Blue Carbon

Are our wetlands less valuable?

Hope Diamond
VALUE
Paradox of Value (diamond-water paradox)

The idea: Although *water* is more useful (need it to survive) than diamonds, diamonds command a higher price.

Are wetlands worth less than diamonds?
Do they serve as an important function as water?
More than diamonds?
Demonstrating Value

They can be monetary

They can be non-monetary

1, 2, 4, 8
Value of Ecosystem Services

Seagrass

Ecosystem Services
- Gas regulation
- Disturbance regulation
- Nutrient regulation
- Water regulation
- Raw materials
- Ornamental resources
- Recreation
- Science and education
- Spiritual and historic

Ecological Function
- Habitat
- Modify current velocity
- Sedimentation patterns
- Nutrient cycling
- Carbon sequestration
- Food source

Bio-physical Function
- Photosynthesis
- 3-D Structure

Constituents of Well-Being

- Security
  - Personal safety
  - Resource access
  - Secure from disasters
- Material
  - Livelihoods
  - Food
  - Shelter
- Health
  - Strength
  - Feeling well
  - Clean air and water
- Social Relations
  - Social cohesion
  - Mutual respect
  - Ability to help others

Freedom of Choice and Action
Opportunity to be able to achieve what an individual values doing and being

Value connected to well-being
Value of Blue Carbon

Where will the value of blue carbon be generated?

No surprise, DEMAND.

But does blue carbon go it alone?

**Co-benefits** are always talked about no matter what specific ecosystem service we are interested in.

- Carbon sequestration and co-benefits.
- Storm protection and co-benefits
- Recreational fisheries enhancement and co-benefits
STICKS AND CARROTS
Blue Carbon suffers from “non-proximal demand and supply”

Policy directives in the development of BC markets are necessary but not sufficient.

Involvement by the private sector firms (land holders) are a necessary partner.
Important First Steps

Restore America’s Estuaries (RAE) began to develop, with support from NOAA, the first globally applicable tidal wetland and seagrass restoration greenhouse gas offset methodology.

Starts to create certainty – Applicable worldwide

The combination of certainty of methods and applicability worldwide is critical in private sector participation.
Opening up Policy Space

Presidents Council of Advisors on Science and Technology (2011) called for the Federal government to “... launch a series of efforts to assess thoroughly the condition of U.S. ecosystems and the social and economic value of the services those ecosystems provide.”

- Regulations-NRDA, Magnuson-Stevens
- Enabling Legislation-NEPA, CZMA, ESA, FWCA, WRDA (P+G/R)

The space is there, and getting better, it’s just a matter of applying it!
White House Task Force - OSTP

• Research strategy for the Federal family for the next 10-15 years;

• Need to explicitly link bio-physical structure and function to human well-being, and;

• Will need places to pilot this work.

Due out early Summer 2015
This ecosystem services strategic vision is meant to guide effort across NOAA

Principles:
• Tie ESV to decision making. Policy or management question.
• Measure changes in ES and value them.
• Consider the full ecosystem services spectrum.
A series of roundtables throughout the country focused on natural capital.

Carbon sequestration was prominent at the first roundtable in Houston.

Roundtables will take place during 2015: Houston, Cleveland, New York, Palo Alto
Finally - Communicating “It”

• This is our constituency.

• If we can’t communicate it to our grandmothers and next door neighbors we are missing a large and influential piece of the population.
Thank You

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