National Public Attitudes toward Federal Rangeland Management

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Federal rangeland management and policy historically have been directed by a small circle of forage users, agency specialists, and Western members of Congress, with little scrutiny by the larger public (Dana and Fairfax 1980). However, concern about the environment has increased during the past quarter-century (Dunlap 1991), and this is reflected in growing public attention toward rangeland management and policy. Utilitarian, anthropocentric approaches to federal land management are less popular as the public and natural resource professionals increasingly embrace biocentric or holistic paradigms (Brown and Harris 1992). Environmental activists increasingly target public lands grazing for criticism (e.g., Rifkin 1992, Ferguson and Ferguson 1983). The long-simmering feud over grazing fees now makes headlines in Philadelphia as well as Denver.

This increase in public scrutiny and criticism has not gone unnoticed in the range profession. Appeals for a counter-response appear regularly in the pages of *Rangelands* (Bonham 1991, Tueller and Burkhardt 1993). Yet it's not entirely clear what the profession should be responding to. We do not know, for example, how closely the opinions of the general public match those of interest groups who tend to be the most vocal participants in natural resource debates. The lack of such knowledge greatly limits managers' ability to respond to Congressional initiatives or interest groups' criticism. Also, because attitudes about environmental management are related to knowledge about environmental conditions (Pierce et al. 1989), managers need to learn what the public knows about rangelands.

Unfortunately, little research has examined public knowledge or beliefs about rangelands. For example, since 1980 only one article examining attitudes of the general public has appeared in the *Journal of Range Management*, and it covered the narrow issue of coyote control (Arthur 1981). No studies have been published concerning general attitudes toward management of publicly owned rangelands in the United States. Without such research, federal range managers and policy-makers cannot gain a clear understanding of what Americans think about rangeland conditions and range management issues. To address this deficiency, we conducted a national public survey on federal rangelands in Spring 1993.

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Methods

Survey data were gathered by contacting 2,000 randomly selected households by telephone, using survey design and implementation criteria recommended by Dillman (1978). Interviews were completed with 1,360 adults. The 68% response rate was consistent with our previous mail and telephone surveys on environmental issues. Many of those who declined to respond said they had no opinion about rangelands or their management. Thus, results may emphasize the views of those who are most concerned about rangeland policy.

Survey questions encompassed: (1) attitudes toward management of federal rangelands; (2) knowledge about the environmental condition of federal rangelands; (3) confidence in organizations and institutions involved in range management; (4) relative influence that different rangeland constituencies should have on policy development and implementation; and (5) attributes of respondents that could influence beliefs, including their overall attitudes toward the relationship between society and the natural environment as well as demographic characteristics. Many of the questions were adapted from a recent study of attitudes about federal forest management in Oregon and nationwide (Shindler et al. 1993).

The primary attitude/belief measures were a series of questions asking people for their level of agreement with statements about rangelands and range management. Respondents were asked their views about "federal lands such as those managed by the Bureau of Land Management and the U.S. Forest Service." To further clarify the attitude object, a definition of rangelands was given. Choosing a definition was problematic, as there is still no universally accepted description of rangeland (Holechek et al. 1989). To ensure a valid telephone survey, the definition could be no more complex than a single phrase. The phrase we chose was: "places that have arid climates, where grassland or desert environments are *more common* than heavily forested ones."

Attitudes and Beliefs

Responses to questions measuring overall attitudes toward range management on federal lands are shown in Table 1. Generally speaking, Americans favor greater

Table 1. Attitudes toward federal range management policies.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	(%)				
Livestock grazing should be banned on federal rangelands	11	10	45	18	16
More rangeland wilderness areas should be established	10	5	14	24	47
Livestock grazing should be permitted in rangeland wilderness areas	31	19	20	19	11
Greater protection should be given to fish such as salmon	6	8	10	28	48
More should be done to protect rare plant communities	9	4	12	24	51
Greater efforts should be given to protect wildlife	3	4	7	23	63
Endangered species laws should be set aside to preserve ranching jobs	45	20	17	10	10
Federal range policy should emphasize livestock grazing	19	24	32	11	14
Ranchers should pay more than they do now to graze livestock on federal rangelands	7	7	19	29	38
The economic vitality of local communities should receive highest priority when making rangeland decisions	16	25	22	15	23

protection for nonmarket rangeland resources and a shift away from commodity-oriented management. Respondents did not support the current policy allowing livestock grazing within wilderness areas, and they wanted to see more rangeland wilderness areas set aside. They favored giving greater protection to fisheries, wildlife, and rare plant communities, and disagreed that range management should emphasize livestock grazing. A particularly interesting finding concerned attitudes toward a total ban on livestock grazing on federal rangelands such as that espoused by the "Cattle Free in '93" movement. Respondents were slightly more likely to *support* a grazing ban than to oppose one, but nearly half of the sample was neutral toward that statement—much more than for any other question.

Several questions examined the extent to which range policies should protect ranching communities, with somewhat mixed results. Respondents opposed by more than a 3:1 margin a statement that endangered species laws should be set aside to preserve ranching jobs. A very large majority agreed with a statement that ranchers should pay more than they do now to graze livestock on federal rangelands. Yet when asked if management decisions should give highest priority to protecting the economic vitality of local communities, about half of those who had an opinion agreed with the statement. Nor was the public altogether insensitive to economic upheavals that may result from a grazing fee hike: When asked to choose among five statements about the grazing fee system (Table 2), they agreed by nearly a 3:1 margin that any increase in grazing fees should be phased in gradually so that ranchers have time to adjust to the new economic conditions.

A final attitude question asked respondents to make an overall choice between anthropocentric, holistic, and biocentric management paradigms. Sixty-five percent supported a multiple-benefits mode of management, "emphasizing a long-term sustainable balance between human and ecological concerns." Of the remaining third of respondents, twice as many people preferred a preservation mode ("emphasizing minimal alteration and interference in rangelands by humans") to an agricultural mode ("emphasizing the efficient production of forage to provide meat products for society").

Table 2. Preferences for a grazing fee policy.

	Percent
Livestock growers should be able to graze their animals on federal lands free of charge	10%
Livestock growers should continue to pay about what they currently pay to graze on federal land	14%
Grazing fees charged to livestock growers should be raised to fair market value, but the change should be gradual to let ranchers adjust to new economic conditions	40%
Grazing fees should be immediately raised to their fair market value	14%
Livestock growers should not be allowed to graze their animals on federal lands no matter how high the fee	22%

To measure public beliefs about the condition of federal rangelands, we asked respondents whether they agreed or disagreed with six statements about environmental quality (Table 3). These results showed a clear pattern of belief that America's public rangelands are in trouble, and that the situation is getting worse. The statements that were most likely to gain agreement referred to watershed issues: loss of riparian vegetation and declining water quality. The problem least likely to be perceived by respondents was that most federal rangelands are overgrazed by livestock. Yet even then, no more than a third disagreed with the statement. Regardless of whether or not respondents believed overgrazing is a widespread problem, they did not believe that overgrazing is less prevalent now than it was 50 years ago.

Confidence and Influence

Questions about public confidence in agencies and interest groups found greater trust given to environmental groups than to commodity groups or the bureaucracy (Figure 1). Of the three resource agencies having the greatest responsibility for range management, confidence was lowest in the Bureau of Land Management. While people were equally likely to have "a great deal" of confi-

Table 3. Beliefs about environmental conditions of federal rangelands.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	(%)				
Most federal range is overgrazed by cattle and/or sheep	12	14	14	30	30
Soil erosion is only a minor problem on federal rangelands	30	33	13	13	10
Populations of most wildlife species on federal rangelands have remained constant or are increasing	44	30	14	8	4
The quality of water from federal rangelands has decreased markedly in the past 50 years	3	4	7	23	63
The extent of overgrazing on federal rangelands has decreased markedly in the past 50 years	34	31	18	9	8
Loss of streamside vegetation is a serious range problem	5	3	10	32	51

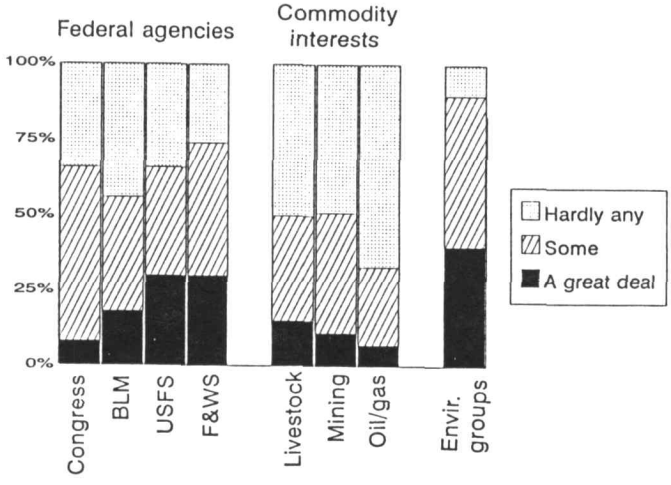

Fig. 1. *Confidence in rangeland agencies and constituency groups.*

dence in the Forest Service or U.S. Fish and Wildlife Service, they were more likely to have "hardly any" confidence in the Forest Service. Public confidence in the U.S. Congress was much lower, on a par with the oil, mining, and livestock industries. Of the latter three groups, confidence was lowest in the oil industry.

One finding that has particular relevance for range policy is the very low level of confidence expressed in the livestock industry. Half of the sample said they have "hardly any" confidence in the livestock industry, and only 15% had "a great deal" of confidence in stockgrowers. In comparison, 40% of the public had a great deal of confidence in environmental groups while only 11% had hardly any confidence in those groups. Clearly the livestock industry is not regarded any differently than any other big business in the minds of the general American public, even though ranchers themselves may see themselves as quite different than oil drillers, miners, or other extractive workers.

Respondents also were asked to rank seven broad public groups according to how much priority their needs should be given when decisions about federal rangelands are made (Figure 2). A low number indicates that federal managers should be more responsive to that group. As in the attitude portion of the survey, we found support for giving priority to the needs and desires of local affected communities. However, respondents made a clear distinction between local *communities* and local *industry*. The latter ranked below national public opinion and the natural resource agencies, and about the same as environmental groups. Respondents also made a distinction between local communities—those immediately affected—and public opinion within the affected states, suggesting that Americans see federal rangelands as a national resource for which western and eastern concerns should be given equal emphasis in management and policy. This is also consistent with our finding that global public opinion should receive the least weight in decisions about U.S. public lands.

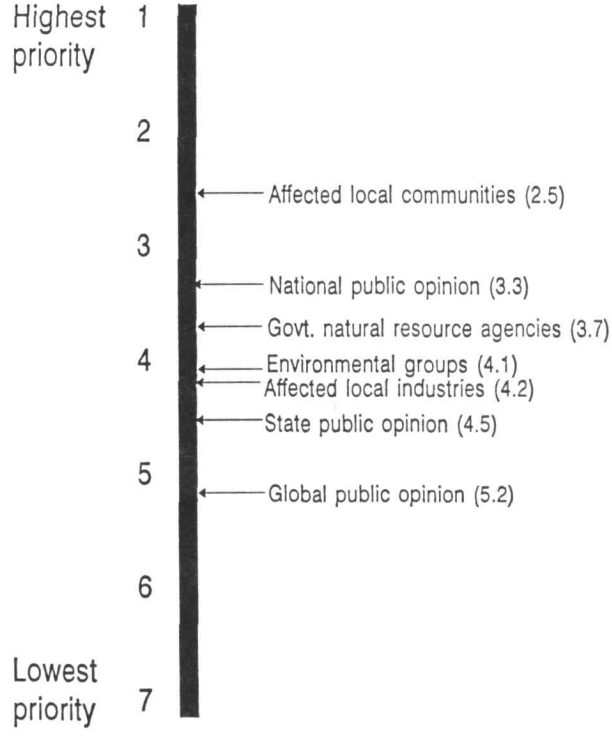

Fig. 2. Mean rankings, range policy priorities.

Profile of Respondents

The remainder of the questions on the survey offer insight into the public itself: Who are these people who feel this way about federal rangelands? Responses to a six-question environmental ethics scale (Steel et al. 1993) revealed a pattern of beliefs that could be called environ-

Table 4. General orientations toward the society-environment relationship.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Environmental Ethics scale:			(%)		
Plants and animals exist primarily for human use	31	22	13	14	20
Humankind was created to rule over the rest of nature	31	19	12	10	28
Humans have an ethical obligation to protect plant and animal species	6	1	4	23	67
Humans and nature can live together in productive harmony	4	2	9	22	64
The earth should have far fewer people on it	12	12	40	14	22
Wildlife, plants, and humans have equal rights to live and develop on the earth	10	11	7	23	49
Science and technology scale:					
Technology will find a way of solving the problem of shortages of natural resources	14	24	22	21	19
People would be better off if they lived without so much technology	18	24	22	19	17
Technical & scientific experts are usually biased	6	16	36	24	18

mentalist or biocentric (Table 4). More than 80% agreed with statements that "humans have an ethical obligation to protect plant and animal species" and that "humans and nature can live together in productive harmony." Two-thirds agreed with a statement that "wildlife, plants and humans have equal rights to live and develop on the earth," although fewer indicated *strong* agreement with such a strongly biocentric statement. Respondents tended to disagree that "plants and animals exist primarily for human use" and "humankind was created to rule over the rest of nature."

Further insight into the public's orientation toward resource management can be gained by examining responses to a three-item scale about science and technology (Table 4). The results show some ambivalence. Respondents were twice as likely to agree than to disagree with a statement that "technical and scientific experts are usually biased." About a third of the sample weren't sure whether such bias is prevalent. Respondents were about equally divided between those who believe technology can offer answers to natural resource problems and those who believe we'd be better off without so much technology.

Demographic data showed that the average respondent was in his or her early 50s, had attended at least "some college," and lived in a town of 25,000 or more people. Our previous studies (e.g., Shindler et al. 1993) yielded a nearly identical demographic profile, supporting our contention that our sample represented the "general public." Only a small minority of respondents (13%) belonged to an environmental group. Eleven percent said they or their family "depend on the farming or livestock industry" for their livelihood.

Implications for Range Managers

If only one message were to be drawn from this survey, it is that there is widespread public disapproval of current range policies, reflecting a growing disenchantment with commodity-focused management on public lands as well as a belief that range condition is deteriorating. The public is ambivalent about science and technology—and by extension, the government bureaucrats and resource professionals who seek technological solutions to resource management problems—and mistrustful of the motives of the industry groups that have long been active participants in the management of federal rangelands.

These results reflect a broad national trend toward increasing environmentalism (Dunlap 1991), seen here in responses to the environmental ethics scale as well as to specific questions about rangelands. The attitudes expressed here closely resemble those in a recent study of attitudes toward federal forest management (Shindler et al. 1993) except that neutral responses were much more common in the rangeland survey. Depending on the question, as many as 45% of our sample was unsure how they felt about rangeland issues, with the greatest amount of uncertainty coming when the question referred to a range-specific issue such as overgrazing or grazing fees.

The relatively large number of noncommittal responses is one reason why we believe public attitudes about federal rangeland management are shallow-rooted and vulnerable to strategies for inducing attitude change. The other reason is that the attitudes appear to be based on misconceptions about the overall state of range resources on federal lands. Professional range conservationists know that environmental conditions have steadily improved since the turn of the century, with the probable exception of riparian areas which until recently were treated as "sacrifice zones" (Holechek et al. 1989). However, the public believes rangelands are overgrazed, seriously eroding, losing riparian vegetation, and that conditions are getting worse instead of better. If Americans can be convinced that such problems are more isolated than widespread, and that conditions are improving, attitudes toward range management may improve. At the same time, they must believe that range managers value wildlife, aesthetics, and other amenity resources as highly as livestock, energy or mineral production. Commodity-focused management will not find favor with a public that strongly prefers multi-resource or biocentric approaches.

Before launching a broad program intended to "educate the public" and induce positive attitude change,

range groups should consider some of our other results. Access to information doesn't influence environmental attitudes by itself; it also matters where the information comes from (Steel et al. 1990). If the public is unsure about the credibility of the source of information it receives about rangelands, the information is less likely to influence beliefs about range conditions or attitudes toward range management.

For example, we found little public confidence in the livestock industry. Ranchers, like others who earn their living obtaining resources from public lands, may be seen as foxes who have been allowed for too long to guard the henhouse. Government-employed range professionals might make a more credible information source than the national cattlemen's or woolgrowers' groups, but here, too, some caution should be exercised. In a recent survey of SRM members (Banner et al. 1993), range professionals estimated that the public's view of their professional credibility was only half of what they thought it should be. Our survey did not measure credibility of professionals themselves, but we did find relatively low levels of confidence in the agencies that range professionals usually work for. Previous research has suggested that universities are viewed as somewhat more credible information sources than federal agencies (Steel et al. 1991). Therefore universities may be the best choice for leading a public awareness/education program for rangelands.

A further cautionary note should be sounded about the nature of the message the public hears about range management. An appeal that emphasizes technological advances may fall on deaf ears, given that half of the public believes society already relies too heavily on technology to solve natural resource problems. More successful appeals are likely to be those that address public preferences for multi-resource management, emphasize non-commodity resources, and acknowledge past mistakes (e.g., riparian management) while pointing to newer resource-friendly policies and practices. And of course, managers should truly follow those policies, use those practices, and emphasize those resources; the surest way to damage agency credibility is to be caught breaking a promise to the public.

Finally, we learned things about two rangeland issues of particular interest to the range profession today. Regarding grazing fees, we found strong public support for a fee increase. This widely held viewpoint undoubtedly influenced Clinton administration officials as they prepared their recent fee-hike proposal. As Workman (1988) points out, support for fee hikes is often associated with belief that low fees encourage overgrazing, even though the two issues have little to do with each other. Therefore it is quite possible that the high level of support for fee hikes is influenced by the widespread perception that federal rangelands are in decline. Yet it is well-known that Americans want to reduce the tax burdens associated with government services. Therefore it may be encouraging to grazing leaseholders that the public is willing to reduce the shock of a fee increase by phasing in a higher rate rather than imposing a sharp increase immediately.

The second key issue is the "Cattle Free" movement. We found some public support for a ban on livestock grazing on federal rangelands. However, there was also tremendous uncertainty about the appropriateness of a grazing ban, as nearly half of our sample were neutral on the issue. This is one issue where a strong public relations effort may truly affect public policy. Interest groups on all sides of the issue are likely to want to do so.

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