

# Using a Wellbeing Lens to Evaluate Fishery Instruments



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# Introduction

- There is a well-established set of 'instruments' used in management and governance of fisheries, as well as some newer emerging ones...
- These range from low-level operational tools to higher-level tactical and strategic management, through to top-level governance choices.
- There are various 'disciplinary' means to evaluate such instruments, but few integrated & cohesive frameworks... this paper is a very preliminary exploration of one such approach...



# 1. Operational Management Instruments

At the short-term level, management tools include limits on allowable gear characteristics (size of mesh, size of hook, etc.), limitations on fishing areas and seasons, and choices relating to enforcement of fishery regulations (such as the use of vessels or aircraft, etc.).



## 2. Tactical Management Instruments

At the broader tactical level of management, there are choices among the possible instruments used, i.e. whether catch (TAC, quotas) or fishing effort controls (e.g., limited entry, fishing gear limits), and whether to link fisheries and other aquatic management, e.g. marine protected areas.



### 3. Policy & Governance Instruments

At the broadest level, the choices deal with values and visions, the balance among objectives and the desired policy instruments, such as (a) community- or market-based instruments, (b) the use of co-management and participatory approaches, and (c) links of fisheries to broad concerns, such as ecosystem health, human rights, trade, regional development).



# Evolution in Assessing Fishery Instruments

- Fishery management tools were and often still are assessed on the basis of two narrow criteria, namely the impact on the size of the fish stock and on rent generation.
- This left out broad ecosystem interactions and ecological impacts of fishing, omitted social & cultural considerations, and limited its lens to rent generation and a narrow view of economic efficiency.
- That may be suitable for operational management instruments, determined using a relatively narrow analysis.
- But higher-level tactical choices (e.g. the TAC) have broader impacts so need a correspondingly broader assessment.
- Strategic policy and governance must incorporate an even wider range of ecological and human dimensions.



# Rationale for a Wellbeing Lens

- There are often major gaps in fishery assessment, and thus in the decisions made concerning fishery instruments and policy directions.
- Accordingly, the focus here is on developing an improved mechanism for assessing the effects of fishery instruments, thereby improving the decision-making involved in selecting among the instruments.
- Broader fishery assessment, management and governance frameworks include indicator systems, governance systems, etc.
- Here we focus on an emerging approach based on 'wellbeing' and the application of a 'wellbeing lens' to fishery decision-making.



# Wellbeing

- "a state of being with others, which arises where human needs are met, where one can act meaningfully to pursue one's goals, and where one can enjoy a satisfactory quality of life" (McGregor 2008).
- Reflects a multi-dimensional approach to assessment of human wellbeing in which three perspectives are taken into account:
  1. **Material** dimension focuses on what (resources) a person has and the extent to which the needs of the person are met,
  2. **Relational** dimension considers social relationships which the person engages in to pursue wellbeing (for example, relations which give access to market or resources, or shape behaviour through institutions, family and social structures),
  3. **Cognitive** (subjective) dimension accounts for satisfaction with the quality of life they achieve (e.g., 'happiness').



# Wellbeing and Fishery Connections

- The premise of wellbeing, one often absent in fishery decision making, is that all three WB dimensions must be considered.
- The wellbeing approach, relative to approaches that focus solely on material goals, also incorporates subjective dimensions.
- The wellbeing approach, relative to approaches that also include subjective aspects, incorporates material & relational wellbeing.
- But many individual attributes of wellbeing are well known in the literature, reflecting a growth from earlier days of a narrow focus to a broadening over the past two or three decades.



# Examples

1. Despite many studies of importance of fishing as a 'way of life', subjective elements have been largely neglected in practice, with their incorporation into fishery policy has been minimal.
2. The emergence and growing dominance of the co-management approach recognizes a relational dimension: past views of fishery management as top-down shift, to institutionalize the governance interaction among fishers and between fishers and government.



# Wellbeing Assessment for Fishery Instruments

- Challenge: assess and decide among various types and levels of fishery governance and management instruments.
- “The social wellbeing approach provides researchers and policy makers with ... a possible basis for the design of the institutional arrangements of governance so as to secure greater legitimacy and compliance for policy.” (Coulthard et al. 2010)
- This paper looks at 8 instruments, ranging from operational to high levels of fishery governance, exploring how each instrument might be connected to the three categories of wellbeing...



**Oper'l  
Mgmt**



**Policy  
& Gov**

<b>Management or Governance Instrument</b>	<b>Connection to Material Wellbeing</b>	<b>Connection to Relational Wellbeing</b>	<b>Connection to Subjective Wellbeing</b>
<b>Regulation of gear dimensions (e.g. net mesh size)</b>	Directly affects catch levels and livelihoods/profits	Low, since this is seen as 'technical measure' only	Low, since this is seen as 'technical measure' only
<b>Closure of certain areas to fishing</b>	Directly affects catches and livelihoods/profits but only for certain fishers	May lead to tensions if some fishers displaced to neighbours' fishing grounds	May have strong negative impacts for certain fishers with emotional bonds to an area
<b>Permanent marine protected area</b>	Seems same as for closed area, but need to look at difference	Seems same as for closed area, but need to look at difference	Seems same as for closed area, but need to look at difference
<b>Limited entry licensing</b>	Those with recognized secure rights improve material wellbeing	Can create conflict and tension in a community based on winners/losers	Creates winners and losers – and loss of subjective wellbeing for losers
<b>Market-based ITQ scheme</b>	Large positive or negative impacts, fisher dependent	May change from cooperative culture to one of market competition	Very negative for crew and others left out of the system
<b>Implementation of vessel buyback</b>	May favour those with capital, or may use government funds to assist relatively poor	Perhaps relatively low connection, and low negative impacts	Buyback can be a 'pressure relief valve' for those wishing to exit
<b>Co-management arrangements</b>	No direct link to income, etc.	High positive impact if fishers empowered	High positive impact if fishers empowered
<b>Choices of values, priorities &amp; goals</b>	Moderate: While no direct effect, some will perceive these choices as having strong effect on incomes/livelihoods	Close connection: collective choices may run cause conflict in relations between groups, communities, etc.	Close connection: these collective choices may be in line with or contrary to individual preferences

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<b>Ecosystem Approach to Fisheries</b>	Often involves temporal tradeoffs in material WB between present and future	Can be top-down or fully participatory, so this depends on implementation	Improving local environments may be positive, depending on...
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# Illustration: Canadian Lobster Fishery

Examine features of the fishery from a wellbeing lens...

- Lobster fishery as engine of coastal community economy
- Longstanding well-accepted value-driven management framework
- Local Lobster Fishing Area (LFA) (co-)management committees
- Tradition of informal management and enforcement rules
- Limited entry + trap limits + closed seasons + biological rules
- Government-initiated license stacking (vs. owner-operator rule)
- Government-proposed option of shifting to quota management



# Conclusions

- Wellbeing combines material and subjective (relational, cognitive) dimensions, providing a cohesive framework that could be used with a suitable indicator system.
- Preliminary indications are that subjective wellbeing is crucial to evaluate instruments at higher levels of governance, less so for instruments at operational level.
- It is an open question how much 'weight' to place on the various wellbeing components in a given evaluation of an instrument.

