

**Marine Governance:  
Coherence or Integration of  
Biodiversity and Sectoral  
Management**

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# First section of talk

## Governance of Marine Fisheries and Biodiversity Conservation

Interaction and Coevolution

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# The Streams of Ocean Governance

- LONG history of separate streams of Policy development and implementation
  - CONSERVATION of COMPONENTS of marine biodiversity
  - REGULATION of Activities of Humans that could pose THREATS to marine biodiversity
- Why is this of fundamental importance
  - Conservation policies and agencies works best for STRUCTURE and indirectly for functions
  - Sustainable USE policies and agencies regulate level and form of PRESSURES; indirect for structure And function
  - More direct but incomplete feedback on effectiveness of conservation actions

# Time Course of their Relationships

800- 1950 - Separate worlds(streams)

Ignorance or benign neglect of each other

1950-1960 Intrasing Divergence

Sectorasl – Grow economies; “sustainably”

Conservation Biology – Protect special stuffand deal  
looming with crises

1980s” Increasing convergence of streams

Realizing commonality of drivers

Realizinf inter-dependence or outcomes

# Conservation of Marine Biodiversity

- GOALS – high degree of protection of special species and places
  - Species could be iconic, inherently rare, fragile
  - Places could be structurally complex, fragile (often biogenic), localized life history functions, biodiversity hotspots
- TOOLS – Highly prescriptive and interventionist;
  - Minimization of impacts or exclusionary access
- AGENCIES & Constituencies – Environment and Parks Ministries, ENGOs and activists

# Regulation of Uses

- GOALS – Allow socio-economic pursuits to create wealth / alleviate poverty, while keeping impacts “sustainable”, “within safe limits”. etc
  - Allow perturbations but only to degree that recovery would be “rapid and secure”
- TOOLS – Regulate where, when, how intense, and in what form(s) biodiversity was used directly or impacted indirectly in pursuit of goals
- AGENCIES and Constituencies – Sectoral Ministries, industries, economic portfolios

# Why is convergence:

## An Opportunity

- Pooling of knowledge for greater understanding
- Potential for complementarity of measures
- Economies of co-operative actions

## A Challenge

- Mosaic of knowledge leaves gaps with vague “ownership” and mismatches in areas of overlap
- Measures can conflict as well as synergise
- Lack of trust can lead to redundancies in regulation rather than efficiencies

# What is the Future for the Science-Policy Interface:

- The Naïve view:
  - Science will fill in the gaps in the mosaic of knowledge.
  - Regulatory alignment can reduce conflicts
  - Through working together we will develop trust
  - Consequently, greater coherence of policies and measures across sectors is inevitable



# Why this expectation is naive

- Our knowledge of the ocean will be incomplete and uncertain for some time to come
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- New ocean uses and changes to existing ones will continue
- Policy makers have to satisfy commitments / obligations to many pieces of legislation
- So definitive “science-based solutions” will remain elusive
  - Falsifiability is a limited policy aid
- Apparently “stable” outcomes will be disrupted by “externalities”
  - Marine genetic resources
- There are limits to how objectives for different goals can be aligned
  - (Relative stability vs landing obligation)

# But above all, humanity is not homogeneous

- Multiplicity of knowledge systems (later in session)
- Multiplicity of value systems among and within cultures.
  - Larger questions of coexistence of cultures beyond the scope of today's session
  - Fundamental differences in risk tolerances of those aligned with each governance stream

# Which risks am I talking about?

- Risks associated with errors in decisions at scope and context we presently work.
- Signal Detection Theory
  - Some variants now called Decision Theory
- Errors are inevitable if information is incomplete or uncertain
- Get to choose which type:
  - Misses – not taking a conservation action when in retrospect it would have been the appropriate action
  - False Alarm – Overregulating when no good is being done but costs increases or opportunities reduced.
- Decision rules can trade off the two types of errors
- Away from a 50:50 balance, increase in one type of error increase very non-linearly with reduction in likelihood of the other type.

# In a world of austerity....

- Inter-dependence is amplified
  - Need other streams to contribute to progress towards your goals
  - So you need to contribute to their progress
- Policies still accountable to your stream
- Used of tools can be multi-functional
  - Planning with some “discretion”
  - Need accountabilities with some “breadth”

# Integration or Coherence?

- Integration – Make a new “whole” from sectoral parts
  - “Break down the silos” a popular theme
  - But means losing independent identity for a merged one
    - Many costs: loss of identity (constituencies, mandates, control over use of your own tools)
- Coherence –
  - Coordinated planning, separate implementation
  - Sharing of data, common starting assessments
  - Common understanding of starting point (assessments), problems faced, and outcomes to be delivered
  - Designing most suitable mix of tools to deliver the outcomes from the shared understandings.
  - But deliver separate programs and and meet separate accountabilities

# Will Choice Be Integration or Coherence?

- Integration
  - Most direct accountabilities at all stages
  - Everything will be much more complex to DO as well as to plan
  - Requires willingness to make major changes to structures and processes of governance
- Coherence
  - Complexities of planning still there but delivery much simpler
  - Requires much less change in governance
  - Requires much greater TRUST across streams.

# World Ocean Assessment

# What was it?

- Call for “Regular Process” at WSSD -2002
- Assessment of Assessment parent-3 years
- 3 more years of UN Bureaucracy to formally create / approve the “Modalities” and Scope
- Oversight UNGA and ad hoc WG of the While
- Coordination Group of Experts (25)
- Writing by Expert teams for each chapter
  - Over 500 experts



# Contents

- 55 Chapters report status and trends –
  - 5 background and context
  - 5 Ecosystem Services (9weal))
  - 8 on Oceans as Source of Food
  - 16 On other Ocean Uses or Pressures (Hydrocarbons, other energy sources, shipping, tourism, land-based inputs etc)
  - Reston biodiversity by regions, vulnerable species groups, vulnerable r habitats
- Synthesis and SDM

# Why is it different from all the other Emerging “Global Assessments”

- UN oversight, NOT “self-appointed experts”
  - UN oversight means very limit policy CONCLUSIONS (like IPCC)
- UN oversight ALSO means countries CANNOT walk away from contents in policy-making
  - They approved SCOPE, PROESS and PARTICIPANTS
- Being a SCIENTIST articulately advocating policy implications of science assessments means you become seen as ADVOCATE articulating using science assessments for your policy objectives