



**MIT - USGS**

**SCIENCE IMPACT COLLABORATIVE (MUSIC)**

Testing Collaborative Approaches to Environmental Decisionmaking  
and Training Science Impact Coordinators

## Collaborative Adaptive Management Preparing for the Impacts of Climate Change

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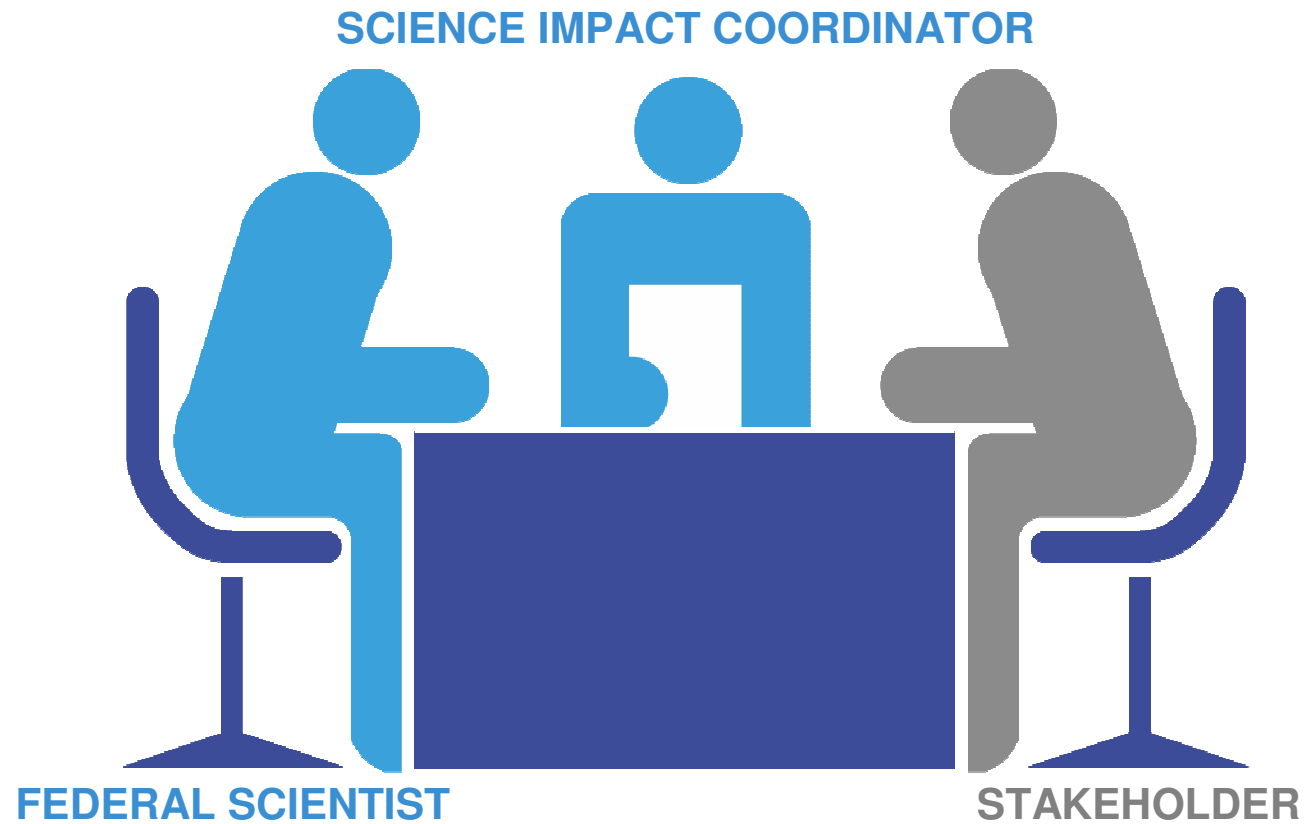
CAMNet

January 13, 2008



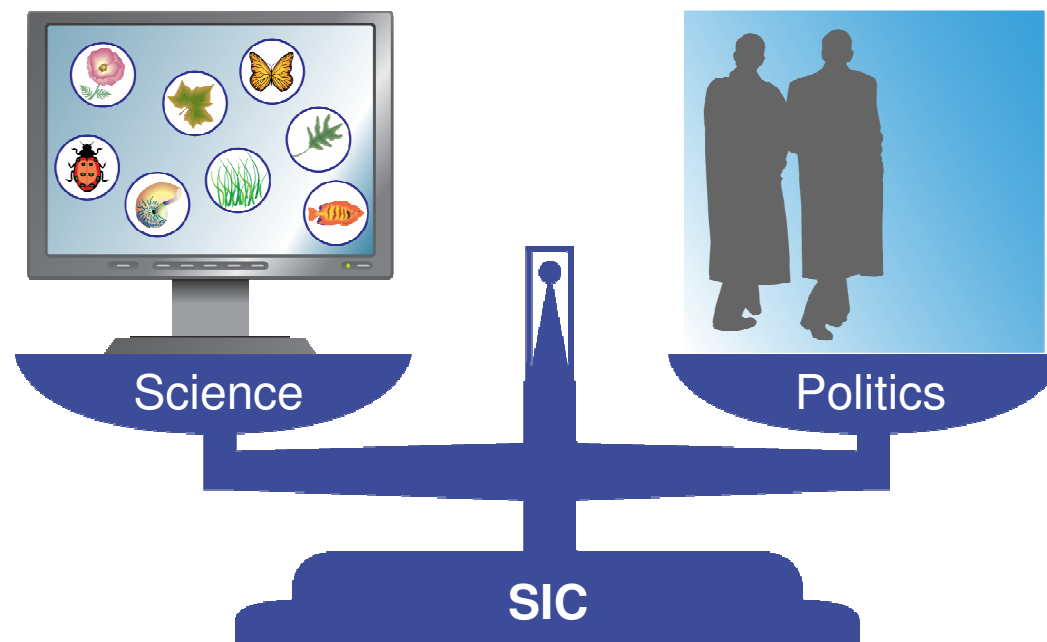
# Science Impact Coordinators: A New Kind of Environmental Professional

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# Collaboration Is the Key

Sustainable resource management requires close attention to the workings of complex ecosystems **and** a need to find common ground among contending stakeholders (i.e., balancing science and politics)





# Science Is Not A Panacea

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**Decisions** are based on **Values**

**Science** can provide a **Context**



# Problem Definition

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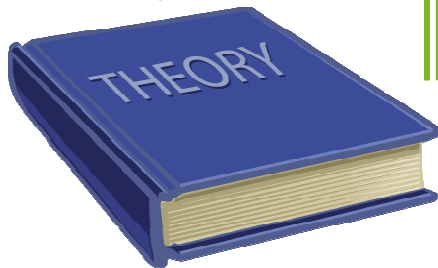
Defining the Problem(s)

Asking the Question(s)

# Collaboration Is the Key

The keys to effective collaboration in ecosystem management are Joint Fact Finding (JFF), adaptive management, and expert facilitation of multi-party, multi-issue negotiation.

Theory of Action is useful in practice

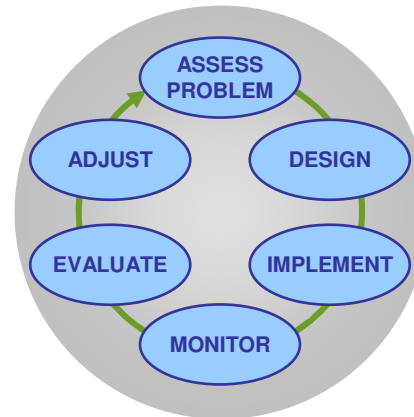
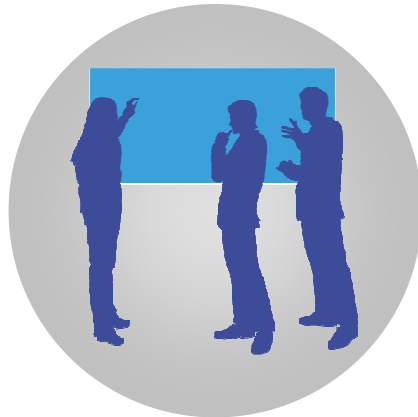


Joint fact-finding

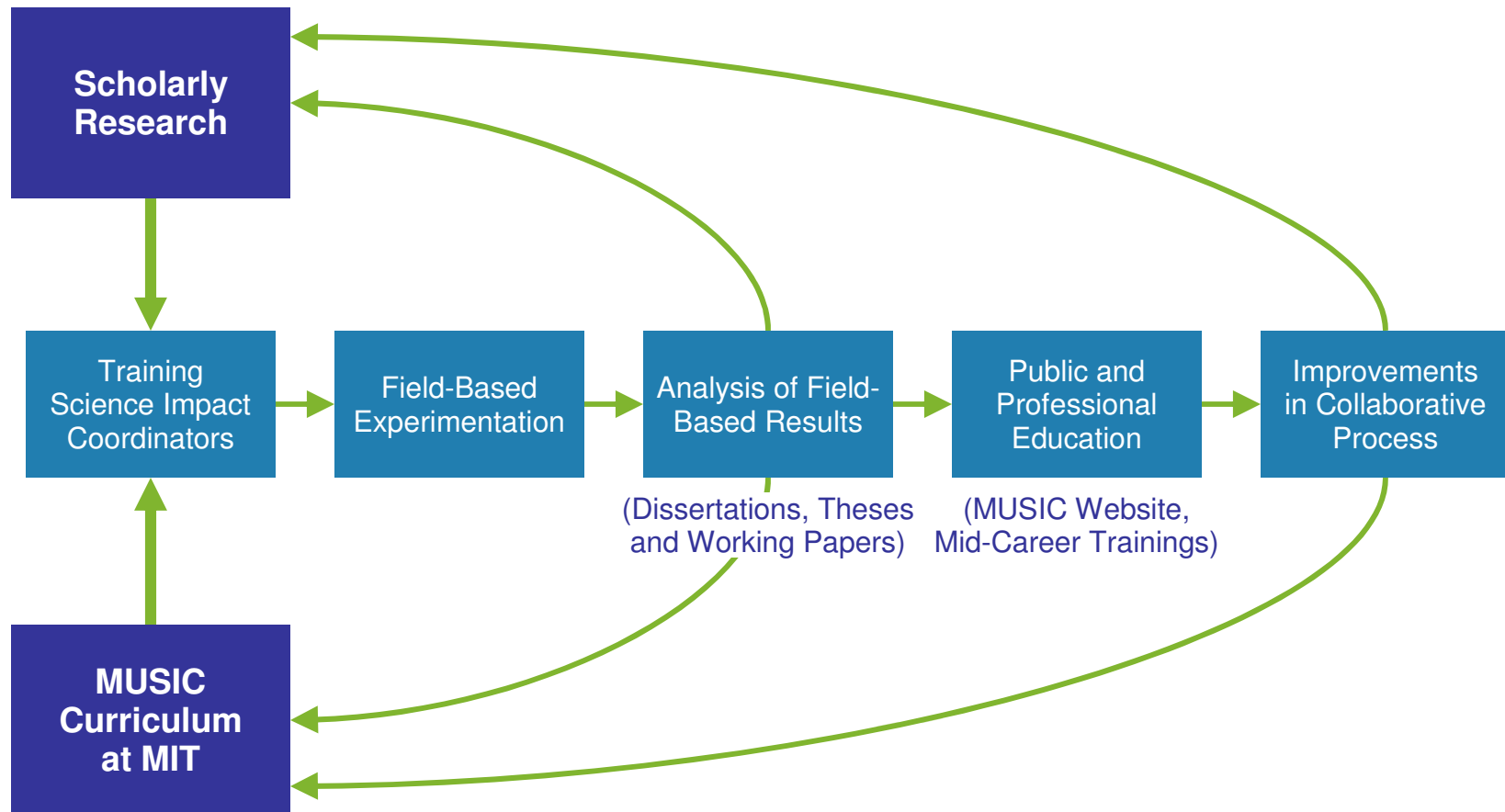


Expert facilitation

Adaptive management



# The M.U.S.I.C. Program

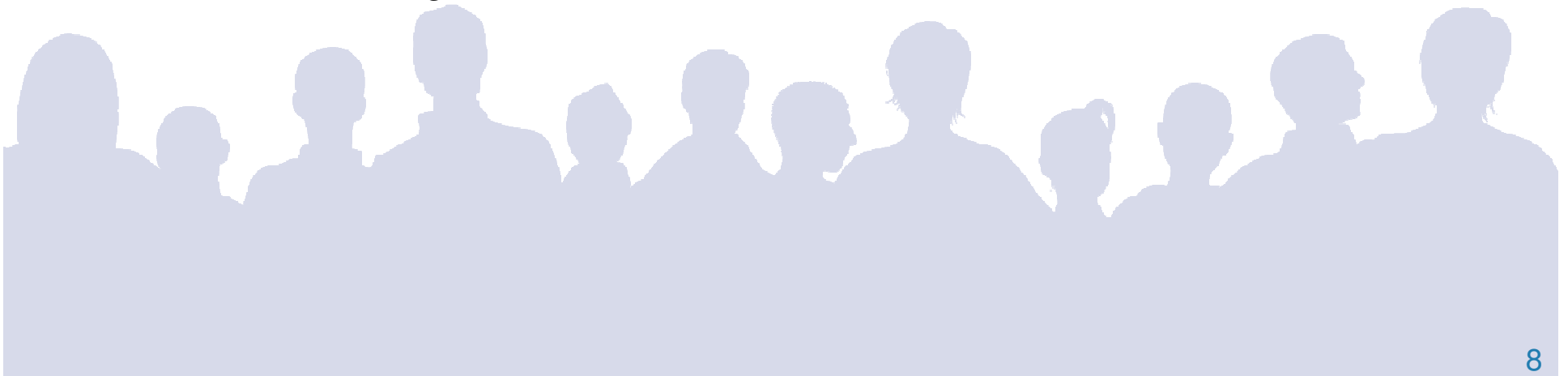




# Planning for the Impacts of Climate Change

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- Great uncertainty in the projected effects of climate change, especially at regional and local scales requires development of flexible and adaptive strategies to plan for its impacts
  - *Collaborative adaptive management*
- Current institutional arrangements and structures are not adequate to deal for the impacts of climate change
  - *Adaptive governance as a framework for new institutional arrangements*





# Global Climate Change Collaborative (G3)

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- Consortium of global institutions under auspices of MUSIC
- Undertake action-research projects
  - Planned interventions in the world-at-large, coupled with careful reflection, that yield new insights with general application
  - Provides grounded knowledge about what works and what doesn't
  - Allows experimentation that might not otherwise occur
  - Captures the knowledge and experience of committed professionals and local and indigenous people
- Initial projects/Coastal Ecosystems
  - Muscongus Bay, Maine
  - Sunderbans, India
  - Australia/South Pacific
- Initial projects/Water
  - Lower Mississippi Valley
  - Connecticut River Valley
  - Middle East
  - Netherlands



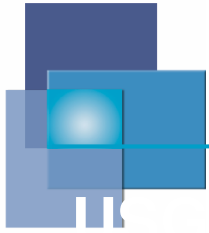
# Wisdom

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## Different Ways of Knowing

- ✓ Local Knowledge
- ✓ Indigenous Knowledge
- ✓ Traditional Knowledge
- ✓ Oral History
- ✓ Scientific Knowledge
- ✓ Technical Knowledge

Wisdom?



# A Way of Viewing the World

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Science, social science, engineering and humanistic perspectives are viewed as reinforcing each other not as contradictory, while cross-cultural perspectives are woven into everything we do.

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