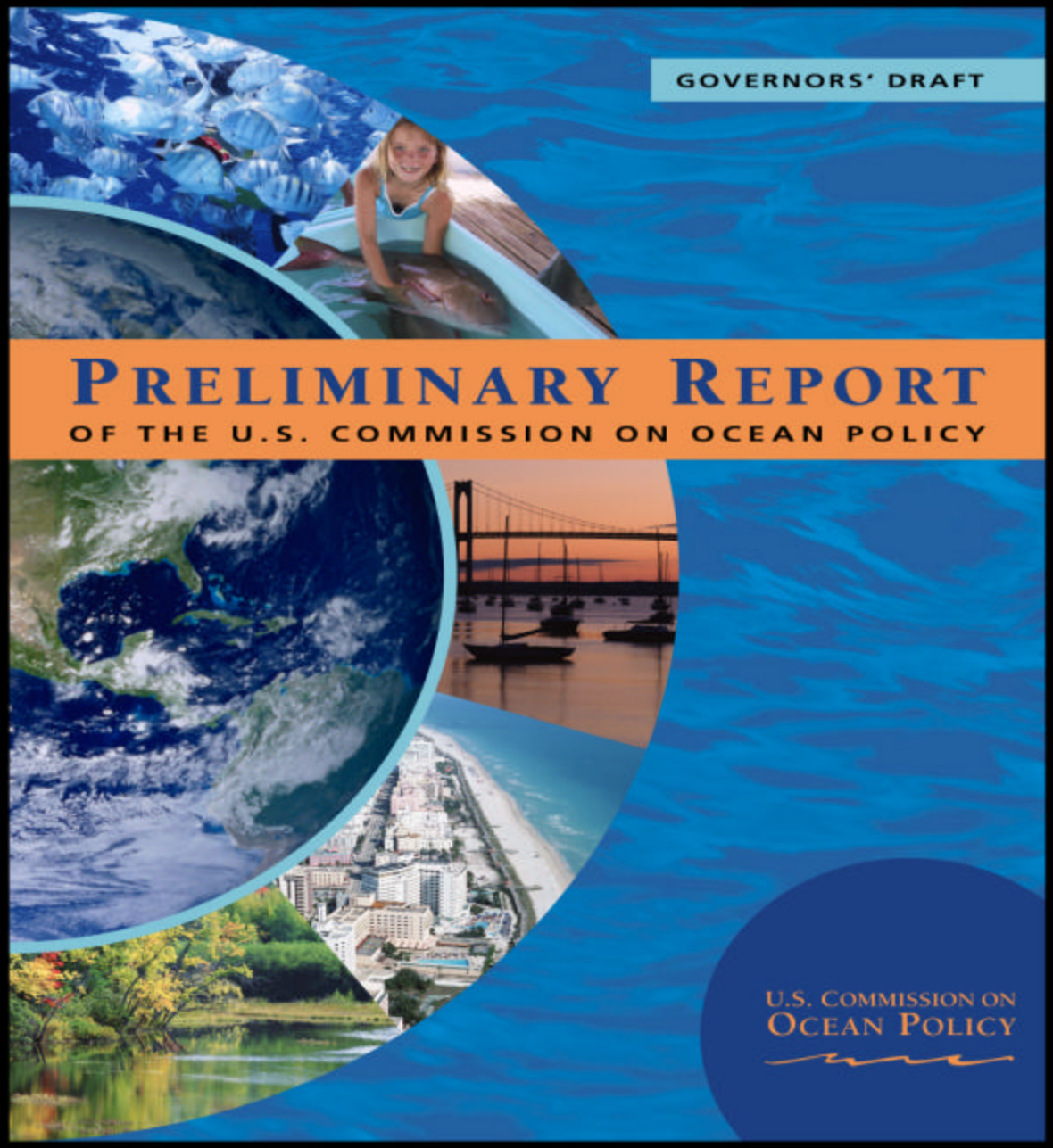

EMAP 2004 Symposium

Ecosystem Management and Monitoring

A blueprint for ocean policy in the 21st Century

Frank Muller Karger
US Commission on Ocean Policy

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Background

- Stratton Commission report 1969
  - The ocean is a “new frontier” for resource development
  - Emerging threats to coastal environment from overexploitation and pollution
  - Presented a detailed plan to reorganize Federal ocean and coastal programs
    - 1972: Creation of NOAA
    - Coastal Zone Management Act

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The Present Situation

- Oceans and coasts are major contributors to the U.S. economy
- Our knowledge of natural systems has advanced
- Significant regional science capacity and infrastructure

- Despite progress, ocean and coastal ecosystems are in trouble
- Scientific community does not reflect the diversity of the population
- The public is not aware of the importance of oceans
- Management regime is outdated
- Ocean policy = Management by crisis

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Action

- Oceans Act of 2000
  - 16 Commissioners
  - 15 public hearings, additional regional site visits
  - Draft report to governors and the public released on April 20
  - Comments due 21 May
- http://oceancommission.gov

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Guiding principles

- Public trust doctrine
- Sustainable use of resources and precautionary approach
- Ecosystem-based management
  - Considers relationships among air, land, water, humans, other species
  - Transcends artificial jurisdictional boundaries
- Improved governance
- More science
- Better education

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Improved Governance:

A New National Ocean Policy Framework

Components of the framework:

- National Ocean Council
- Presidential Council of Advisors on Ocean Policy
  - *Nonfederal*
- Regional Ocean Councils
  - *Inclusive and voluntary*

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Balancing Economic Growth and Conservation:

Improving the Management of Coasts and Watersheds

- Strengthen CZM to enhance the management capacity of state and local governments
- Consolidate federal coastal programs
- Reduce incentives that encourage inappropriate growth
- Coordination of habitat/sediment-related activities
- Integrate the marine transportation system
- Enhance coastal research and monitoring

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Maintaining Coastal and Ocean Water Quality:

Coastal and Ocean Pollution

- Multiple sources of pollution
  - Point, nonpoint, and airborne sources
  - Trash washed into the ocean and onto beaches
  - Vessel pollution
  - Atmospheric pathways
  - Invasive species
- Leads to nutrient enrichment, oxygen depletion, toxic contamination, sedimentation, viruses and bacteria that threaten human health, introductions of invasive species, and many other problems.

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Maintaining Coastal and Ocean Water Quality:

Creating a Monitoring Network

- Establish a national water quality monitoring network
- NOAA, EPA, and USGS should lead this effort
- Monitoring efforts should result in timely and useful information products
- Federal partnerships with academia, industry, states
- Water quality monitoring should be linked to the IOOS and eventually all Earth observations

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Enhancing the Use and Protection of Ocean Resources:

Problems Identified

- Overfishing in many regions
- Human impacts on marine mammals and endangered species
- Threats to coral populations
- Confusing regulations for marine aquaculture
- Lack of planning for new uses in offshore waters

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Promoting International Partnerships:

International Leadership in Ocean Issues

- Many of the problems found in U.S. waters occur around the globe

The U.S. should:

- Adopt exemplary policies at home
- Accede to the Convention on the Law of the Sea
- Improve the integration of ocean-related expertise into U.S. policies on international issues
- Assist other nations in building scientific and management capacity

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Costs and Revenues

- Estimated new costs for recommended initiatives
  - Approximately $3.2 billion per year after ramp-up
- Create an Ocean Policy Trust Fund
- Source of Revenue
  - $4 billion in unallocated OCS funds
  - Other new offshore uses

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The Goal

- Bountiful, sustainable oceans and coasts that benefit all Americans
  - Economically vibrant coastal regions
  - Healthy, productive, diverse ecosystems
  - Improved public health and safety
  - Science-based decisions
  - Higher student achievement and a widespread stewardship ethic
  - Strong U.S. involvement in international ocean management

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The Time to Act is Now

- An opportunity is at hand, but…
- Collective and sustained efforts will be needed to achieve change