

## **Key Players and Their Roles in Adaptive Management**

Chapter 12

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**Session Objective:**                      **By the end of this session, participants will be able to:**

- Discuss the roles of stakeholders, technical experts, and facilitators in the adaptive management process
- Understand the benefits of governance in AM
- Understand the steps to take when planning a AM stakeholder workshop

### Stakeholders

- Key to successful implementation of Adaptive Management (AM)

**Adaptive Management involves the commitment of time, resources, and active engagement of stakeholders**

*DOI Technical Guide*

### Organization of this chapter

- Key players in the AM process
- Stakeholders: Why bother?
- Stakeholder analysis: Choosing the right participant
- Stakeholder organization: Developing a governance system
- Roles of stakeholders, facilitators and technical advisors
  - Roles common to all structured decision making applications
  - Roles particular to adaptive management
- Planning a stakeholder workshop

### Key Players in the Adaptive Management Process

- Stakeholders and/or stakeholder representatives
- Facilitator(s)
  - May involve a team (recorder, apprentice, etc.)
- Technical advisors
  - Scientists, economist, statisticians, sociologists, etc...
- Modelers

These categories are not necessarily mutually exclusive. For example, a modeler might be considered a technical advisor and/or have facilitation skills. BUT, facilitators, technical advisors, and modelers can NEVER be stakeholders. They are neutral 3<sup>rd</sup> parties to the process.

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#### Stakeholders: Why bother?

1. *Stakeholders play important roles in structuring the decision process*
  - Design of each AM component
  - Integration of components
  - Periodic review and adjustment of decision structure

⇒ *Specific roles will be discussed later on*
2. *Natural resource decisions generally involve trust resources*
  - Public has a vested interest in decision outcomes
  - Multi-use resources can lead to competition and conflict among user groups
    - Diverse stakeholders lead to higher-quality management decisions.
    - Involvement builds support & process ownership
    - Groups are better at making decisions when they use structured processes.
3. *Stakeholder driven processes increase transparency*
  - Facilitates public support and decision ownership
  - Values and concerns of users are revealed
  - Transparency & buy-in assure longevity of effort
  - Makes process defensible
    - Representation
    - Fairness and equitability
4. *Avoid creating powerful adversaries*
  - “Spoilers” may attempt to derail a process because they feel they don’t have a voice. Making them feel heard can often transform spoilers into supporters.
5. *The law may require stakeholder involvement*

#### Who could be a stakeholder?

Any person or organization with a vested interest in the outcomes of a management decision

- Entities at any scale
- Individuals
- Organizations
- Constituencies (e.g., the public)
  
- Have various forms of interaction with resource
- Resource managers
- Researchers
- Administrators, policy makers
- User groups, interest groups

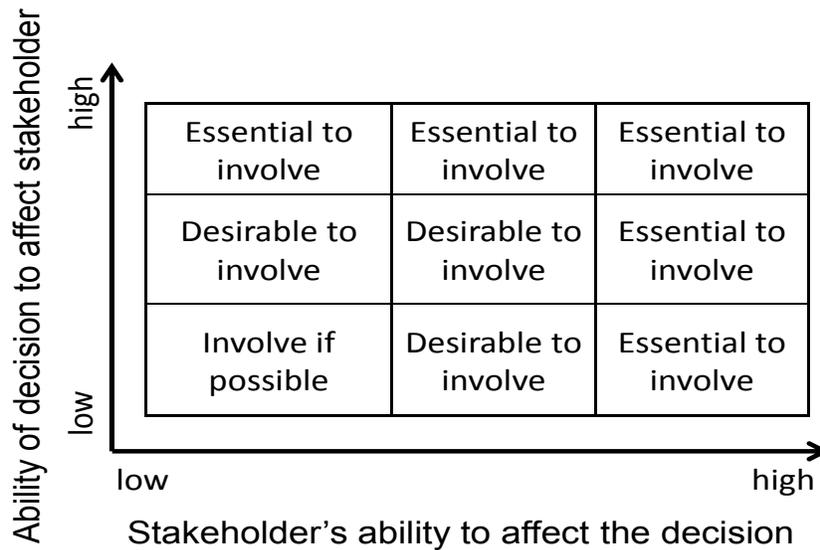
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- For natural resource management decisions:
  - Consumers/users (e.g. hunters, anglers, hikers, boaters...)
  - Public management agencies (e.g. FWS, EPA, state agencies)
  - Non-governmental organizations (e.g. Nature Conservancy)
  - Political entities (e.g. federal, state, local officials)
  - Economic interests (e.g. businesses, chamber of commerce)

Who should be a stakeholder?

1. Use stakeholder analysis to ID and assess the importance of potential stakeholders.
  - Who has the ability to affect the decision?
  - Who could be affected by the decision outcome?



2. All decision makers **MUST** be stakeholders, but all stakeholders are not necessarily decision makers
  - DMs have the authority and resources to implement the decision action
  - DMs have greater responsibility and accountability than other stakeholders
  - Failure to ID and include all decision makers in the process will lead to program failure
3. Who else?
  - Any whose exclusion would be problematic

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4. Those agreeing to follow Structured Decision Making (SDM) process:
  - Agree to play by the rules
    - Work cooperatively, transparently, deliberatively
  - Can provide required input & perspectives
    - Management objectives, decision alternatives, values associated with predicted outcomes
  
5. Those willing to commit continuing time, resources, & active engagement
  - All must realize AM is an ongoing process of learning-based management
    - Not "set it and forget it"
    - The work won't be done by others
  - Commitment of resources to monitoring & assessment

#### Organizing Stakeholders

- Develop a governance system that defines the way stakeholders interact
- Focus should be on process
  - How will decisions be made?
    - Autocratic, democratic, consultative, consensus
  - Who leads the group?
    - Facilitator
  - Who speaks for each stakeholder?
    - Representatives

#### Developing a Governance System

- Requires consensus – all parties should agree to rules of engagement before conflict arises
  - Establish a process for dispute resolution
- Define structure
  - governing board, chairperson, secretary
- ID roles and responsibilities
- Define guidelines for conducting meetings
  - How to conduct discussions
  - How to introduce new topics
  - Length limits for discussions
  - Other limits – e.g. # of times a stakeholder (rep) can speak at a meeting

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#### Roles of stakeholders vs. roles of technical advisors

- Stakeholder involvement key in early design and development stages of decision process
  - Framing the problem
  - Identifying and structuring objectives
  - Developing a set of decision alternatives to achieve desired outcomes
- Modelers & technical experts more important in later stages of process
  - Frame scientific uncertainty with alternative models of system dynamics
  - Consider consequences by describing how well alternatives meet objectives (developing and evaluating models)
  - Optimization (solving the decision problem)

#### Roles of Stakeholders

##### 1. Framing the problem

- All decision problems occur in a context of real-world complexities
  - Problem bounding:
  - Identifying the system to which the decision is to be applied
  - Abstraction: Finding the right compromise between acknowledging the real world and keeping the problem tractable

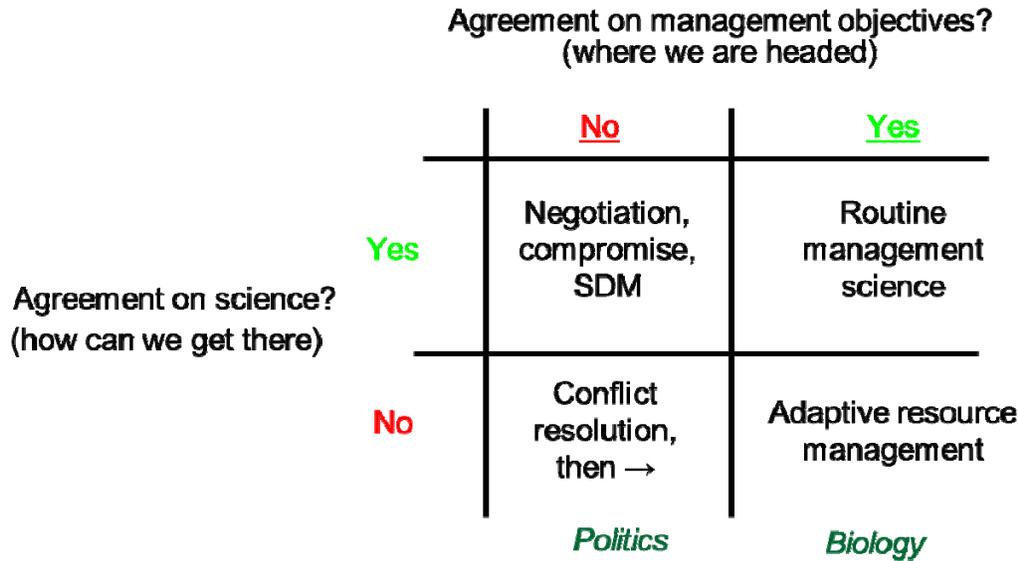
#### Examples of stakeholder considerations in problem bounding

- Understanding the legal and regulatory context of the decision problem.
  - May help determination of key decision makers and other stakeholders
- Identifying spatial context
  - Grain and extent
    - Apply decision to patches, management units, ownerships, or regions?
- Identifying temporal extent
  - Timing and frequency at which decisions will be made
  - Timing and frequency at which monitoring data will be collected

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Developing objectives can help to determine when adaptive management is appropriate



2. Developing the objective

- Stakeholders work cooperatively to provide a common, measurable objective of management
  - Translate their personal values into measurable quantities
  - May have to resolve among multiple competing objectives
  - The objective guides the selection of a decision
  - Objectives are *value* statements
  - Reflect social, political, ecological ideals
  - Incorporate both benefits and costs
  - Stakeholders assign a value to each possible outcome of each action

**Example of Values**

Action	Outcome	
	Positive	Negative
Do Nothing	100	-0-
\$\$\$	90	1

- Stakeholders must:
  - Assign values to decision outcomes
  - Distinguish *fundamental* from *means* objectives
    - "What do I want?" vs. "How might I get there?"
  - Assure objectives are measurable
  - Resolve among conflicting objectives
    - Mediation, negotiation, polling
    - Tools available for evaluating multiple goals

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#### 3. Developing decision alternatives

- The “decision menu”
  - Outcomes of actions must be *predictable* in terms of objective and managed resource
  - High uncertainty calls for *few but highly distinguished* alternatives
  - Avoid fine-grained alternatives, innumerable treatment combinations, “tweaked” decisions
- Creativity is key during early stages of process
- Refinement in later stages of process should eliminate:
  - Actions that are not within the decision makers jurisdiction
    - Look back to the problem statement. Think about the legal and regulatory context of the decision problem. The decision maker must have legal jurisdiction to implement the action if it is to be included in final list.
  - Actions that are irrelevant or unreasonable (e.g. actions that are too politically unpalatable to ever get implemented)

#### What is a Facilitator?

- MUST be a neutral party to the decision → Never a decision maker or stakeholder
- MUST be viewed by stakeholders as neutral party
- Helps stakeholders work effectively and collaboratively
- 1<sup>st</sup> among equals → Not the leader but acts as a guide

#### Facilitator Roles

- Promotes group participation, trust, mutual understanding, and shared responsibility
- Works closely with stakeholders to plan meetings
  - set time and location, notify participants, develop an agenda, prepare and distribute materials
- Running the meeting
  - Attempt to maintain a civil environment
  - Stick to agenda!

#### Characteristics of a Good Facilitator

- Able to work with all types of stakeholders
  - General public, technical experts, administrators...
- Can bridge the gap between people with different skills and life experience
- Active listener and able to summarize ideas so that they are understandable to everyone

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- Strong organizational skills
  - Maintains order/schedule
  - Keeps group on track
- Sensitive to mood of stakeholders
- Not afraid to take on aggressive and/or forceful personalities  
→ “turning lions into lambs”
- Skilled at getting shy or quiet stakeholders to communicate  
→ “turning lambs into lions”
- **BONUS:** Good understanding of natural resource management issues and approaches

A word about technical advisors

- Modelers & technical experts important in later stages of process
  - NOT stakeholders → not involved in objective/value development
- Should be viewed by stakeholders as neutral 3<sup>rd</sup> parties (and be willing to act as such)
- Sometimes the line b/w technical advisors and stakeholders is not clear → Must decide which “hat” to wear
- Choose wisely
  - Keep # relatively small
  - Assure relevant experience
  - Avoid duplication of expertise
  - Good communicators

Unique roles in an adaptive process

1. Framing scientific uncertainty

- For a given objective, choice of best decision differs according to one’s understanding of the system
- Understanding of biological mechanisms may be vigorously disputed among stakeholders
- Stakeholders frame uncertainty by contributing (or advocating for) competing models of the system
  - Any plausible model that predicts an outcome to a decision action

	Odds of a positive outcome	
	<b>Model 1:</b> Burning effective	<b>Model 2:</b> Burning <i>not</i> effective
Burn	3:1	1:1
No Burn	1:1	1:1

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- AM structure enforces transparent separation between disputes about science and disputes over values
  - Otherwise, “scientific uncertainty” often used as a diversionary tactic to hide a different set of values
    - e.g., using the “burning not effective” model to support an unrevealed desire to not burn

“Boat traffic in nursery areas must be decreased to protect whales.”

“We want to save the whales too, but the real problem is toxicity.”

*Dispute over the science? Or a hidden interest?*

#### 5. Periodic re-evaluation

- All components of decision framework may be periodically re-evaluated
  - To refine statement of objectives
  - To add/remove decision alternatives
  - To alter model set
- ⇒ “Double-loop learning”
- Stakeholders should apply “lessons learned” over course of decision making

#### Planning a stakeholder workshop

- Determine workshop purpose : *Informational* vs. *Technical*
- Informational – Used to introduce larger stakeholder group to decision problem and SDM process
  - Large group, may be open to general public
  - Foster buy-in and ensure transparency
- Technical – Used to conduct most of SDM process
  - Should be a small group (< 20 people)
  - Access limited to core stakeholder group
  - Maintain consistency in core group
- ID and recruit key stakeholders and other team players
  - Stakeholder representatives should be those who are most familiar with day-to-day management issues
  - Administrators good for helping to ID best person to send from agency
  - Technical advisors – biologists, engineers, statisticians, economists...
  - Recorder – assists facilitator with running the meeting.
    - A good way to get hands-on experience.

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- Meeting location and duration
  - Few multi-day workshops better than many 1-day workshops
  - Very long workshops counter-productive (avoid burn-out)
- Social event helps to facilitate a team environment
- Agenda should include:
  - Progress to date
  - New items for discussion
  - Explicit timelines
  - Background material
  - Reports/pubs
  - Limit to necessary items
- Webinars/websites useful in between workshops for assuring continuity and longevity of process

### **Summary**

- Stakeholder involvement necessary part of SDM process, BUT not all stakeholders are created equal
  - Stakeholder analysis used to ID those essential to process
- Governance is a process that puts structure behind the stakeholder group
  - Allows for definition of roles, timelines and boundaries
- Stakeholder involvement important in early design and development phases of process
  - Problem framing, ID and structuring of objectives, decision set development, assigning relative values to potential outcomes
- Facilitators are neutral parties that help guide the process
- Technical advisors are also neutral parties
  - Need to agree to wear their “expert” hat
  - Involvement important in development of model that links objectives and decisions to system understanding
- Planning a workshop involves determining workshop purpose (informational vs. technical), preparation of background materials (websites useful), “business” matters (location, duration...)