Adaptive Management:

A Tool for Conservation Practitioners

The Roots of Adaptive Management Conservation takes place in complex systems. Over the past few decades, different disciplines dealing with complex systems have developed convergent approaches to using applied science to take action in the face of uncertainty. As shown in the following diagram, examples of these approaches include "social learning," "reflective practice," "learning organizations," and "adaptive management." FOS uses the term "adaptive management" to refer to the approach that we use. Click on a compartment in the diagram below to see the full citation.

What is Adaptive Management? Adaptive management is a relatively new concept - one that has only recently begun to gain popularity in the mainstream conservation community. But what is it? Some people may ask, "Isn't adaptive management simply good management? Doesn't it merely involve trying something and then if it doesn't work, using your common sense to adapt and try something else?" We believe that adaptive management is good management, but that not all good management is adaptive management. We also believe that adaptive management requires common sense, but that it is not a license to just try whatever you want. Instead, adaptive management requires an explicitly experimental - or "scientific" - approach to managing conservation projects as outlined in the following definition:

Adaptive management incorporates research into conservation action. Specifically, it is the integration of design, management, and monitoring to systematically test assumptions in order to adapt and learn.

This definition can be expanded:

- Testing assumptions is about systematically trying different actions to achieve a desired outcome. It is not, however, a random trial-and-error process. Instead, it involves first thinking about the situation at your project site, developing a specific set of assumptions about what is occurring and what actions you might be able to use to affect these events. You then implement these actions and monitor the actual results to see how they compare to the ones predicted by your assumptions. The key here is to develop an understanding of not only which actions work and which do not, but also why.
- Adaptation is about taking action to improve your project based on the results of your monitoring. If your project actions did not achieve the expected results, it is because either your assumptions were wrong, your actions were poorly executed, the conditions at the project site have changed, your monitoring was faulty - or some combination of these problems. Adaptation involves changing your assumptions and your interventions to respond to the new information obtained through monitoring efforts.
- Learning is about systematically documenting the process that your team has gone through and the results you have achieved. This documentation will help your team avoid making the same mistakes in the future. Furthermore, it will enable other

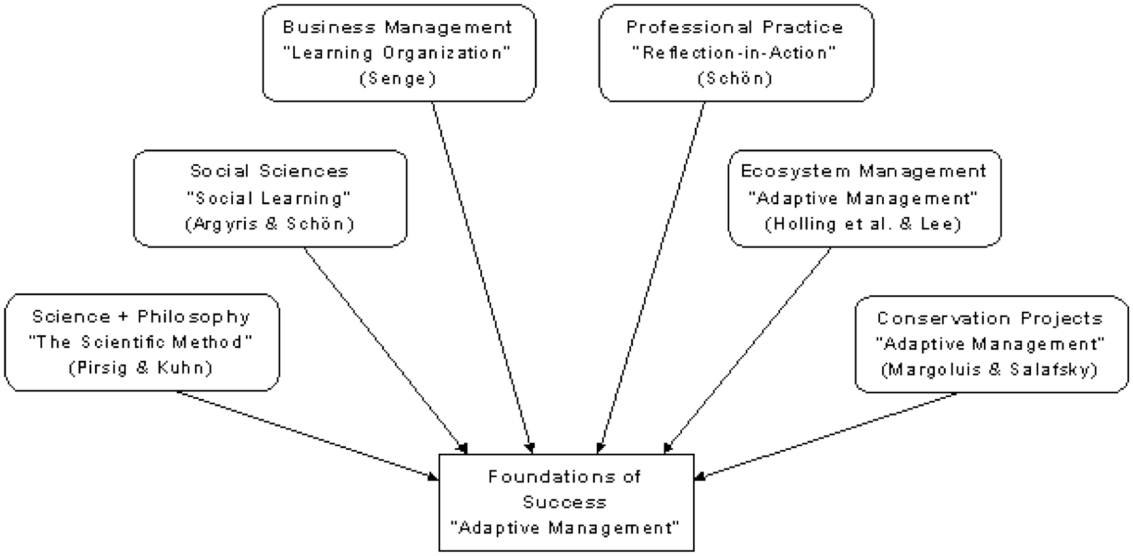
people in the broader conservation community to benefit from your experiences. Other practitioners are eager to learn from your successes and failures so that they can design and manage better projects and avoid some of the hazards and perils you may have encountered. By sharing the information that you have learned from your project, you will help conservation efforts around the world.

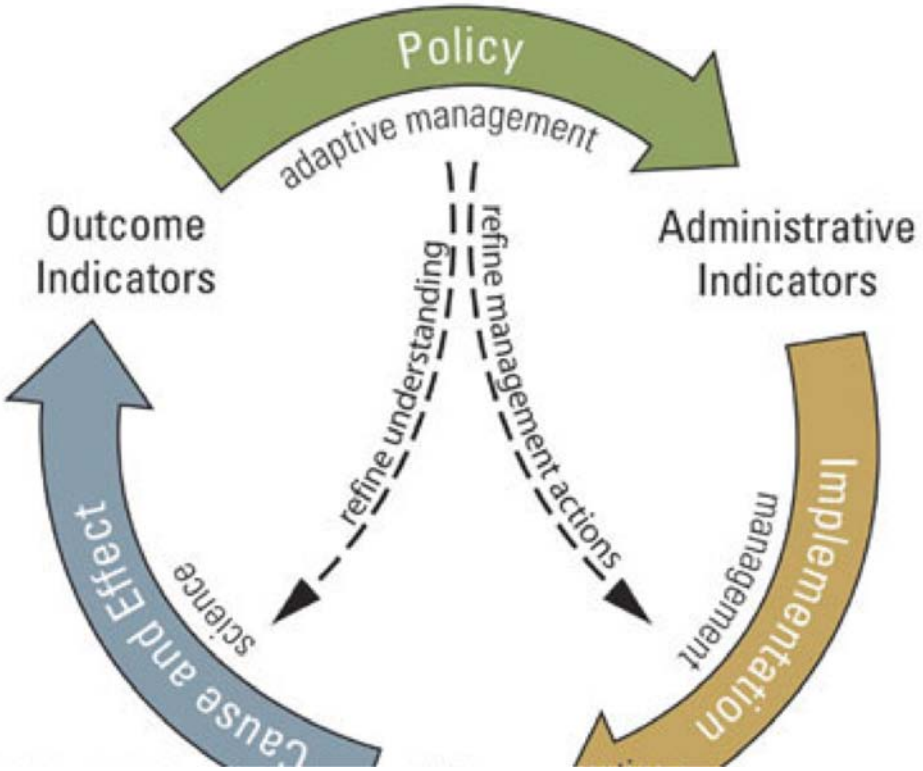
Our definition of adaptive management includes a framework of specific **conditions** that warrant an adaptive management approach, **steps** for the process of adaptive management, and **principles** for the practice of adaptive management.

Conditions That Warrant an Adaptive Management Approach
Condition 1. Conservation Projects Take Place In Complex Systems
Condition 2: The World is a Constantly and Unpredictably Changing Place
Condition 3: Our "Competitors" are Changing and Adapting
Condition 4: Immediate Action is Required
Condition 5: There is No Such Thing as Complete Information
Condition 6: We Can Learn and Improve

Steps in the Process of Adaptive Management
START: Establish a Clear and Common Purpose
STEP A: Design an Explicit Model of Your System
STEP B: Develop a Management Plan that Maximize Results and Learning
STEP C: Develop a Monitoring Plan to Test Your Assumptions
STEP D: Implement Your Management and Monitoring Plans
STEP E: Analyze Data and Communicate Results
ITERATE: Use Results to Adapt and Learn

Principles for the Practice of Adaptive Management
Principle 1: Do Adaptive Management Yourself
Principle 2: Promote Institutional Curiosity and Innovation
Principle 3: Value Failures
Principle 4: Expect Surprise and Capitalize on Crisis
Principle 5: Encourage Personal Growth Principle
6: Create Learning Organizations and Partnerships
Principle 7: Contribute to Global Learning
Principle 8: Practice the Art of Adaptive Management





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