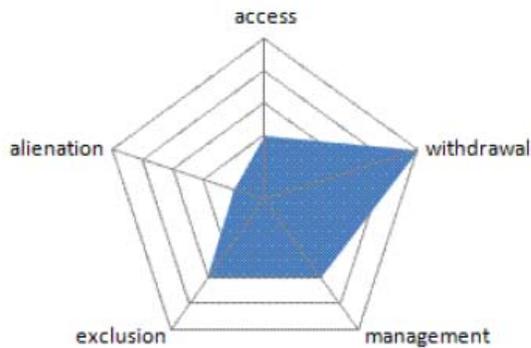


# Lessons Learned:

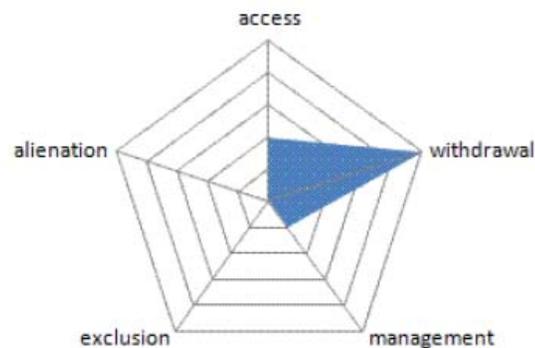
## Why is there conflict between owners & leasers?

### Property Rights Bundle

**ITQ**

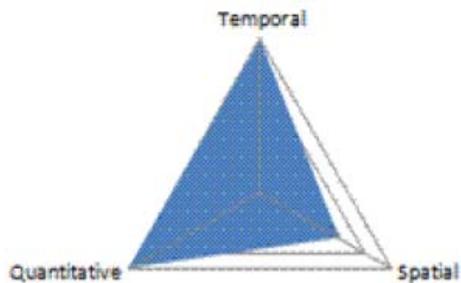


**ACE**

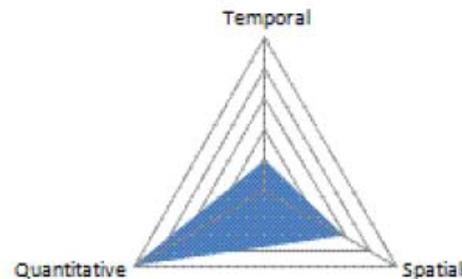


### Property Rights Dimensions

**ITQ**

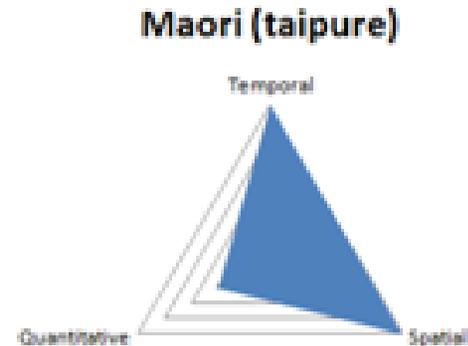
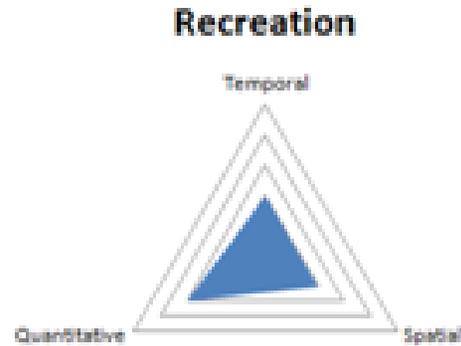
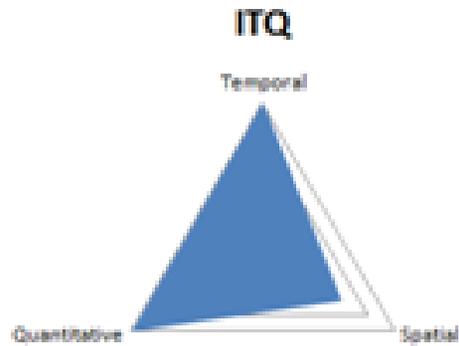


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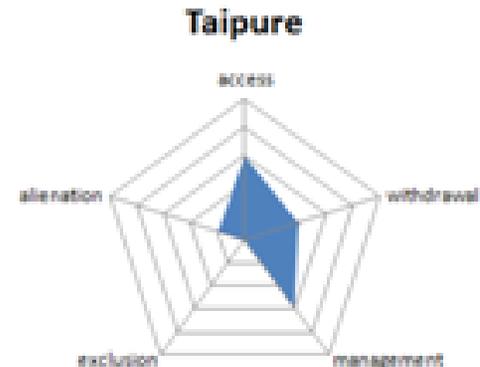
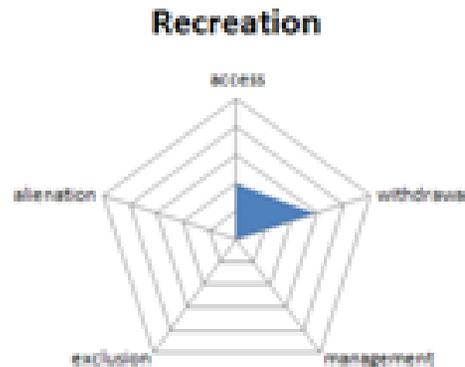
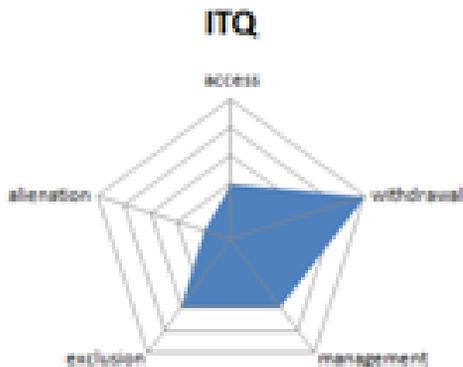


# Lessons Learned: What role do property rights play in sectoral conflict?

## Property Rights Dimensions



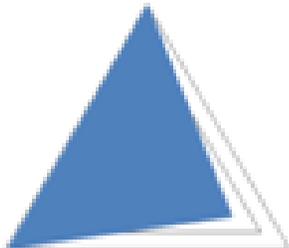
## Property Rights Bundle



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

## ITQ

Temporal



## Recreation

Temporal



## Maori (Mataitai)

Temporal



## Aquaculture

Temporal



## Marine Reserve

Temporal



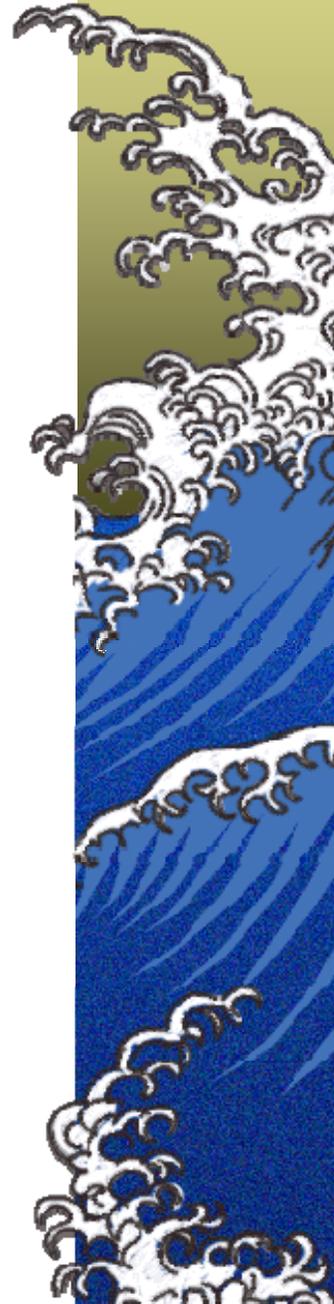
## Submarine Cables/Pipelines

Temporal



# 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?

