Sustainability Linkages in the Federal Government

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Sustainability Symposium

National Academies of Science

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Rationale

- Understanding the linkages (across agencies) and among domains (energy, water, land, health, ecosystem services, non-renewable resources, etc.) is essential to develop policies and programs supporting long term sustainability.

- These linkages pose potential constraints to many key components of sustainability and are generally not considered in sustainability discussions or analyses. The policy implications of such linkages need to be explored and communicated to government agencies.

Multiple Sponsors

- Federal Agencies –
  - NSF, EPA, DOE, USGS, NASA, USDA and NOAA
- Non-Federal Sponsors –
  - Packard Foundation, Mitchell Foundation, BP, Lockheed Martin

Committee Membership

- **Thomas Graedel (Chair) (NAE)** – Yale University
- **Robert Anex** – University of Wisconsin-Madison
- **Bill Carroll** – Occidental Chemical Corporation
- **Glen Daigger (NAE)** – CH2M HILL
- **Faye Duchin** – Rensselaer Polytechnic Institute
- **Paulo Ferrao** – Technical University of Lisbon
- **Howard Frumkin** – University of Washington
- **Sally Katzen** – New York University
- **Anna Palmisano** – U.S. Dept of Energy (retired)
- **Steve Polasky (NAS)** – University of Minnesota
- **Lynn Scarlett** – Resources for the Future
- **Bob Stephens** – Multi-State Working Group on Environmental Performance
- **Deborah Swackhamer** – University of Minnesota
- **Thomas Wilbanks** – Oak Ridge National Laboratory
- **Lauren Zeise** – California Environmental Protection Agency

Sustainability Silos in US Government

Environmental quality (EPA)

Land (DoI)

Health (DHHS)

Minerals (USGS)

Food (USDA)

Water (NOAA)

Energy (DoE)

Sustainability Silos of the Experts

Environmental quality (ecologists)

Social Sciences?

Food (agronomy, soil sci, plant sci)

Land (geographers)

Health (health professionals)

Water (hydrologists)

Minerals (geologists)

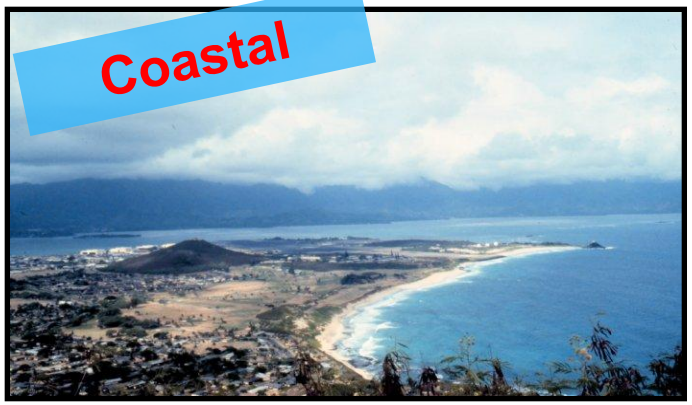
Energy (engr, material sci)

Objectives

- To identify and describe the most critical linkages addressing complex domains, with potential sustainability impacts highlighting temporal, geographic, and spatial differences.

- To develop an analytical framework for decision-making to assess the consequences, tradeoff/synergies of policy issues involving a systems approach to long term sustainability and decisions on sustainability-oriented programs. The framework will include social, economic and environmental dimensions of sustainability.

Case Study Approach



Puget Sound; Great Lakes

Phoenix; Philly

Mohave; Platte River

Sustainability Linkages in the Federal Government

- First meeting: September, 2011 (Washington, DC)
  - Presentations from 11 sponsors as well as several panels
- Second meeting: February, 2012 (Seattle, WA)
  - coastal systems
  - All domains, partnerships, collaborations
  - Puget Sound and the Great Lakes
- Third meeting: April, 2012 (Omaha, NE)
  - Non-urban, regional areas; land, water, and energy linkages
  - Mojave Desert, Platte River Recovery Impl. program

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- Fourth meeting: June, 2012 (Tempe, AZ)
  - urban areas
- Fifth meeting: July, 2012 (Woods Hole, MA)
  - Closed meeting to draft consensus report
- Sixth meeting: October, 2012 (Washington, DC)
  - Finalize report

Preliminary Findings

* (Just kidding, Marina…!)

Things from Here to Bring There
(not a research agenda, but a sustainability agenda)

* Can't be done by Feds alone
* Can't be done by scientists alone
* Get past talking and research – get into the field
* Many solutions in hand – put them together in coherent, strategic way focused on place-based issue
* Find partnerships that 'Admirals' can claim as wins
* Keep learning from failures and mistakes; adapt!
* From this, add to the knowledge system

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Additional information can be found at the STS website:

nas.edu/sustainability