

Building Evaluative Capacity in Conservation and Environment: Challenges to The Evaluation Profession

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Overview of Presentation

- Context
- Four Working Assumptions
 - Lack of a dominant paradigm in economics in dealing with natural resources.
 - Yet major economic principles matter for evaluation.
 - Major knowledge gaps exist among/across natural and social sciences
 - Environmental evaluation is nascent
- From Lexicon to Substance: Key Barriers for Building Evaluative Capacity in this Sub-Field:
 - Technical Complexities
 - Institutional Quandaries
 - Today's talk mainly focuses on technical issues.
- Key lessons from the first three EEN
- Recommendations for Moving



Context:

Background About NFWF and Evaluation

- Foundation is a “quango” in its 3rd decade of existence, solely devoted to conservation with a cumulative total of well over \$1 billion in investments.
- “ “Outcome-based” evaluation is relatively new, driven by increased attention to “performance accountability”
 - Strong focus on impacts directed at ecological targets representative of larger ecosystems or other environmental media
 - Move to cost-effectiveness analysis in accounting for bottom line
 - While others are also moving in an outcome-based focus (e.g., U.S. federal agencies and PART), NFWF is transforming itself into a business model aimed at ecological returns.

Working Assumption 1: Traditional Economic Theory is Under Attack with No Dominant Paradigm

1. Resiliency characterizes human-ecological interrelationships (Brian Walker and David Salt. 2005. *Resilience Thinking*. Island Press)
 - Resilience, a system's capacity to absorb disturbances without a regime shift, is the key to sustainability"
2. Traditional economic models focusing on optimization of a marginal treatment effect focused on equilibrium models are not helpful; non-linear uncertainties influence risk taking with individuals looking to "satisfice" based more on past history than expected utility (Kahneman and Tversky. 1977. "Prospect Theory: An Analysis of Decision Under Risk")
 - Individuals emotionally react stronger to potential harms than benefits leads either to risk aversion or if insurance is presented, leads to morally hazard acts.
3. Institutional assumptions of competing individuals, unwilling to cooperate, will seek to maximize private gains of common pooled resources at expense of greater collective benefit are frequently faulty and dangerous models for guiding evaluation and policy making (Elinor Ostrom.1990. *The Evolution of Institutions for Collective Action* (Cambridge Press)
 - "What remains unexplained is how some appropriators overcome, and others do not overcome, the problems associated with collective provision..."



Assumption 2:

Three Major Economic Principles Matter Regardless of Paradigm Faults

1. Problem of over-consumption in common natural resources
 - Excludability is possible if resource is stationary but not if moving.
2. Information failures:
 - uncertainties exist regarding biodiversity and paths to change
 - Confounded by proprietary knowledge.
 - Confounded by mismatches among practitioners with social outcomes not well understood in intermeshing to physical environmental changes.
 - Information asymmetries influence transactions with motives for risk aversion in metric selection.
3. Government failures.
 - Federal agency survival and self-interest are particularly strong given adversarial approach to budget accountability with OMB's PART scheme.
 - Problem of inter-agency coordination is wicked and raises issues of mismatches of scale between political jurisdiction and ecological boundary.



Working Assumption 3: Knowledge Gaps Among/Across the Natural and Social Science Fields

- Inadequacy of Theory of Change:
 - Actions (strategies) → Changes on Human Treats → Responses of Environmental Stressors → Changes on Biological/Ecological Targets (Conservation Measuring Partnership/ IUCN)
- Inadequacy of Problem Definition:
 - Presumption: Human actions drive wildlife responses (e.g., exurbanized housing development patterns); few programs and initiatives are aligned to deal with this type of problem and instead requires coalescing of multiple partners.
- Inadequacy of Definitions of “Success”
 - If equilibrium and stable-state models are inadequate, then what takes its place?
 - Emerging Models Needing Testing and Fine-Tuning:
 - Problem of counting and double-counting with emerging scholarship from economists and ecologists involved with eco-system services
 - Problem of accounting for changes in individual attitudes/behaviors and social capital – when and how to assess cause and effect, especially in aligning “social conservation” with “physical conservation?”



Working Assumption 4: Nascence of “Environmental Evaluation”

1. People are entering this “sub-field” from all over the intellectual/professional terrain.
2. The focus is causing cultural changes among those in the conservation “community” at all levels; huge gaps exist in attitude between conservation practitioners, policy makers/grant givers, and ecological academics/scientists.



Diversity of Respondents in EEN: Education Level

	2006 %	2007 %	2008%
Undergrad Degree	13	11	8
Masters Degree	50	52	51
PhD	32	33	37
Other	5	4	4
Total N	78	113	124

At Master's Level: People were more likely to be in a professional field:

- 57% in a professional field (74% in 2007)
- 20% were in either social sciences or life sciences

At Doctoral Level: Most studied in a traditional science field:

- 29% in a life science discipline (34% in 2007).
- 22% in a traditional social science discipline (29% in 2007).
- 43% in a professional program (37% in 2007)

From Lexicon to Substance: Four Key Technical Issues

1. Problem of time horizon:
2. Problems of scaling
3. Problem of attribution with counterfactuals rarely utilized.
4. Problem of data credibility



From Lexicon to Substance: Four Key Institutional Barriers

1. Strong culture scientific faith with history of “pre-ante evaluation”
2. Poorly-trained professionals in conservation for outcome-based evaluation is leading others to enter the fray.
3. Some level of angst between funders and implementers for how best to balance the objectives for learning and accountability in the emerging evaluation protocols.
4. Over-optimism of traditional economic methods for evaluation given complexity/dynamics of eco-systems.



First Principles for Improving Evaluative Capacity

1. Limited (and probably fewer) resources will continue to be available for conservation and evaluation with increased urgencies for results from historic and past uses of natural resources.
2. We're all learning together with no one having a "magic" bullet – it is important to fight for more open, common standards for increasing learning curve.
3. We will be playing for awhile with institutional arrangements for doing better at evaluation and monitoring in building expertise and trust among competing stakeholders.
4. We are going to have to embrace uncertainty and resilience in educating and partnering with funders and policy makers
5. **Necessity to increase statistical sophistication and rigor in developing performance indicators (thinking beyond "acres protected")**



Key Findings:

*First Three Environmental
Evaluators Networking Forums*

*June 2006-June 2008,
Washington, DC*




Gaps in Evaluative Capacity


Participant Claim Experience with Various Evaluation Approaches

1. Impact Assessments (32%)
2. Needs Assessments (33%)
3. Process Evaluations (36%)
4. Experimental Designs (28%)

This Contrasts with What They Note as Major Concerns Technically

1. Standardizing methods
 2. Realistic variables
 3. Rigorous methods (frequently statistically defined)
 4. Complexities of scale
 5. Confounding variables
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Leads to Participant Perceptions of Where We Currently Stand....

1. Issues of concern:
 - Increased pressure for greater demonstration of program efficiencies given continued population growth consuming limited natural resources combined with an expanding federal deficit.
 - Strategies for identifying net impacts given unique complexities of evaluation of conservation efforts vis-à-vis practices used in other areas involving public and philanthropic spending.
 2. Current strengths:
 - Commitment and high level of passion for improving the state of environmental evaluation;
 - Commitment to seeking open standards and sharing of lessons learned.
 3. Current weaknesses:
 - Lack of technical capacity, compromising the rigor of research designs, methods of analysis and communication of knowledge to various stakeholders.
 - Lack of institutional capacity, including inadequate MIS systems and fragmentation of cross-organizational efforts
 4. Opportunities:
 - Increasing demand for credible evaluation results by policy makers in public agencies and private foundations.
 - Growing savvy of consumers for evaluation in learning about impacts of conservation, especially given advances in other areas of public and non-profit sectors (e.g., social services)
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And Where We Need to Go

Participant Articulation of Five-Year Goals for the Network:

1. Continued testing and improving the technical rigor and consistency of evaluation approaches.
2. Developing better information systems for collecting and sharing of information, particularly across organizations.
3. Nurturing and supporting emerging leadership within the network that can guide improved evaluative capacity in the larger conservation community.
4. Better integration of outcome-based evaluation strategies that can balance the needs of both funders and those doing implementation in the field.

Participant Recommended 5-Year Action Items for the Network

1. Clarify purpose of the network's focus and organization.
2. Foster improved communication of best evaluation practices through peer-review journals, newsletters, Internet, the formalization of the forum on an annual basis, and the development of an Internet-based clearinghouse.
3. Identify strategies for better funding mechanisms that encourage continued innovation and maturation of evaluation approaches in this field



And What We've Accomplished

- Summer/Fall 2009 *New Directions in Evaluation Journal* Volume devoted to methodological issues in program and policy evaluations
 - Time horizons
 - Scaling
 - Data credibility
 - Counterfactuals
- Summer/Fall 2009 *Journal of Evaluation and Program Planning* volume dedicated to the state of evaluation in environmental education.
 - Authors for both volumes come from participants in the annual Environmental Evaluators Networking Forum
- Scaling up of next year's EEN Forum to target individuals in regional and local governments and greater representation among those in non-profits.



Four Questions for Moving Forward

1. What is the current level of expertise for measuring “ecological returns” to conservation investments? Where is expertise weakest? What strategies and tactics should be developed in addressing the pertinent technical questions?
2. What types of expertise should we be seeking from evaluators? What types of expertise do they need to collaborate with others?
3. What can funders like NFWF do to partner better with NGO’s in building evaluative capacity using logic frameworks?
4. How do we create and nurture “clusters of experts” across the public, private and academic sectors in building and sustaining the network and contributions of evaluations to environmental-related decision making?



For more information....

http://www.nfwf.org/AM/Template.cfm?Section=Environmental_Evaluators_Network



Environmental Evaluators Network

Individuals in the fields of natural resource conservation and environmental management increasingly need to demonstrate the effectiveness and efficiency of projects and programs, particularly in terms of environmental outcomes. The purpose of the Environmental Evaluators network is to improve the field of environmental evaluation by fostering partnerships where we can share knowledge on innovative approaches and learn more systematically from our collective experiences.

The Network is comprised of environmental, conservation, and natural resource evaluators and evaluation consumers. Individuals from academia, consulting organizations, foundations, government agencies, and non-profit organizations are all welcome to participate. The membership is international.