



Ecosystem Services

The benefits people obtain from nature

Payments and Markets – Case Studies from the USA

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Todd Gartner, M.F.

Senior Associate

Conservation Incentives and Markets

tgartner@wri.org



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The World Resources Institute has four programs



What is the Partnership Working For?

Increasing the Pace, Scope, Effectiveness of Conservation



- Investing in what Mother Nature would invest in.
- A fair and transparent way for people to **measure, track, report, buy and sell** the benefits of restoration.
- Rules and tools that make restoring things that matter a practical business decision.



Agenda:

- Ecosystem Services Framework
- Investment Drivers
- Case Studies
- Questions

Remembering Aldo Leopold

“Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest.”



“Emerging markets....will provide landowners with expanded economic incentive to maintain and restore our forests”



Payments for Nature's Benefits...

Arrangements for placing economic value on natural assets normally "outside the market"

Environmental services not properly valued → systems become degraded;
fragmentation, erosion

Agr lands becoming recognized as an asset (monetarily);
provide water, recreation, BioD,

Financial systems that enable people who produce products and services to be compensated by those who benefit



PES Based Approach – Framework Elements

Demand:

- created by law/regulation
- business and economic case

Supply:

- protected areas
- private lands



Market infrastructure:

- stakeholder engagement (buyers, sellers, brokers/aggregators, regulators)
- rules & standards: protocols for measuring, monitoring, verification (clear science)
- institutions (exchange or meeting place, registry)

Assurances that cover risks: quality, permanence, potential for reversal

Accessible information for stakeholders



Vision of a Environmental Marketplace

Sellers



Products



- Restoration
- Improved Practices
- Preservation



Users

- Water District/Utility
- Rate Payers
- Industry
- Recreation

Government

- EQIP
- Dedicated Pool

Land Use Planning

- Current Use Tax
- Zoning/TDR
- Easements

Philanthropy

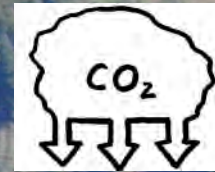
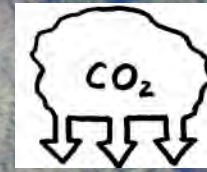
- Program related investment
- Grants
- Revolving Loans

Buyers/
\$ Sources

Recreation
leases



Cost Share



Carbon sequestration



Sustainable
forestry/agriculture



Wetland restoration and
Water quality trading



Species recovery



Conservation easement

Imagine...

The portfolio approach to
forest management:
multiple income streams

Starts with Demand

Regulation, Avoided Cost, The right thing to do

- **Regulations:** Wastewater, stormwater, road maintenance and construction, new development, energy facilities
- **Avoided cost:** Reduced risk for drinking water, flood reduction
- **The right thing:** Green labels, license to operate



Range of Payment Mechanisms

**1. Public benefits-driven transactions
(Government or Philanthropic Payments)**



2. Market/Regulatory-driven transactions



3. Privately negotiated business-driven transactions





United States Department of Agriculture

America's Farm Bill



2008

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Improve the Environmental Effectiveness of Conservation Funding



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Tualatin River, Oregon

Restoration for compliance, converting...



Cooling Towers

\$60 -
\$150
million

35 miles of restoration
Additional instream flow

\$6 million

FROM THIS...



...TO THIS



Three Keys to Success

Ecosystem Markets


- **CLEAR DEMAND:** Law/regulation, businesses, or funders that are on board
- **CLEAR PATH:** Approved standards and protocols for measuring ecosystem services and implementing credit-generating projects
- **CLEAR RISK:** Third parties willing to finance and deliver compliance-grade projects



Crediting Protocol

• Standards, Metrics, and Process

Joint Statement of Agreement
for an
Ecosystem Credit Accounting System
Issued and signed by organizational leadership
September 2009



Crediting protocol approved for use

Freshwater Trust

cotrust



US Army Corps of Engineers.



CleanWater Services
The science-based in place.

The Nature



NRCS



World Resources Institute

Crediting Protocol

• *Quantification = Translation = Investment*

What did you do?

- Trees planted
- Stream miles/acres treated
- Kilocalories



•You have 10 credits of premium quality

•Standards were followed

•Credits are registered, ready to sell

•Where can I sell credits?

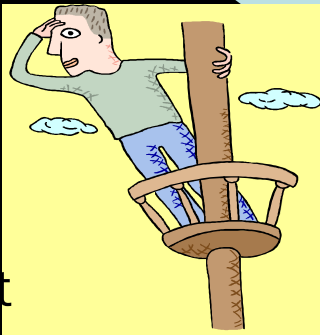
Verifier



Seller



Certifier



Registry

Regulator



•Standards look good to me