Developing a Prototype Marine Cadastre for Chedabucto Bay, Nova Scotia, Canada

... or is it St. Margaret's Bay?

Dr. Michael Sutherland, CANADA
Chair-Elect, Commission 4
FIG

EILAT 2009, FIG WORKING WEEK, EILAT, ISRAEL MAY 3-8, 2009

INTRODUCTION
Working Group 4.3 – Administering Marine Spaces
(Joint with Commission 7- Cadastre and Land Management)
Dr. Michael Sutherland – Canada

MEETINGS
FIG Meetings and Working Weeks (International research)
UNB/FIG Workshop on Ocean Governance and Marine Cadastre – Canada 2003
PCGIAP Workshop on Administering the Marine Environment – Kuala Lumpur, Malaysia 2004

• General discussion of issues
• Asia and Pacific Region
• Europe
• North America
• Africa
• Small Island Developing States
The Governance Challenge

Context
Technical

Norms, Social Values

Informal, formal arrangements

Laws

Stakeholders
Knowledge
Resources

Context
Social

Many Types of Information

Water Quality
Property Rights
Seabed Characteristics
Spatial Extents
Marine Contaminants
Shoreline Changes

Accurate
Up-to-date
Complete

GOOD GOVERNANCE
Stakeholder Identification

Addressing:

- Lack of knowledge
- Government silos
- Single issue focus
- Property rights uncertainties
- Jurisdictional uncertainties, gaps, and overlaps

Stakeholder Engagement and Input

Addressing:

- Genuine consultation
- Collaboration, coordination, cooperation, integration ...

Diagram:

- Vertical Coordination
- Horizontal Coordination
- Temporal Coordination
- National
- Future
- Government
- Present
- Local
- Government Other Stakeholders

_After Prescott [1985]_
• Sovereignty
• Legislative jurisdiction
• Administrative authority
• Complex private and public rights
• Overlaps and gaps
• Boundaries: not defined or ill-defined
Many Other Types of Marine Boundaries

- Customary Rights
- Riparian Rights
- Public Access Rights
- Navigation Rights
- Fishing Rights
- Development Rights
- Seabed Use Rights
- Mineral Rights
- Riparian Rights
- Public Access Rights
- Development Rights
- Seabed Use Rights
- Mineral Rights

After Sutherland, 2001-05

THE AUSTRALIAN MODEL

Sustainable Management

- Land Activities
  - Urban & Industrial Development
  - Agriculture
  - Tourism
  - Marine
- Coastal Activities
  - Tidal Interf
  - Marine Parks
  - Aquaculture
- Marine Activities
  - Fishing Zones
  - Defence
  - Shipping

DESCRIBE
VISUALISE
REALISE
Web-GIS / Mapping Technologies

Internet

Source 1
• Caris files
• ESRI shape files

Applet Viewer

Source X
• Oracle 9i
• Orthophotography
"Initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC) to develop, implement and sustain a network of data providers and users that will support secure access to data, information and applications, for decision-making by coastal and ocean managers and users of coastal and ocean space and resources"
Dr. Sue Nichols, UNB; Dr. Michael Sutherland, UWI; Mr. Brad Fay, Nova Scotia; Ms. Katie Komjathy, UNB; Mr. Daniel Jones, UWI
COINAtlantic Search Utility:
http://www.marinebiodiversity.ca/COINAtlantic

COINAtlantic Marine Cadastre Prototype:
http://64.28.139.197/marine-cadastre/default.aspx
Developing a Prototype Marine Cadastre for Chedabucto Bay, Nova Scotia, Canada

... or is it St. Margaret's Bay?

Dr. Michael Sutherland, CANADA
Chair-Elect, Commission 4
FIG