

The Purpose and Process of the Sustainable Rangelands Roundtable

E. T. BARTLETT, HELEN IVY ROWE AND KRISTIE MACZKO

Authors are a co-chair of the Sustainable Rangeland Roundtable and professor emeritus; a research associate in the Department of Rangeland Ecosystem Science, Colorado State University, Fort Collins, Colo. 80523; and an applications analyst under contract to the USDA Forest Service, Rocky Mountain Research Station.

Abstract

The United States currently lacks consistent, standardized indicators for reporting the status of rangelands. This country needs a national information gathering process, based upon a comprehensive set of broadly accepted "Criteria and Indicators" (C&I) for future rangeland assessment and planning. Availability of such information at a national scale would foster informed, sound decision-making relative to the sustainability of the economic, social and ecological benefits derived from rangelands. The Sustainable Rangelands Roundtable (SRR), a multidisciplinary group, comprised of scientists (ecologists, soil scientists, economists, sociologists, etc.), conservation groups, industry, federal, state and local government representatives, and policy and legal experts, has been convened to address this need. However, the SRR is not, itself, a decision making body, but rather provides an opportunity for groups and individuals representing diverse interests and backgrounds to share information and perspectives on defining and describing C&I of rangeland sustainability. The inclusive nature of the process should lead to wider acceptance and adoption of the C&I by agencies, non-profit organizations and academia alike.

Introduction

Toward the end of the twentieth century, public concern about natural resource degradation increased, and environmental monitoring became more common. Interest in anthropogenic impacts and attendant ecosystem changes continues to grow, and governments now espouse sustainable development as an appropriate analysis paradigm (Shields, in press); trends in sustainability of numerous natural resources must be regularly assessed. For this reason, a group of stakeholders, including representatives from conservation groups, the livestock industry, local, state and federal government, and university partners, is involved in an ongoing series of meetings designed to identify a common set of factors for measurement of rangeland sustainability. This open, inclusive partnership operates as the Sustainable Rangelands Roundtable (SRR), and is working to distinguish a set of criteria and indicators (C&I), embodying social, economic, and ecological factors, to form a framework for national assessments of rangelands and rangeland use. Ideally, the C & I will describe individual elements that need to be assessed in order to determine trends in resource conditions, management, economic benefits, and social values derived from rangelands.

Sustainable Development

The term "sustainable development" was introduced in the 1980's as a modification of the term economic development. Sustainable development was popularized by the World Commission on Environment and Development, chaired by Gro Harlem Brundtland, then the Prime Minister of Norway (WCED 1987). The description contained in their report, "Our Common Future," has become known as the Brundtland definition and states that sustainable development is, "Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (WCED 1987, p. 43).

The United Nations Conference on Environment and Development (the Earth Summit held in Rio de Janeiro in 1992), culminated in adoption of a plan for achieving sustainable development. Additionally, Earth Summit leaders endorsed the Rio Declaration and principles of sustainable forest management, which led to the creation of the Montreal Process (MP) Working Group in 1994.

The MP Working Group developed criteria and indicators (C&I) designed to achieve sustainable forest management. Their work resulted in creation of a set of seven criteria and sixty-seven indicators for the "conservation and sustainable management of temperate and boreal forests," which was

endorsed by the United States and nine other countries in the Santiago Declaration in 1995.

Four years later, this endorsement led the USDA Forest Service to initiate the Roundtable on Sustainable Forests (RSF). One of several significant issues identified at their initial meeting was the need for development of a C&I effort to focus specifically upon the nation's rangelands. This idea merited additional attention, and, within a year, a meeting was convened in Denver to investigate the utility of a roundtable for sustainable rangeland management. Due to the efforts of dedicated Forest Service personnel, the first meeting of the Sustainable Rangelands Roundtable was held in Denver in April 2001.

Sustainable Rangelands Roundtable

The SRR is not a decision making body, but rather provides an opportunity for groups and individuals representing diverse interests and backgrounds to share information and perspectives on defining and describing C&I of rangeland sustainability. SRR promotes shared leadership and responsibility for the participants. At the first two meetings held during 2001, SRR established trust and common understanding by adopting vision and mission statements, and guiding principles.

To ensure that opinions of all participants were equally represented, SRR has committed to two vision statements. The first regards SRR's ideal future condition for rangelands: "We envision a future in which rangelands in the U.S. provide a desired mix of economic, ecological and social benefits to current and future generations." The second vision statement describes how SRR views itself and the process through which it is working, stating, "we envision a future where we have widely accepted criteria and indicators for monitoring and assessing the economic, social, and ecological sustainability of rangelands."

SRR mission statement expands upon similar themes. Ultimately, "the Roundtable will identify indicators of sustainability based on social, economic, and ecological factors, to provide a framework for national assessments of rangelands and rangeland use."

The group further focused their efforts by collectively creating a set of guiding principles to assist with development of SRR procedure and process. A guiding principle is a fundamental truth, law or assumption (Romero 2001). More specifically, the guiding principles to which the SRR agreed are enduring rules or standards that guide roundtable practices and behaviors. The eight guiding principles developed by the SRR are as follows:

1. Collectively, indicators should guide monitoring efforts to measure rangeland sustainability in the U.S. at the national scale. Where possible, indicators should guide monitoring efforts to measure rangeland sustainability at multiple scales.
2. Ensure that the indicators employ the appropriate temporal and spatial scales for assessing the criteria.
3. Collectively, criteria and indicators will address social, ecological, and economic aspects of sustainability.
4. Use a criteria and indicator framework as a common language and operational framework for defining and assessing sustainability. Begin by considering the criteria and indicator framework of the SFR.
5. Review and consider, as appropriate, other indicator initiatives.
6. There are numerous policy questions related to rangelands. We will focus on the vision-mission agreed to by the SRR.
7. The Roundtable process will feature outreach to stakeholders, open dialogue, and respect for differing opinions.
8. The SRR will be supportive of and compatible with improved on-the-ground management of rangelands.

Benefits of Criteria and Indicators

The C&I that the SRR are developing will provide a common framework for monitoring and assessing progress toward sustainable rangeland management. Measurement of a valid, consistent, standardized set of indicators facilitates reporting on the full range of factors that affect the sustainability of rangelands. In addition to providing national baseline information, indicators also offer a method to accurately monitor changes in social, ecological, and economic aspects of rangeland sustainability. Wade and Reuwsaat present broader perspectives on the numerous benefits associated with having a comprehensive set of C&I for sustainable rangelands (see pp. 15-16), and Heintz (pp. 7-13) supplies an in-depth examination of the importance of sustainability indicators.

SRR Process

SRR Meetings

The SRR focuses its efforts through a series of working meetings, formal and informal electronic interaction between meetings, action-oriented working groups, and subject-oriented criterion groups. Physical meetings are two days in length, with the vision, mission, and guiding principles directing group thought and behavior. Mr. Lou Romero of Albuquerque, New Mexico, who is very familiar with natural resource management and

issues after a 32-year career with the USDA Forest Service, provides formalized, professional facilitation.

Agendas for each meeting are drafted at the previous session, revised, and provided to participants prior to the meeting. Meetings begin with two hours of informational presentations to introduce new participants to concepts of sustainable development, potential benefits of C&I for sustainable rangelands, and the logistics and principles of SRR. All participants receive updates from prior meetings and reports from various workgroups before undertaking tasks outlined for the current session.

Participants spend a majority of meeting time in small groups, moving forward with development, review, and revision of C&I. While the first few meetings emphasized drafting vision and mission statements and guiding principles, the groups subsequently identified major issues of rangeland sustainability. Categorical clustering of issues served as the foundation for the creation of five broad-based topic groups to further focus indicator development efforts. Consistency with C&I established by the RSF for sustainable forests emerged during the third SRR meeting, when the Roundtable combined issue clusters with RSF C&I sets. Efforts at the next two meetings concentrated on continued development of indicator sets specific to sustainable rangelands within five criteria groups. Six of the papers included in this symposium specifically address this indicator development process, utilizing the criterion group structure.

Collaborative Delphi

Time constraints associated with indicator development deadlines necessitate continued progress between meetings. To facilitate distance participation, SRR conveners created a modified electronic Delphi process to maintain communication and participant involvement. This process, informally dubbed Collaborative Delphi, offers opportunity via e-mail conversations for additional discussion and resolution of issues that emerge during SRR meetings. Collaborative Delphi is an effective tool for bounding differing positions, more clearly defining areas of agreement and conflicting opinion, and soliciting informed review of documents.

Additionally, because Collaborative Delphi emphasizes written, anonymous communications, individuals may further reflect upon subjects and voice concerns and opinions that they may be reluctant to enumerate at open meetings. For example, this procedure assisted with attaining agreement on variants of vision and mission statements, and guiding principles early in the SRR effort. It also increased SRR efficiency by saving

time that then could be devoted to more pressing tasks at working meetings. For a more expansive discussion of Collaborative Delphi, see the article by Rowe (pp. 29-36).

Working Groups

As progress on development of C&I for sustainable rangelands continues, special projects and exigent concerns arise unexpectedly. To address these items efficiently, the SRR forms workgroups comprised of a small number of participants to perform specific tasks on behalf of the SRR, or to offer recommendations about how SRR ought to resolve emerging issues. Four of these special working groups have been formed, dealing with outreach efforts, questions of spatial and temporal scale, indicator development coordination across initiatives, and operational definitions.

Communication and enhanced public awareness of SRR efforts improves acceptance levels of SRR C&I upon project completion. For this reason, the Outreach Workgroup, chaired by Lori Hiding of the Ecological Society of America, emphasizes involvement of additional organizations, development of effective outreach materials, coordination with outreach efforts of other roundtables, and maintenance of SRR momentum (see paper by Hiding, pp. 17-19).

The Scale Working Group, chaired by Paul Geissler of the USGS Biological Resources Science Staff, focuses on identifying an interpretation of appropriate spatial and temporal scales for the SRR. Complex relationships among national, regional, and local scale indicators will be examined to determine whether spatial aggregation is suitable and/or useful. Situations where interpretation of indicators might change as scale changes, and instances when the metric (measure) varies among levels of scale will also be explored. A progress report is scheduled for the March 2002 SRR meeting.

The SRR Coordination Working Group formed to identify other ongoing indicator efforts dealing with issues relevant to sustainability and/or to rangelands. Tom Roberts, of the Bureau of Land Management in Denver, chairs this group. Coordination will avoid duplication of effort and indicator redundancy, while enhancing information sharing and cooperation. Currently, four roundtables are working on indicators of sustainability for various natural resources. These efforts include: the Roundtable on Sustainable Forests, the Sustainable Minerals and Energy Roundtable (SMR), the SRR, and the Sustainable Water Resources Roundtable (SWRR), which is still under organization. Additionally, numerous organizations have developed or are developing indicators specifically related to sustainable rangelands. These groups include the Heinz Center (see Patten pp. 63-65),

Environmental Protection Agency (EPA), and The Nature Conservancy (TNC), among others.

Most recently, the SRR formed the Definitions Working Group, chaired by John Tanaka of Oregon State University, to address the question - "Is it rangeland or is it forest?" Inclusive, consistent ecosystem classification will help to ensure that all vegetation communities are included in C&I efforts of various roundtables. Additionally, all relevant indicators for each ecosystem must be considered and, where possible, adopted, regardless of definitional classifications.

SRR Organization and Support

SRR activities require operational, intellectual, and participatory input. As a result, the SRR organization has several tiers of involvement, comprised of SRR core staff, SRR Steering Committee, aforementioned working groups, criterion groups, and participants (see below). The core staff, which consists of John Mitchell, Tom Bartlett, Kristie Maczko, and Helen Rowe, handle daily operations such as: finances and travel arrangements, meeting organization, coordination of participant efforts, and communications. The seven-person SRR Steering Committee meets between and immediately prior to SRR meetings to determine the group's general direction and identify milestones. This committee also finalizes the agenda proposed by the staff and facilitator; reviews and plans outreach efforts; and insures that participants continue to represent a wide range of interests and organizations. Steering Committee members include the co-chairs, Alison Hill and Larry Bryant of USDA Forest Service, Tim Reuwsaat of DOI Bureau of Land Management, Paul Geissler of USDI-USGS, and Evert Byington of USDA Agricultural Research Service. Additionally, the core staff and facilitator serve as ex-officio members.

Clearly, the participants are the most important components of the SRR structure. Organizations currently represented include: the USDA-FS, NRCS, USGS, ERS and ARS; the DOI-BLM, BIA, FWS, NPS, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, sixteen accredited universities, and eighteen local, state and national organizations. The latter range from professional groups such as SRM, Conservation Biology, and ESA, to producer groups such as the National Cattlemen's Beef Association, and conservation groups including the National Wildlife Federation and the Idaho Conservation League. Most participants attend numerous meetings, as schedules permit, with many attending all five SRR meetings, to date. Other participants represent groups that are active near SRR meeting locations. These individuals may attend only a single meeting, but add fresh perspectives to SRR's discussions and

efforts; some ask to become regular participants. It is important to note that while most participants have been invited to attend meetings, the SRR is open to all those interested in sustainable rangeland management.

SRR attempts to subsidize travel expenses of all non-federal participants, but local participants typically do not require travel reimbursement. Additionally, SRR pays the salary of one staff member and time for one of the co-chairs. Funds to support SRR activities have come from several agencies, including USDA-Forest Service, USDI-Bureau of Land Management and the U.S. Geological Survey. Colorado State University also has contributed faculty and support staff, as has the Rocky Mountain Research Station of the Forest Service.

However, as previously stated, the most significant support has come from SRR participants. Depending on meeting location and requisite travel time, many individuals devote two to four days of effort to each meeting attended. Participants also contribute time and effort between meetings through the aforementioned Collaborative Delphi process, as well as through tasks assigned by working groups and criterion groups.

Time Line and Products

At its inception, the SRR effort was designed to adhere to a schedule that would allow it to make substantive contributions to a federal land status report in 2003. With that deadline in mind, the SRR held four meetings in 2001. One meeting has occurred during this calendar year, and others are scheduled in March, May, July and October of 2002. Three meetings also are tentatively scheduled in 2003.

In addition to regularly scheduled regional meetings, external review and professional feedback will also contribute to broad acceptance and adoption of SRR C&I. The SRM symposium is the SRR's first reporting effort, intended to inform rangeland professionals of ongoing SRR efforts and future plans. Similarly, a workshop proposal has been submitted for the ESA annual meeting, scheduled for August 2002. It is anticipated that the SRR will have a semi-complete set of draft indicators at that time, thus presentations are designed to solicit critical input from a wide sampling of stakeholders interested in rangelands sustainability. Ideally, the ESA Workshop will provide an opportunity for small group discussion of ecological related C&I, as well as a thorough evaluation of SRR indicator designation efforts.

Such focused critiques will contribute to the formal SRR report, due to be finalized early in 2003. Collaboration with other groups working on indicator sets - the Roundtable on Sustainable Forests, the

Sustainable Minerals and Energy Roundtable, the Heinz Group, The Nature Conservancy, the EPA, and the President's Council on Sustainable Development - also will enhance progress toward a robust, useable, commonly accepted and shared set of indicators for measuring sustainability. More practically, the SRR report will assist agencies in their respective resource management efforts through recommendation of a framework for a first approximation of sustainable development as applicable to U.S. rangelands. The candidate framework is intended to complement the 2003 national report on sustainable forest management.

Criteria and Indicators

As described earlier in the context of SRR meeting processes, identification of rangeland sustainability issues and compatibility review of RSF's work, culminated in creation of five criteria groups within the SRR. Organization of indicator identification and definition efforts under these five criteria categories minimizes existence of areas of gaps and overlaps within indicator sets. These Criterion Groups are:

1. Maintenance of Productive Capacity on Rangeland Ecosystems
2. Maintenance of Ecological Health and Diversity of Rangelands
3. Conservation and maintenance of Soil and Water Resources of Rangelands
4. Maintenance and Enhancement of Multiple Economic and Social Benefits to Current and Future Generations

5. Legal, Institutional, and Economic Framework for Rangeland Conservation and Sustainable Management

The SRR overview paper and presentation, and the following Criterion Group summaries included in the symposium proceedings represent status reports on all aspects of the SRR. Additionally, SRR participants presenting papers are intimately involved with ongoing indicator development and would greatly appreciate your feedback. SRR staff and Steering Committee members also are available to receive comments pertaining to participation and process. Please feel free to contact us in person, by telephone, or electronically.

Lastly, symposium coordinators have prepared a one-page questionnaire that you are asked to complete and return at the conclusion of the presentations. As you offer input, please remember that the SRR effort is a work in progress.

For more information see the SRR web page (<http://www.cnr.colostate.edu/RES/srr/index.html>), or contact Tom Bartlett at 970-491-7256, et@cnr.colostate.edu or Helen Rowe at 970-491-3908, ivy@cnr.colostate.edu.

Literature Cited

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