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Neil E. West

Department of Rangeland Resources and Ecology Center, Utah State University, Logan

Allen G. Rasmussen

Department of Rangeland Resources and Ecology Center, Utah State University, Logan

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Break-out Session 1: The Great Basin

Neil E. West and Allen G. Rasmussen

Department of Rangeland Resources and Ecology Center
Utah State University
Logan, Utah

Abstract

The most unique characteristics of the Great Basin are the ecological fragility of the resources, scarcity of water, predominance of federal land, high degree of urbanization, independence of rural people. Factors most likely to impede EM are conflicting goals and missions of agencies, conflicting social values among stakeholders, slow recovery rates of biophysical systems, and difficulty of predicting responses to natural disturbances and management actions. Characteristics most likely to facilitate EM are new political climates promoting consensus, extensive federal lands, social diversity, and improving management technology. A critical need for successful EM is communication and promoting public understanding of the process.

PARTICIPANTS AND PROCESS

The focus of this group's efforts was the Great Basin, the region bounded on the east by the Wasatch Mountains and Wasatch Plateau, and extending south along the Hurricane Fault. Its western boundary is the Sierra Nevada and Cascade Mountain ranges. Its northern limit is the Columbia River, and its southern is the Mohave Desert. The number of participants was approximately 80.

Participants were asked to focus on three central questions posed to each break-out session without spending time on exact definitions of region, ecosystem, or ecosystem management. The participants were divided into subgroups to prepare lists of (1) the unique biophysical and socio-economic characteristics of the Great Basin, (2) factors likely to constrain the practice of ecosystem management in the region, and (3) factors that offer opportunities to enhance implementation of ecosystem management in the region.

The three groups were then reconvened, and each was asked, in round-robin fashion, to state its most important items associated with each question. Once the three master lists had been prepared, all members were asked to vote on their personal first and second preferences under each of the three questions. The session chairs then ranked four to five features of the region collectively judged to be the most important for each question.

UNIQUE CHARACTERISTICS OF THE REGION

The group identified 21 characteristics that render the Great Basin unique in implementing ecosystem management (Table 1). About 60% of the attributes were biophysical features and about 40% were socio-economic-political in nature. The five judged most important by the group, however, were predominantly the social characteristics. These were:

1. ecologically fragile upland resources
2. scarce water, and very limited and sensitive riparian areas
3. predominance of federal lands
4. high degree of urbanization
5. highly independent people residing in rural portion

FACTORS LIKELY TO CONSTRAIN ECOSYSTEM MANAGEMENT

The group identified 25 potential constraints on ecosystem management in the region (Table 2). These divided about equally between biophysical and socio-economic-political issues, as did the short list of most serious constraints. The latter were:

1. numerous action and regulatory agencies at all levels with conflicting goals and missions
2. conflicting social values among stakeholders
3. slow recovery rates for the biophysical systems
4. non-linear, hard-to-predict responses to natural disturbances and management actions

FACTORS LIKELY TO FACILITATE ECOSYSTEM MANAGEMENT

The group developed a list of nine opportunities (Table 3) likely to facilitate ecosystem management in the Great Basin. Some of these were the positive side of some of the identified constraints. The leading four opportunities were:

1. new political climates allowing search for consensus
2. large blocks of federal land
3. diverse people, from original settlers on the land, to urban technocrats, to recent immigrants
4. technology for restoration and increasing biodiversity is available.

TABLE 1. CHARACTERISTICS OF THE GREAT BASIN REGION RELEVANT TO ECOSYSTEM MANAGEMENT.

Votes	Characteristics
23	fragile resources (slow recovery rates, limited site potential)
19	scarce water
14	federal land and multiple-use dominate
7	highly urbanized, unevenly distributed human population, rapid population growth
7	rich history, cultural dominance by independent people
7	large, relatively homogenous ecosystems, mostly still intact
5	no outlet of water to the sea, its quality declining with distance from headwaters
4	private lands locked in a "sea" of federal ownership
3	riparian areas few and sensitive (unlinked oases altered by irrigation)
3	agriculture mostly ranching
3	center of feral horse population
3	limited transportation and related infrastructure in center
2	mountains in a "sea" of temperate (cold) desert, limited forests
1	salt-affected soils dominate
1	exotic plant species on increase, vegetation evolved without grazing
1	great climatic variation with snow dominating in the precipitation pattern
1	great mineral wealth connected to boom-and-bust economics
1	inland seas (closed basins, terminal lakes) with many migratory birds
1	good air quality
1	many sensitive species

TABLE 2. CONSTRAINTS ON IMPLEMENTING ECOSYSTEM MANAGEMENT IN THE GREAT BASIN.

Votes	Constraints
18	variation in philosophical view of ecosystem management
14	numerous agencies at all levels pursuing conflicting goals and missions
13	changing social-political-economic structure (urban vs. rural groups) with conflicting values
5	slow ecological recovery rates, limited potential of land for productivity
5	economic viability versus sustainability
5	threatened and endangered species
5	lack of effective communication and coordination
4	non-linear, difficult-to-predict biological responses to natural and management influences
4	subsidized water and power
4	water scarcity, frequent drought
4	archeological and historical values
4	frequency of fires that alter ecology
4	existing water law and property rights
4	low rewards for field workers achieving results on the ground
4	political and ecological boundaries do not match
3	popular conception of area as a wasteland, placement of hazardous, toxic wastes
2	independent life styles of rural people
1	no universal standards for ecological condition
1	non-native species invasions
1	low incentives for private landholders
1	lack of political clout in national politics
1	vast size and low economic base limits development of transportation and communication infrastructure
1	antiquated mining laws
1	boom or bust economies connected to mining and military