Distinctions among Adaptive (& Non-Adaptive) Management Approaches

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Management Alternatives

- Fixed policy/practice
- “Trial & Error” – random choice of new practices
  - Nobody does this
- AM as implementing new, provisionally optimal practices on the basis of feedback – Lee
- AM as implementing & varying policies in order to learn – Walters
  - Could be optimal, but not necessarily
- Adaptive governance – Brunner
Phrasing the Question

- Not: “Does AM work?”
- Rather: “Under what circumstances and at what levels can the various forms of AM work?”
“Ideology” of Kai Lee’s AM

– Information-rich incrementalism
  • M&E
  • Savvy coping philosophy
– Management responsiveness to feedback
– Observation _ scientific knowledge
– Public participants will concur with adaptations
“Ideology” of Carl Walters’ AM

– Scientific knowledge _ better long-term management worth short-term costs
  • Long-term investment philosophy
  • Existing science is inadequate
  • M&E alone is scientifically weak
– Existing policies may be greatly suboptimal, but we do not know
– Stakeholders will concur with “experiments”
Rationales for No AM

• If right science, don’t let temporary setbacks deter us
  – Success may be delayed
  – External shocks common

• Policy stability is very important
  – Mitigation requires certainty
  – Resource-users’ time horizons depend on policy certainty

• Flexibility permits undermining camouflaged as AM
Counterarguments

• Adaptive management justifies flexibility _ willingness of top policymakers to permit adaptation
• Adaptive management justifies flexibility _ mutual accommodation _ reduces risk of huge loss by resource users _ greater cooperation of resource users
Costs: Kai Lee’s AM

- M&E
- [Possibly] missed opportunities to identify non-varied policies or practices
- Some policy-variability uncertainty for affected parties
Costs: Carl Walters’ AM

- M&E
- Suboptimal practices for the sake of learning
- Some policy-variability uncertainty for affected parties
- Risk of clash between public preference & experiment
Meanings of “Success”

1. Adaptive management regime implemented
   – Walters’ map: Do the institutions permit experimentation?
2. Experiments yield scientifically sound findings & understandings
3. Experiments yield policy-useful findings & understandings
4. Better management
Circumstances of Tolerance for Lee’s AM

1. Absence of knee-jerk opposition to any modifications
2. Budget conditions permitting M&E
Circumstances of Tolerance for Walters’ AM

1. Absence of knee-jerk opposition to change
2. Budget conditions permitting M&E
3. Perception of low costs of suboptimality of practices designed for learning
4. Prior collapse of ecosystem and valued outcomes

   Garry Brewer: New England shell-fish exploitation

   Result was not adaptive, but could have been

   Note: collapse is a social construction
Scientific Success of Walter’s AM

- I.e., Do the experiments truly yield sound findings & understandings?
- Will the institutions permit the most insightful experiments?
- Do exogenous conditions permit lessons to be drawn?
Usefulness of the Science Findings & Understandings

– Are the findings & understandings at the level to be useful?
– Do they discredit policies that are not in the common interest?
– Do they convey the uncertainty needed for hedging strategies?
– Do they tell us how to hedge better against [remaining] uncertainty?
To Examine “Theoretically”:

- Tradeoffs between non-AM & AM
- Tradeoffs among AM alternatives
  - Overt costs & opportunity costs
To Inventory:

• Tradeoffs among values pursued
  – To determine the tradeoff frontier
• Institutional innovations
  – Efforts at AM
  – Governance
  – Economic
  – M&E
To Develop Evaluative Standards

• Realistic standards to avoid unreasonable pessimism
  – Probably more along Lee lines than Walters lines
• But also evaluating the scientific progress
To Evaluate:

• Institutional innovations
  – 2 levels:
    • Explicit AM efforts
    • Practices such as water markets
  – Implementability
  – Effectiveness of outcomes
To Identify:

- Conditions that make the innovations feasible
  - Scale that works
  - Natural system
  - Broader institutional context
- Strategies to enact the innovations
- Conditions in “borrower” settings that might benefit from the innovations
How to Think about Adaptive Governance

• Premise of accountability
  – The governors & the feds will have to be involved
  – The Mexican & U.S. governments will have to be involved

• Institutions as serving the functions of:
  – intelligence, promotion, prescription, invocation, application, evaluation, & termination
  – Being heard, opportunity to negotiate; formulate common interest
Option Space

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