Communities and Monitoring in Adaptive Management

Maria Fernandez-Gimenez
Colorado State University

Overview

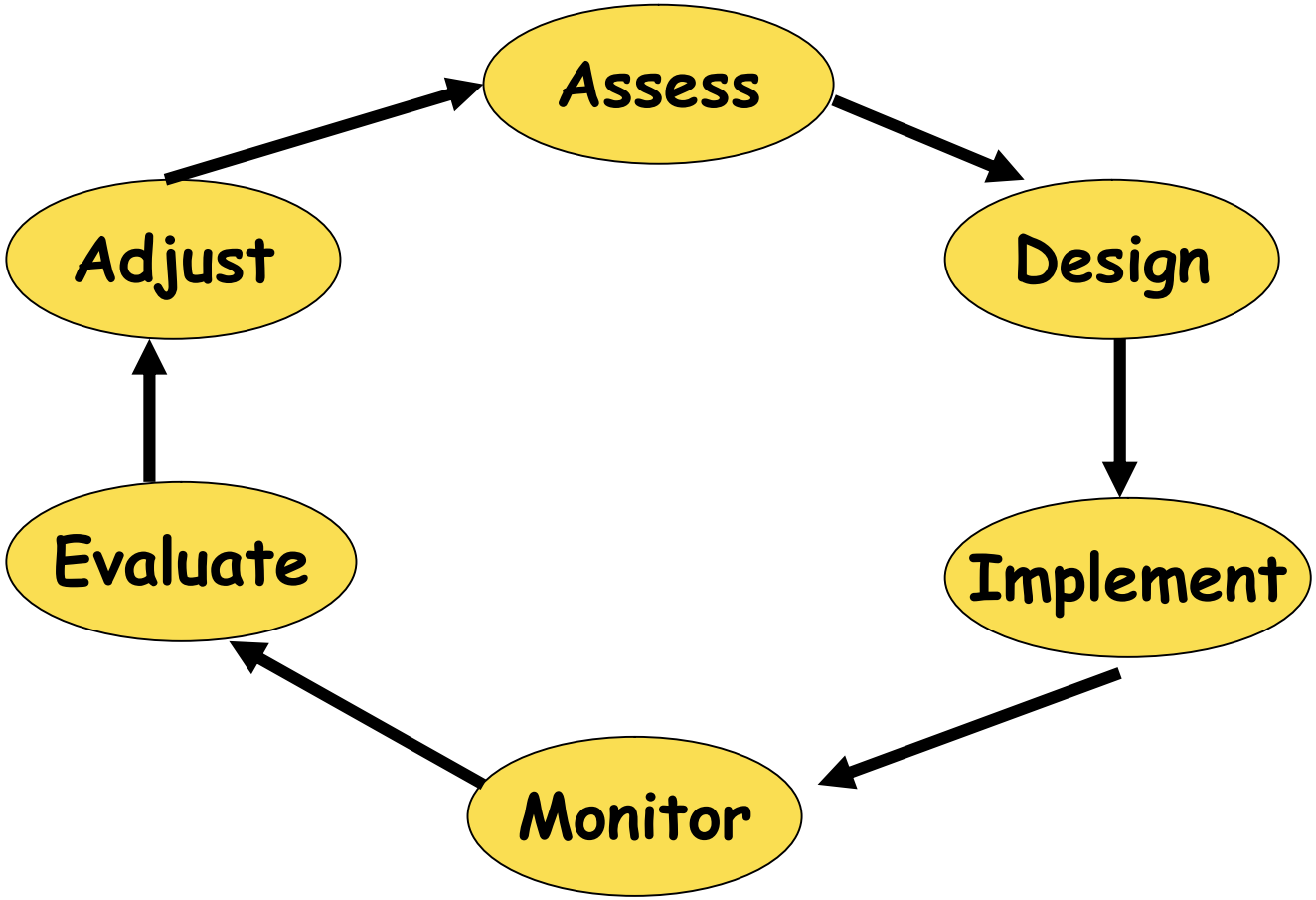
- What is adaptive management?
- Social learning
- Communities & monitoring in AM
- Cases & outcomes
- Lessons learned

What is adaptive management?

- Application of experimentation to the design and implementation of resource management.

- Management is designed BOTH to increase learning AND achieve management objectives.

Adaptive Management

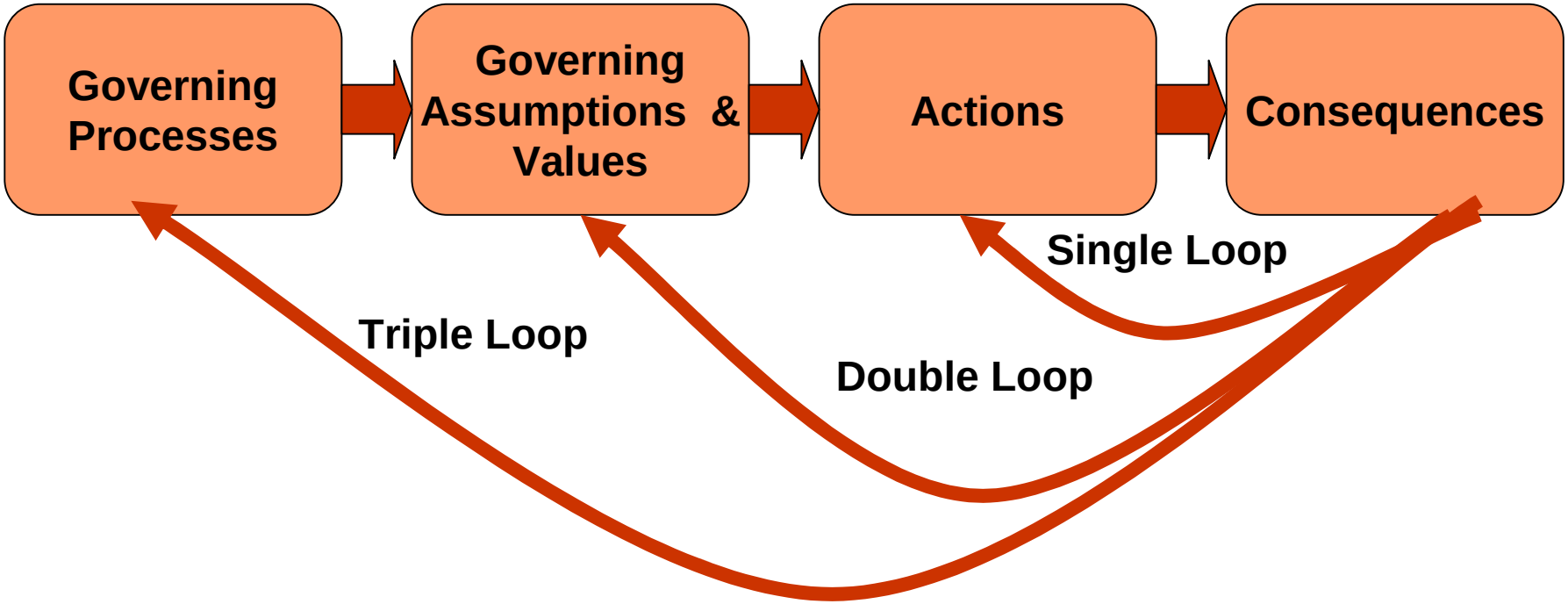


Social Learning

"Social learning is the collective action and reflection that occurs among different individuals and groups as they work to improve the management of human and environmental interrelations."

(Keen et al. 2005)

Multi-loop Learning



(Keen et al. (eds). 2005. Social Learning in Environmental Management; Towards a Sustainable Future. London: Earthscan)

Communities & Monitoring

- How and at what stage can communities participate in AM on public lands?
- Monitoring is AM's "achilles heel," can communities play a role?

3 Examples

- Wallowa Resources:
  - Collaborative Watershed Assessment
- Public Lands Partnership:
  - Burn Canyon Monitoring (Salvage Logging)
- Northwest Colorado Stewardship:
  - OHV Monitoring Workgroup

WR: Upper Joseph Creek Watershed Assessment

Participants:
70 agency staff and community members, including
- USFS
- ODW
- Nez Perce Tribe
- Ranchers
- Environmental advocacy groups

PLP: Burn Canyon Monitoring Working Group

Participants include:
- USFS
- Timber industry
- County commissioners
- Environmental advocacy groups
- Ranchers/permittees
- Citizens

NWCOS OHV Working Group

Participants included:
- BLM recreation staff
- Environmental advocacy group
- Local citizens
- OHV users
- Wild horse advocates
- Colorado State University (professor, graduate students, undergraduate volunteers)

Potential Community Roles

- Convene and manage collaborative assessment or monitoring process
- Participate in AM/monitoring design & objective setting
- Data Collection
- Data Analysis
- Interpretation of Results
- Communication of Results
- Application to Management Decisions

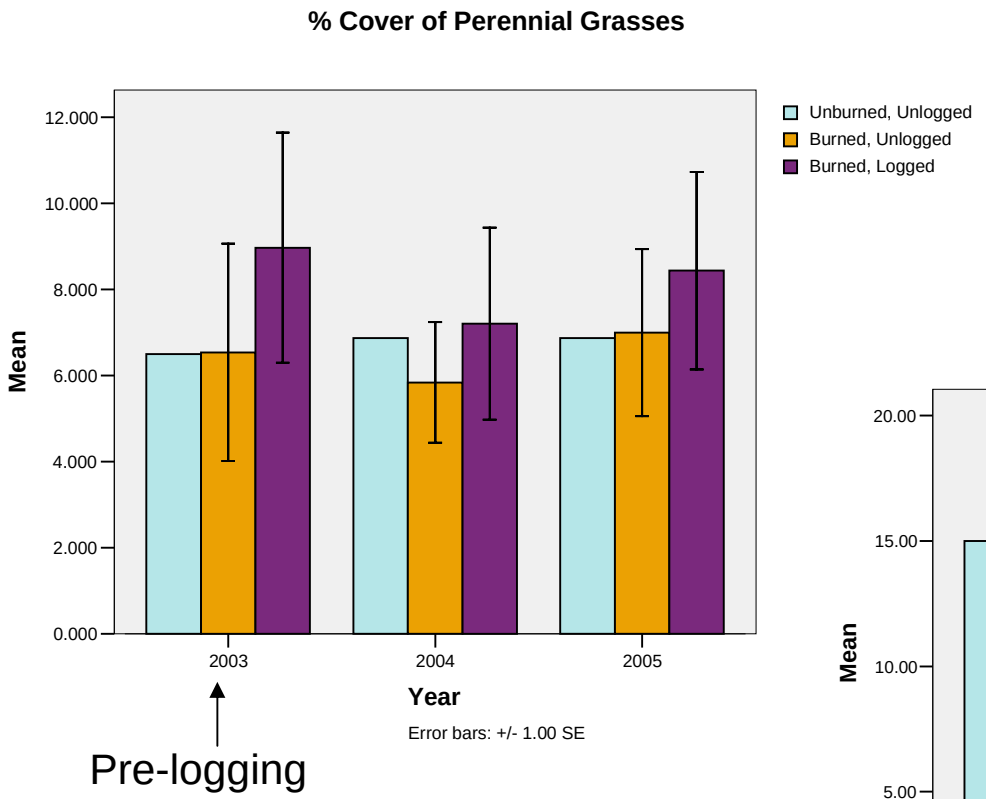
Potential Benefits

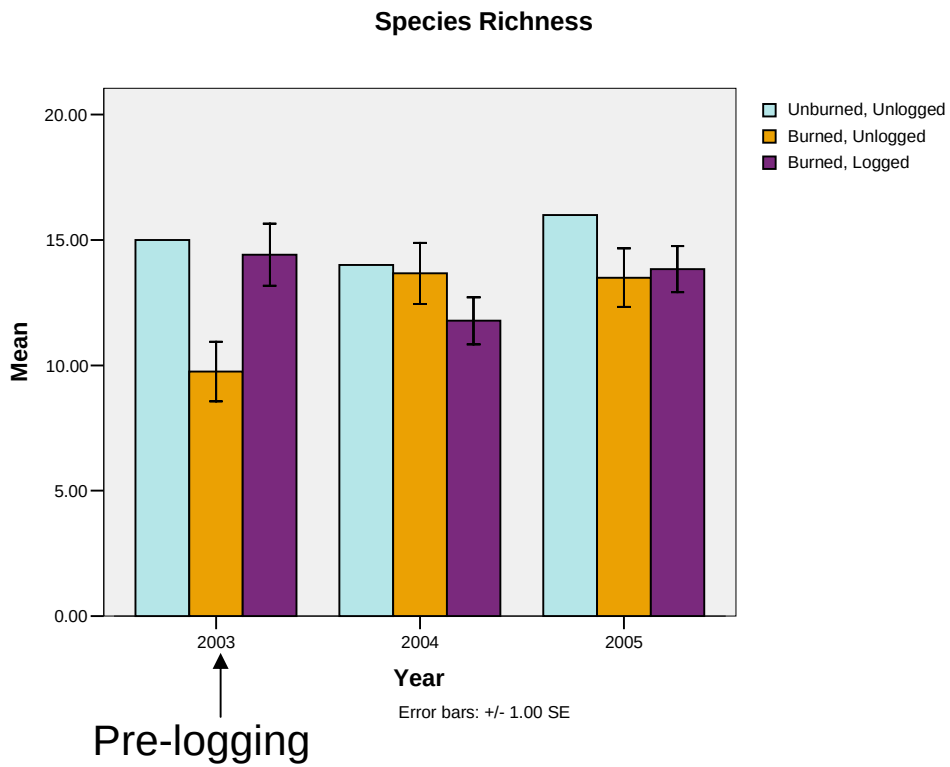
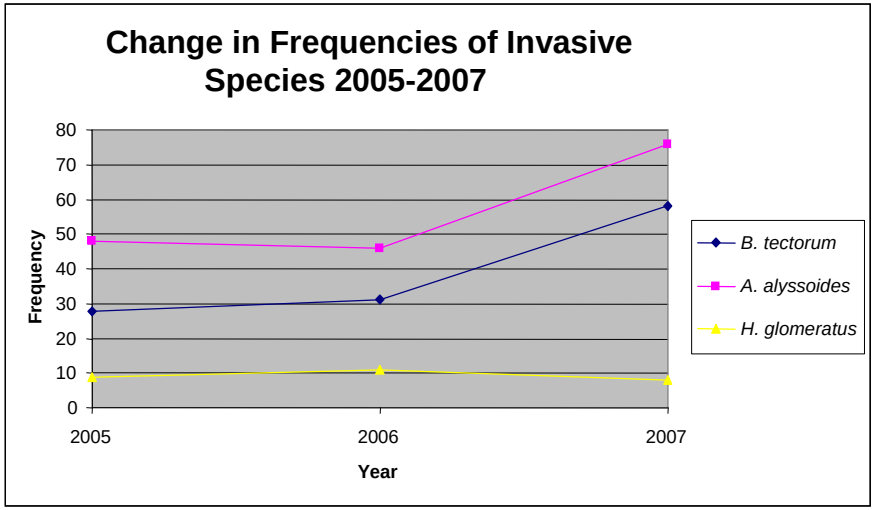
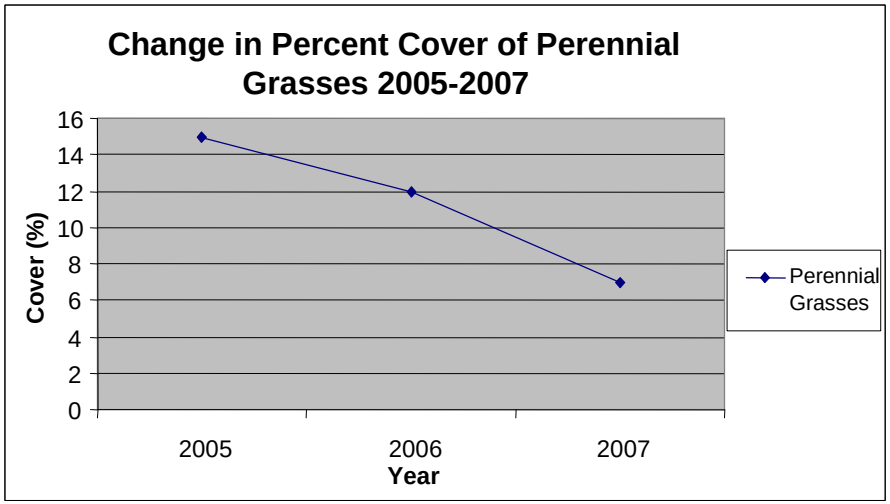
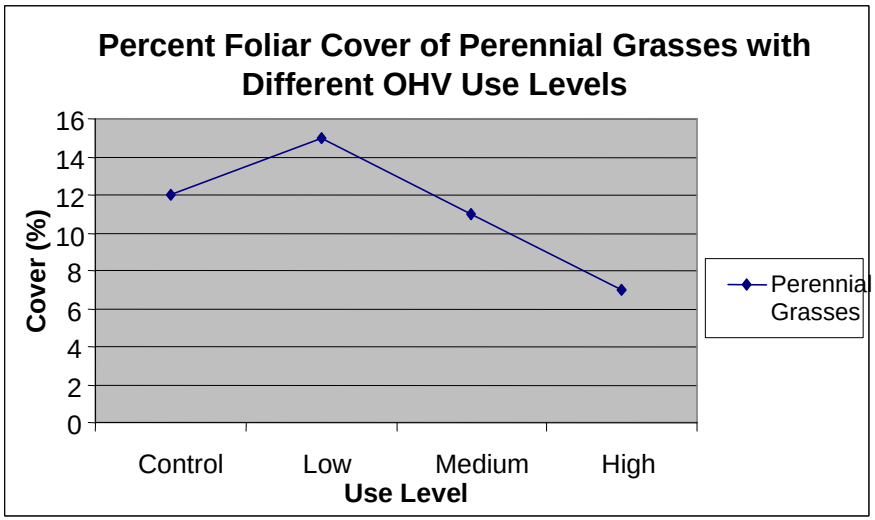
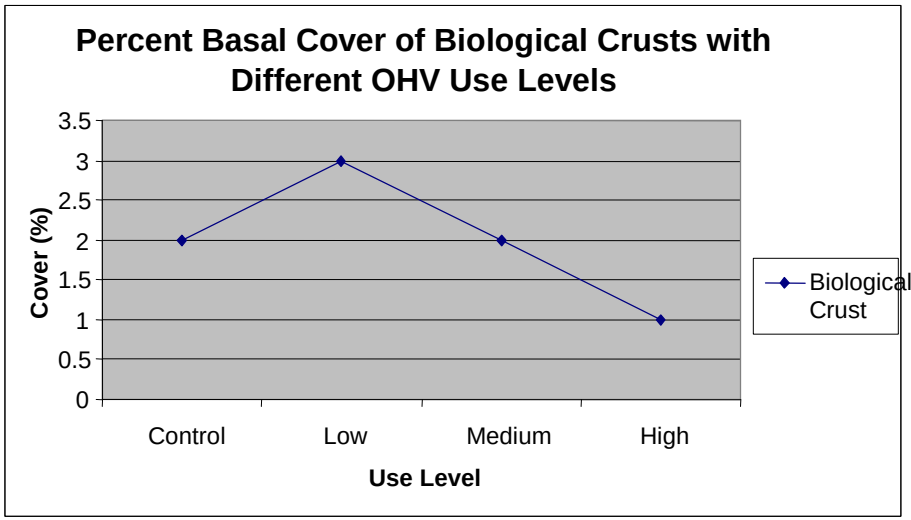
- Shared understanding of ecosystem & issues
- Identify locally relevant indicators
- Increased trust and credibility, improved relationships
- Greater accountability
- Increased likelihood that results are understood, communicated and used
- Higher order social learning

Limitations

- Difficult to sustain volunteer participation over the long term
- In multiparty monitoring, may be difficult to keep all parties engaged
- Lack of technical capacity for monitoring design, and data collection and analysis

Burn Canyon Results





OHV Monitoring Results