



**Marine Fisheries: Market Based
Instruments for environmental and
fisheries outcomes**

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Marine Fisheries: Market Based Instruments for environmental and fisheries outcomes

Outline

- general situation
- Some approaches
 - Especially in fisheries management but grading into broader environmental management and regional multi-sectoral management
- A couple of challenges to be going on with



Market Based Instruments for environmental and fisheries outcomes: - the general situation

Market based instruments in environmental and fishery management have a long history of support in theoretical economics

- where they are often portrayed as a 'silver bullet' solution

Fisheries management has been a relatively early adopter and so has relatively rich experience

- Especially allocated catch or effort shares that can be tradable (ITQ and ITE)
- Experience is that
 - they are a very valuable tool, and ultimately possibly a necessary tool
 - they are not a 'silver bullet' but rather one of many tools that need to be used together to achieve the desired outcomes
 - i.e. they are not a sufficient tool
 - they create powerful incentives so be careful how they are constructed and where they are pointed (the devil is in the detail)



Market Based Instruments for environmental and fisheries outcomes: - the general situation

Widespread adoption of economic instruments has been slow

- within fisheries widespread adoption is still a distant goal of the OECD and FAO
- and it has been even slower for other environmental management (e.g. water, pollution and carbon)

Common difficulties often encountered are

- Technical difficulty in adequately predicting/measuring/monitoring the elements subject to the MBI
- Technological and ecological interactions between elements subject to separate MBIs (e.g. multispecies fisheries, multiple pollutants)
- High cost of transition, transaction and compliance for many MBIs
- Changed distribution of ownership/benefits/costs, including on initial allocation of costs/rights and introduction of rent on previously free services
- Scope for aggregation and monopolisation of MBI rights
- Scope for all of the above to be politicised by vested interests (for or against)



Market Based Instruments for environmental and fisheries outcomes: - the general situation

Most MBIs have most of these difficulties

Despite the problems the benefits are being increasingly recognised and MBIs are being increasingly used

- in fisheries
- in broader marine environmental management
- trying hard with water, carbon and pollution

The developments are being led by a mix of governments and eNGOs

- In fisheries mostly by governments (except in US)
- In broader marine environment significant leadership by eNGOs and granting Foundations (e.g. TNC, Packard, Moore)

Most methods need some combination of legislation, policy, regulation to allow implementation

- Not just private or business arrangements



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Deemed value methods to limit over-quota discards of quota managed species, esp in multispecies fisheries

- All catches necessarily retained. Deemed value set by govt at a financially neutral or punitive level and paid by industry for any catches not covered by quota.
- Applied in NZ; variation for Australian situation of discards not illegal but are monitored and accounted for in resource assessment & future TAC?

Tradable by-catch allocations to reward good performance, penalise poor performance and increase scope for overall by-catch reduction

- Overall total by-catch limit set and allocated in proportion to target spp quota units held. Fishing by vessel stops if by-catch allocation exceeded or if adequate by-catch allocation not held.

Possibly could be generalised to tradable environmental impacts of other kinds

- e.g. seabed habitat impacts



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Environmental offsets to generate new conservation revenue streams, target improvements where they will get the best total benefit

- Discussed more fully by others

Direct influence on the market price or access related to environmental performance - Getting the information 'out there' and used

- Ecolabelling (e.g. Marine Stewardship Council)
- Business to Business procurement policies (eg Sustainable Fisheries Partnership and FishSource)
- Consumer awareness (e.g. seafood choice cards)
- Direct market linkage proving much more effective than consumer awareness alone



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Financing

'Rotating fund' approaches for industry redirection

- Purchase of licences/quota units) and lease/resale with environmental covenants (e.g. gear type)
- operational upgrades with environmental benefits (e.g. gear, efficiency, bycatch, camera & other vessel monitoring systems)
- Several examples (esp. in California)

Fishery improvement and business transition investment funds

- Focus 'socially responsible' investment funds and business capability
- e.g. Conservation and Community Investment Forum (www.cciforum.org) in Pacific, N&S America, Indonesia
- widespread and in-depth reviews across many countries and regions of specific opportunities for investment that 'make sense' financially and environmentally



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Financing continued - Marine Conservation Agreements

- Includes leases, licenses, easements, management agreements, etc that are often multi-faceted and multi-year
- Includes examples with governments, communities and businesses
- Increasingly used, with examples in Pacific, Coral Triangle, Tanzania, New York and New England States of US, Canada
- Includes examples of MPA establishment
- The Kiribati “reverse fishing license” where government is paid to forego fishing and developing other conservation oriented uses, instead of the usual arrangement of being paid for authorizing fishing access.
- www.mcatoolkit.org/Overview/Overview.html

Environmental bond for access to sensitive areas/ operations

- Redeemable on adequate operational performance
- No marine examples but an extension of similar approaches in other fields (e.g. terrestrial developments)



Market Based Instruments for environmental and fisheries outcomes - a further challenges

Integration of on and off reserve fishery management for regional ESD outcomes

- Currently a mix of legislative, policy and regulatory approaches
- Often with different standards, assessment methods and tools
 - fisheries legislation, Statutory Fishing Rights, Harvest Strategy Policy, Ecological Risk Assessment/Management, extensive spatial management
 - environmental legislation, Bioregional Marine Plans, NRSMPAs, TEP species identification and management (including Conservation Dependent category)
- ⇒ Improve coherence
- ⇒ What MBIs align with achieving regional ESD goals
 - within relevant sectors
 - autonomous rationalisation pathways across sectors
 - e.g. cross sectoral tradability of access/impact allocations?



Market Based Instruments for environmental and fisheries outcomes

Thank you



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