Barriers and Bridges to integrating Eco-health into policy applications:
A “global reality check” workshop

Jerry Spiegel - Integrating Eco-health into policy applications: A framework for considering Barriers and Bridges

Brama Kone - Integrating Eco-health into policy applications: A West and Central African perspective

Rima Habib - Health Research and Policy in the Arab World: Dealing with a Changing Political Landscape


Mario Caffera - Arising bioclimatic issues for assessing dengue early warnings and related procedures at the southern boundaries of Aedes Aegypti in a Climate Change and Variability era

Edouard Kouassi - Discussant
1. What are the key barriers?

2. What are effective bridges?

3. How can a “global ecohealth policy network” assist?
1. What are the key barriers?

2. What are effective bridges?

3. How can a “global ecohealth policy network” assist?

- Are policy/political/problem “window” opportunities being adequately anticipated and addressed?
- Is progress being made to (accumulatively) strengthen capacities to address complexities?
- Is communication linking researchers and policy makers well-established or ad hoc?
Barriers and Bridges to integrating Eco-health into policy applications: A “global reality check” workshop

Integrating Eco-health into policy applications: A framework for considering Barriers and Bridges

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Figure 3-5 Knowledge cycle related to Adaptive Management policy cycle
• To date, EcoHealth initiatives have predominantly focused on case study applications to demonstrate the value of applying such an approach to understanding and addressing complexity...

A New Editorial Vision for EcoHealth
Objective

• To identify factors that must be considered to enable more systematic application of ecohealth-relevant policy options.
  – i.e. beyond scientific merit of “identified issues”

• To apply the concepts of “Barriers” and “Bridges” to effective policy formulation & implementation
  – Draw on an approach that historically has been pursued to explore the feasibility of adaptive systems to overcome the failure of linear modes of understanding and their policy prescriptions.

Outline

1. Overview of “policy” studies perspectives

2. Preliminary review of literature
   - Preliminary scoping review of articles citing key policy sources (18 meeting criteria of key citations)
   - Insights from recent Policy Science Interactions study

3. Discussion of key themes

4. Selection of some guiding questions to consider
A perspective on characteristics of Science versus Government agencies

<table>
<thead>
<tr>
<th>Science</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability accepted</td>
<td>Certainty desired</td>
</tr>
<tr>
<td>Inequality is a fact</td>
<td>Equality desired</td>
</tr>
<tr>
<td>Anticipatory</td>
<td>Time ends at next election</td>
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<tr>
<td>Flexibility</td>
<td>Rigidity</td>
</tr>
<tr>
<td>Problem oriented</td>
<td>Service oriented</td>
</tr>
<tr>
<td>Discovery oriented</td>
<td>Mission oriented</td>
</tr>
<tr>
<td>Failure and risk accepted</td>
<td>Failure and risk intolerable</td>
</tr>
<tr>
<td>Innovation prized</td>
<td>Innovation suspect</td>
</tr>
<tr>
<td>Replication essential for belief</td>
<td>Beliefs are situational</td>
</tr>
<tr>
<td>Clientele diffuse, diverse, or not present</td>
<td>Clientele specific, immediate, and insistent</td>
</tr>
</tbody>
</table>

Some Frameworks re EcoHealth & Complexity

Figure 1: The DPSEEA model

Figure 3: Prism Framework of Health and Sustainability

Cited in NESH, 2008
Policy Analysis & Decision-Making

Policy Analysis

Conflicts?

Evaluation

Monitoring

Implementation

Decision making
Policy Cycle

1. Agenda setting (Problem identification)
2. Policy Formulation
3. Adoption
4. Implementation
5. Evaluation
Kingdon (1983)

Political Stream

- Agenda-Setting
- Pre-decisional phase
- Alternative-spec

Decisional phase

Passed

Problem stream

Policy stream

Vetoed
"We conceive of three process streams flowing through the system – streams of problems, policies and politics. They are largely independent of one another, and each develops according to its own dynamics and rules. But at some critical junctures the three streams are joined, and the greatest policy changes grow out of that coupling of problems, policy proposals, and politics."

(Kingdon, 1995)
Fig. 1. Theoretical framework for the transformation of knowledge to policy actions.
“It must be realised that science is needed both to help develop the policy and to evaluate the policy. Science is before and after; policy is the meat in the scientific sandwich.” - Choi et al. (2005), “Can scientists and policy makers work together?” Journal of Epidemiology and Community Health, 59, p. 634.
Systems Approach increases our capacity to learn in complex systems by helping us see circular patterns of causation, a much more complex pattern than our default assumption that chains of causation are linear. By examining what structure created the problem of concern, we start to understand that our decisions create closed chains of causes and effects – feedbacks.....

Framing policy processes

Figure 5-1 Policy processes

Re-framing policy processes

Figure 5-2 Conceptual framework for policy science interactions enhanced by knowledge brokering

What is “knowledge brokering”?

• A **Knowledge broker** is an intermediary (an organization or a person), that aims to **develop relationships and networks** with, among, and between producers and users of knowledge by providing linkages, knowledge sources, and in some cases knowledge itself, (e.g. technical know-how, market insights, research evidence) to organizations in its network.

• While the exact role and function of knowledge brokers are conceptualized and operationalized differently in various sectors and settings, a key feature appears to be the **facilitation of knowledge exchange or sharing between and among various stakeholders**, including researchers, practitioners, & policy makers.

- Wikipedia (}
Framing Barriers (and Bridges)

Figure 5-3 Typology of barriers for policy science interactions

Barriers

1. Divergent *nature* of science and policy work
2. Lack of a neutral, safe *space*
3. *Performance* measurement systems
4. Horizontally-constrained *organizational structures*

…If the knowledge brokering activity is organised at the same moment as the window of opportunity is open, the activity can be successful….  
Bridges

1. Knowledge brokering
   - Processes
   - Strategies
   - Techniques
   - Tools
   - Individuals
   - Organizations

2. Systematic interactions (between “cultures”)

3. Intersectoral spaces (for policy)

4. Communities of practice

...The emergence of “bridging organizations” seems to lower the costs of collaboration and conflict resolution, and enabling legislation and governmental policies can support self-organization while framing creativity for adaptive co-management efforts. A resilient social-ecological system may make use of crisis as an opportunity to transform into a more desired state.

- Folke et al. (2005) Adaptive governance of social-ecological systems. *Annu. Rev. Environ. Resour*
Conclusion

Emerging EcoHealth communities of practice are especially well positioned to stimulate a transformation of how social and political institutions are responding to challenges of equity and sustainability...

... but can benefit from closer attention to the science and art of policy and science-policy interaction.
Guiding questions

1. Are policy/political/problem “window” opportunities being anticipated and addressed?

2. Is progress being made to (accumulatively) strengthen capacities to address complexities?

3. Is communication linking researchers and policy makers well-established or ad hoc?
1. What are the key barriers?

2. What are effective bridges?

3. How can a “global ecohealth policy network” assist?

- Are policy/political/problem “window” opportunities being adequately anticipated and addressed?
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