Ecosystem Management INITIATIVE

Fact Sheet

WHAT ARE THE GOALS AND STRATEGIES OF ECOSYSTEM MANAGEMENT PROJECTS?

Ecosystem management (EM) is an approach to managing natural resources that considers multiple species in whole ecosystems, involves the collaboration of multiple participants, and balances social needs with ecosystem protection. Since 1995 the Ecosystem Management Initiative has been tracking EM approaches across the country to characterize and learn from this experience. Based on phone and written surveys of 100 cases in 1995, 1999 and 2003, here is a picture of *what these efforts aim to achieve* and *what strategies they use to get there*.

Cases at a glance

Age of a project ranges from two to 32 years old in 2003, with an average age in 2003 of 10-15 years.

Area ranges from 60 to 410,000,000 acres, with the majority of projects less than 500,000 acres, on both private and public lands, frequently with federally listed threatened or endangered species on site.

Ecosystem types vary widely, but most projects focus on wetland, river, forest and/or grassland ecosystems, while fewer are based on desert or coastal systems.

Resource use commonly in project areas includes development, agriculture, timber and/or recreation.

For more information and additional fact sheets see:
http://www.snre.umich.edu/ecomgt/research/em_research.htm

What are the goals of EM projects?

EM projects are primarily concerned with restoring or maintaining biodiversity, often including threatened and endangered species, and with improving collaboration among multiple parties.

Overall, ecological and process goals tend to be rated as more important than social and economic goals.

Specific goals that are less important for most projects include maintaining soil or air quality and the inclusion of under-represented groups in decision-making.

Many projects aim to restore, increase or maintain...

Ecological
- Biodiversity, ecosystem, habitats
- Populations of threatened or endangered species
- Water quality

Social
- Public environmental awareness
- Recreation opportunities
- Economic health
- Community character

Process
- Collaboration or communication among participants
- Coordination of activities
- Multi-party agreement

What strategies are projects using to achieve goals?

Projects use a combination of resource management, organizational process and socioeconomic strategies. Overall, process strategies, such as coordinating, planning and collaborating, are used more than economic- or policy-related strategies.

Major strategies of many projects

- Use existing state and federal programs
- Develop a management or action plan
- Minimize destructive resource use
- Increase or ensure stakeholder involvement
- Cultivate support of key individuals
- Conduct education and outreach
- Inventory and monitor
- Recreate/ allow for natural processes (fire, stream flow, etc.)

Infrequently used strategies include setting aside land as reserves, reintroducing rare/protected species, creating a new organizational structure, and economic strategies such as creating jobs in sustainable industries or attracting outside investors.

How do project goals and strategies change over time?

As the box to the right shows, the importance of some goals and strategies depends on the **phase** of a project, probably because factors such as funds and organizational support are prerequisite to implementing certain strategies.

Goals and strategies change over time

Planning *and* early *implementation*	Later *implementation*
➢ More use of local policy change strategies	➢ More use of state or national policy change strategies
➢ More use of fundraising strategies	➢ More use of acquiring land/water easements or rights and setting aside land as reserves
➢ More use of early process strategies, such as establish regular meetings and effective leadership	➢ Greater importance of maintaining or restoring biodiversity

Projects that are **younger** (have started more recently) are more likely to have goals related to economic health and community character and resilience. These younger projects are also more likely to engage in economic strategies such as creating jobs in sustainable industries or attracting outside investors. It may be that this reflects a recent shift in EM approaches or that these difficult strategies are attempted early on but not continued.

Sources

Schueller, Sheila K. and Steve L. Yaffee. Trends in Collaborative Ecosystem Management from 1999 to 2003. *In prep*.

Brush, Mark, Allen Hance, Kathleen Judd, Elizabeth Rettenmaier. 2000. Recent Trends in Ecosystem Management. A Master's Project completed for the School of Natural Resources & Environment, University of Michigan, Ann Arbor, MI.

Yaffee, Steven L. Ali F. Phillips, Irene C. Frentz, Paul Hardy, Sussanne Maleki, and Barbara E. Thorpe. 1996. Ecosystem Management in the United States: An Assessment of Current Experience. Washington, DC: Island Press.