

Institutions, Policy Coherence and Marine Science

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Structure of Talk

- Why marine governance institutions matter to scientists
- What is changing with regard to marine governance institutions
- What do the changes mean for all of US?
- Illustration – High Seas
- Illustration – Canada

Why does governance matter?

- The institutions *make decisions* and the institutions *implement* management
- To do this well they have to:
 - Balance competing needs of many society sectors, and of society with the environment
 - Adapt to change (whatever the cause)
 - Align incentives with desired outcomes
- Wise decisions require *knowledge* and mandate, legitimacy and credibility

This matters to Science because:

- We are expected to provide the *knowledge*
- To do THAT well, we must know:
 - the key features of the system being used
 - the key features of the activities being managed
 - how those engaged in the activities will respond to the incentives that are available
 - how to use that knowledge to support identifying objectives, indicators, decision rules etc.
- When we do not do these things well, support (social AND financial) for science decreases

What has changed?

Pre-1977 and 2+ decades since -

- Marine (and coastal) management has been sectorally based
 - UNCLOS designed that way;
 - FAO (via RFMOS) manages fisheries internationally, Fisheries Ministries in EEZs;
 - IMO manages shipping,
 - ISA manages mining, ... etc
- Biodiversity agenda was growing since 1960s, but focus was nearly exclusively on terrestrial biodiversity issues

What has changed - recent

- Integrated management taking root – especially coastal, but increasingly marine
- Biodiversity community looking to the seas
 - Started with IUCN Redlist and CITES in 1996
 - MPA bandwagon in 2000s from CBD, IUCN
 - Many provisions of WSSD (Johannesburg)
 - Recovery goals for exploited species
 - Networks of MPAs including representative ones
 - UNGA resolution 61/105 (2006) and “ban bottom trawl” debate moved things to new level of attention

Key Commitment in 61/105

- “States to take action immediately, individually and through regional fisheries management organizations and arrangements, and consistent with the precautionary approach and ecosystem approaches, to sustainably manage fish stocks and protect vulnerable marine ecosystems (VMEs) ...”

What is the INSTITUTIONS issue?

- There are TWO sets of Institutions now in play in governance to deliver Resolution
 - Sectoral management bodies (legally) mandated to **manage** some human activity
 - These are trying to expand their activities into areas where they have no history, less expertise
 - Conservation bodies [CBD, CITES, RAMSAR] (legally) mandated to **protect** things
 - These are trying to expand their activities to be active in ecosystems where they have no history and limited expertise

Result –Policies and measures that are not coherent across agencies

- Fisheries agencies are trying to manage ecosystem components and impacts as if they are just more exploited stocks
- Biodiversity agencies are trying to import tools designed and tested for terrestrial ecosystem components and apply them in ecosystems with different dynamics
- Neither community is reaching out to the experts or clients of the other.

Consequences of policy / management incoherence

- Different agencies working independently to manage in the same places – one regulating activities, one conserving ecosystem components
- Can drive incentives and objectives further apart, not closer together.
- Can make management more costly, more divisive, less likely to achieve ANY objectives.

Illustration - International

- Convention on Biological Diversity
 - Adopted criteria and guidelines for identifying Ecologically and Biologically Significant Areas (May 2008)
 - Goal is supporting networks of MPAs to protect VMEs
 - working through IUCN, MCBI etc
- FAO –
 - Adopted criteria and guidelines for identifying Vulnerable Marine Ecosystems (August 2008)
 - Goal is to guide mitigation measures for fisheries to avoid serious adverse impacts to VMEs.-
 - working through RFMOs

Why is that a Problem?

- Duplication of effort
 - Incomplete range of expertise
 - Distrust of products from each other
- Ineffective suites of measures
 - CBD – more liberal application but no mandate to take management action
 - RFMO – narrow application but direct management impact
 - Measures not coherent and may conflict

Illustration – Domestic (Canada)

- Network of Marine Protected Areas (WSSD commitment, repeated in 61/105)
 - Parks Canada, Environment Canada, and DFO have different mandates to create MPAs.
 - No coherence to site selection across agencies, so no *network*
 - Management plans would be very different depending on agency
 - Departments competing for jurisdiction over ecological “gems”

Consequences for Domestic Fisheries

- “Ecosystem approach” focusing on fishery impacts on biodiversity
 - Seek measures to placate biodiversity critics
 - Loss of flexibility in management
 - Incentives aligned for one set of outcomes
 - Incentives designed industry by industry
- Attention to environmental drivers (and climate change) marginalized

Why should Science care about Policy incoherence?

- Demands and priorities multiply and compete
- Pressure for advocacy science mounts from all directions
- Best science not being identified and used
- Best outcomes not being realized
- Other issues of concern not getting attn.
- IT DOES NOT HAVE TO BE THAT WAY

Illustration – EBSA / VME Criteria

FAO:

- Uniqueness / rarity*
- Functional significance of habitat**
- Fragility***
- Life history attributes of species
- Structural Complexity****

SIMILARITIES FROM
COMMON WORKSHOP
ORIGIN (Ottawa 2005)

CBD

- Uniqueness / rarity*
- Special importance for life history stages**
- Fragility/ slow recovery***
- Biological productivity / diversity****
- Special importance to endangered species
- Naturalness

What can science do to help

- COMMON SCIENCE FORUM TO SERVE BOTH SECTORAL (human activities) AND COMPONENT (part of ecosystem) NEEDS OF ALL AGENCIES.
 - Networks need to be built
- Make science advice easily “translated” from sectoral to component perspectives
 - Terminology AND concepts

Positive Outcomes

- Sound, impartial science advice
- Agencies with different mandates have same starting point
- Incentives adjusted on same information
- Less duplication – greater consistency of policy and management
- Management more effective, conservation more likely
- Get other issues on their agendas (climate)