

Using Role Analysis to Plan for Stakeholder Involvement: A Wyoming Case Study

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Abstract

*Prior to implementing laws and policies regulating water, wildlife, wetlands, endangered species, and recreation, natural resource managers often solicit public input. Concomitantly, managers are continually seeking more effective ways to involve stakeholders. In the autumn of 1999, the Wyoming Game and Fish Department sought to develop a state management plan for its portion of the Yellowstone grizzly bear (*Ursus arctos horribilis*) population if it was removed from the federal threatened species list. A key aspect of developing this plan was the involvement of federal, state, and local agencies, representatives from nongovernmental organizations, and citizens. Wyoming wildlife managers asked researchers from the United States Geological Survey to demonstrate how the Legal-Institutional Analysis Model could be used to initiate this process. To address these needs, we conducted similar workshops for a group of state and federal managers or staffers and a broad group of stakeholders. Although we found similarities among the workshop groups, we also recorded differences in perspective between stakeholder groups. The managers group acknowledged the importance of varied stakeholders but viewed the grizzly bear planning process as one centered on state interests, influenced by state policies, and amenable to negotiation. The other workshops identified many stakeholders and viewed the decision process as diffuse, with many opportunities for entry into the process. These latter groups were less certain about the chance for a successful negotiation. We concluded that if these assumptions and differences were not reconciled, the public involvement effort was not likely to succeed. (WILDLIFE SOCIETY BULLETIN 34(5):1306–1313; 2006)*

Key words

*endangered species, grizzly bear management, negotiation, public participation, stakeholder analysis, *Ursus arctos horribilis*, Wyoming.*

Wildlife and natural resource managers must find creative and constructive ways to initiate stakeholder and citizen involvement in collaborative processes. Given the resources allocated to the collaborative process, resource managers should ask whether these processes are producing better plans or “plans that matter” (Burby 2003, Lafon et al. 2004). Burby (2003) argues that strong plans, or plans that matter, are those that come from planning processes involving a broad array of stakeholders and result in reciprocal learning, so both managers and members of the public have opportunities to broaden their understanding of the problem at hand. Strong plans also must effectively remedy problems and must be implemented.

In the context of public participation in land management planning processes, 2 general axioms have emerged. First, there are significant areas of agreement among the public about the roles and expectations an agency or organization must live up to in order to maintain broad-based credibility in its public-involvement activities (Steelman and Ascher 1997, Shindler and Cheek 1999, Innes and Booher 2004). Second, there are fundamental differences of opinion concerning the effectiveness of methods that incorporate the public in decision-making processes (Lindblom and Cohen 1979, Schon 1983, Yaffee and Wondolleck 1997, Innes and Booher 2004).

Role analysis is one tool managers can use to determine how to involve stakeholders in a planning process or management decision. The objective of a role analysis is to

develop a better understanding of orientations and likely strategies of stakeholders regarding a proposed course of action. Role analysis often is used to obtain information that explains organizations’ actions regarding the natural environment using concepts and methods of social science (Lamb et al. 1999a).

In the autumn of 1999, the Wyoming Game and Fish Department (WGFD) was faced with the task of developing a plan for managing grizzly bears (*Ursus arctos horribilis*) in many parts of the state if they were removed from the list of threatened species. In 1975 this species was designated as threatened under the Endangered Species Act of 1973 (16 United States Code 1531–1544, 87 Stat. 884). As the population began to meet recovery targets identified in the federal grizzly bear recovery plan, the United States Fish and Wildlife Service (USFWS) began to investigate the option of removing the Yellowstone-area grizzly bear from that list. One requirement for delisting was that affected states construct management plans that provided reasonable assurance the Yellowstone population would not return to threatened status. The goal of the WGFD was to develop a science-based, community-supported, statewide management plan for grizzly bears. Our role in this process was to help WGFD and stakeholders understand how to most effectively include the public in the planning process. Our work with the State of Wyoming involved using a role-analysis model to improve the chances for meaningful public participation by helping managers and stakeholders understand the dynamics of the process of writing a state grizzly bear management plan.

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Methods

The Legal-Institutional Analysis Model

The Legal-Institutional Analysis Model (LIAM) was developed in 1983 to diagnose political and social aspects of natural resource conflicts (Lamb 1980, 1987, Wilds 1986, Lamb et al. 1999a), and has been used to understand and prepare for a variety of resource management decisions (Lamb et al. 1998, Cady and Soden 2001). The LIAM is based on political science, bureaucratic decision-making, and social psychology, and contains 3 assumptions about organizational behavior: 1) organizations operate by making incremental adjustments of past decisions (Simon 1957, Lindblom 1959); 2) organizations adhere to predictable organizational processes, or standard operating procedures (Cyert and March 1963, Allison 1971); and 3) members of an organization tend to develop a shared worldview that limits critical evaluation of problems (Janis 1972). Taken together, this means an organization's response can be predicted by examining past behavior in similar situations.

Organizational role is a combination of process and outcome preference. Preference for process is a continuum ranging from a brokered or negotiated decision to an arbitrated decision. Preference for outcome is measured along a separate continuum ranging from Guardian (maintenance of the status quo) to Advocate (urging change in the way resources are allocated or decisions are made). Each organization with a stake in the outcome is analyzed and mapped according to its score on each of these 2 dimensions (Fig. 1) and can be extreme, moderate, or weak in its role. For example, an extreme Advocate-Arbitrator would have a strong preference for a change from status quo planning or management and would prefer a settlement made by a third party (a court or regulatory agency, for example). A moderate Broker-Guardian would support a negotiated decision favoring the status quo.

The LIAM also evaluates stakeholder power in terms of an organization's strengths and needs. This analysis considers power as consisting of 3 elements: resources, support, and information. An organization's resource power includes funding, personnel, statutory or physical control, and centrality of the issue to agency mission. Support power is measured by determining the number and influence of groups that promote the organization. Information power is a measure of an organization's ability to collect and analyze data and the perceived level of credibility of that data or analysis.

The LIAM has been written into a Windows-based software program (Lamb et al. 1993) that allows users to respond to questions about selected stakeholders. The user answers a series of questions for each stakeholder by selecting a response on a 5-point scale from "strongly agree" to "strongly disagree." For each role (Guardian, Advocate, Broker, Arbitrator), several questions explore each attribute of the role. For example, one attribute of the Arbitrator role is a preference for formal processes. Three different questions measure the presence and strength of this attribute. The software is designed so that the questionnaire

is different each time. Responses for each role are summed and averaged to produce a score. The lower score is subtracted from the higher score to determine role. If an organization's Broker score is 4.2 and Arbitrator score is 2.5, that organization would be a moderate Broker (1.7). The same procedure is used to determine the Guardian-Advocate role. Results are displayed in a role map (Fig. 2) generated by the software program.

Power analysis is part of the LIAM questionnaire. A library of questions measures resource, information, and support power. The results are displayed in a bar graph that shows amount of power for each organization and indicates the distribution among the 3 power categories. A full description of the model can be found in Cady and Soden (2001), Lamb et al. (1999a), and Lybecker (1996).

Using the LIAM in a Workshop Setting

Workshops are useful techniques for launching public participation processes. A workshop is designed to promote trust and open communication as a means to develop an atmosphere of creative problem-solving (Kelman and Cohen 1976). The objective of a LIAM workshop is to increase the chances for successful collaboration by walking participants through several stages and helping them develop a common perspective on the problem setting. Generally, LIAM workshops are held over a 2-day period in a neutral setting. Workshop participants are selected by identifying organizations with a demonstrated or potential interest in the problem and inviting representatives to attend. As a practical matter, the limit on attendance is about 35 people. Because of the selection criteria, attendees are stakeholders (Decker et al 1996). In most cases not all stakeholders attend, and it is common for the workshop group to identify new stakeholders.

Typically, LIAM workshops take place in 5 stages. In the first stage, facilitators and participants introduce themselves and establish ground rules. In the second stage, key issues and concerns are identified in a facilitated brainstorming session. In the third stage, a second brainstorming session is conducted to generate a comprehensive list of stakeholders. Once issues are identified and stakeholders listed, the fourth stage is to complete the LIAM questionnaire. After a brief overview of the LIAM and instruction on how to use the software, participants are assigned to an analysis team of 3-4 people. Facilitators construct each team to ensure a mix of organizations. Each team is assigned 5-6 stakeholders to analyze using the LIAM. Some stakeholders are assessed by more than one team so analyses can be compared for consistency. After all teams complete the LIAM exercise, facilitators collate responses and produce one large role map showing each organization's placement and a list of strengths and needs. In the fifth stage, participants review and discuss roles, strengths, and needs of each stakeholder. This includes discussion of strategic implications of the role map. A role map shows what types of outcomes are most valued by individual stakeholder groups and what means of attaining those outcomes they are likely to promote (negotiation or arbitration-litigation). The power analysis

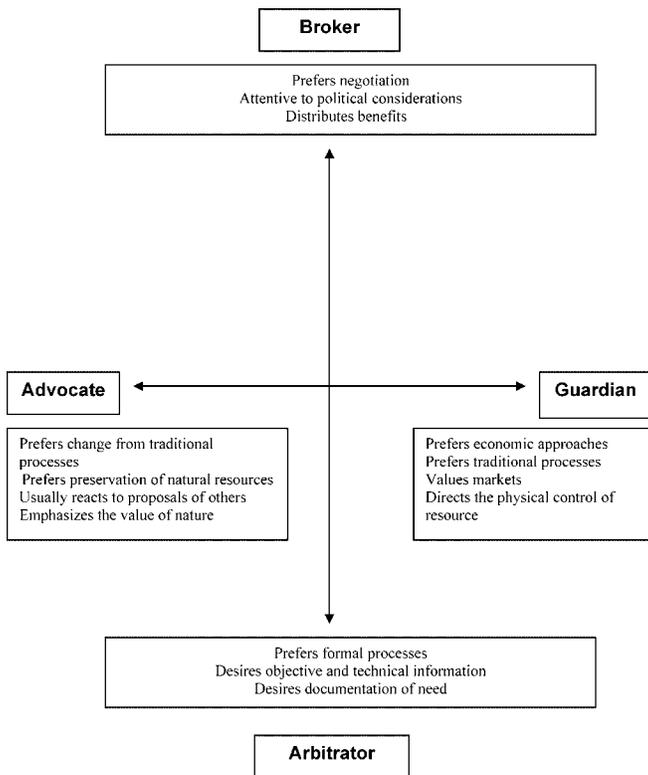


Figure 1. Attributes of each role in the Legal-Institutional Analysis Model (LIAM). Attributes are the variables measured for each role type. The LIAM software asks at least 2 questions to measure each variable.

shows what resources groups can bring to bear on their preferences (or what they are lacking). Facilitated group discussion helps participants consider productive ways to approach the problem.

The Wyoming Workshops (1999)

For the administrators' workshop in Cheyenne, Wyoming, USA, staff from the WGFD Director's office invited participants to attend. The workshop purpose was to perform the LIAM role analysis, and evaluate the utility of the LIAM and workshop format for providing input on how to design a public involvement process. The workshops in Powell and Riverton, Wyoming, were each 2-day events. We held both workshops on local college campuses where computer lab facilities were available. Before the workshops, we mailed participants an invitation letter that explained the purposes of the workshops: 1) identify obstacles and opportunities for the process of developing a state grizzly bear management plan, 2) develop recommendations for WGFD about how to conduct the process of writing the plan, and 3) how to include stakeholders in that process. We also told potential participants the LIAM would be used as part of the workshops.

For the Cheyenne administrators' workshop, we completed analysis and discussion in 1 day. To accommodate the shortened format, we condensed the "issues" discussion and placed emphasis on stakeholder analysis. In Riverton and Powell, participants reviewed and modified results on the second day of the workshop. Facilitators provided an

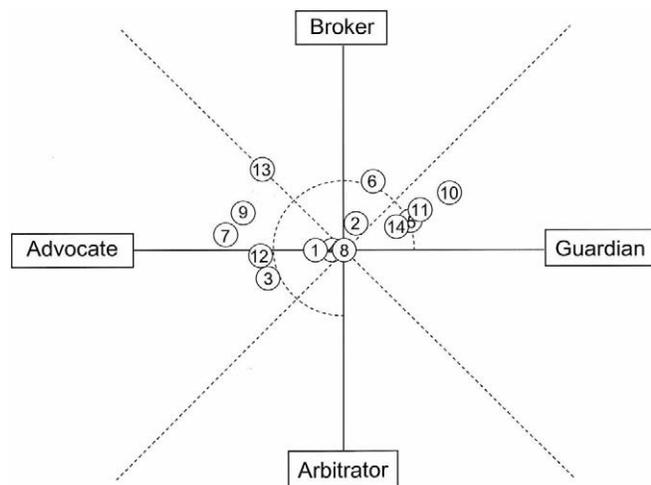


Figure 2. Output from the Legal-Institutional Analysis Model (LIAM) showing how organizations are placed on the role map. Each circle represents the score for a single organization. Names of organizations have been omitted.

opportunity for participants to view and discuss the roles, strengths, and needs of each stakeholder. After discussion of potential negotiation strategies, participants discussed the LIAM results and identified any likely conflicts. Finally, we facilitated a brainstorming session about the best process for writing a management plan and ended the day with a discussion about criteria for a good planning process.

Direct comparison of the Riverton and Powell workshops to the Cheyenne workshop is difficult because the fundamental objectives were different. However, all 3 groups completed the LIAM role analysis. Thus, those role analyses can be compared to determine whether all groups of participants viewed stakeholder roles similarly (Fig. 3). For the Wyoming workshops, the procedures we used were reviewed and accepted through the administrative procedures of the Wyoming Department of Game and Fish. We were required to demonstrate the protocol, and the department approved the use of the LIAM for the workshops as part of its public involvement process.

Results

Riverton and Powell Workshops

The Riverton and Powell workshops were similar in many respects. Each workshop included representatives from federal, state, and local agencies. Members of a variety of interest groups were also present, including commercial interests, hunting interests, ranching interests, and conservation and environmental protection groups.

When asked to identify key planning issues in the process, the Powell and Riverton groups produced similar lists. Although they did not rank issues, the first mentioned in each workshop focused on public participation. Participants mentioned the need for an open process, questions about who controls the process, and the importance of a level playing field.

In the stakeholder brainstorming sessions, 77 stakeholders were identified at the Powell workshop and 79 in Riverton.

The list was narrowed by asking participants to vote for their top 3 by selecting those they believed would be most directly involved in the decision process. This identified 27 stakeholders in Powell and 29 in Riverton. These were the groups analyzed in the LIAM sessions. Both groups included certain central stakeholders: WGFD, Wyoming Game and Fish Commission, Wyoming Governor's office, Bridger-Teton National Forest, Shoshone National Forest, the Greater Yellowstone Coalition, Yellowstone National Park, Grand Teton National Park, the USFWS, and Teton County Commissioners.

The 2 workshops produced role maps with many similarities (Fig. 3). Each group identified 10 Guardian-Broker organizations, 4-6 Guardian-Arbitrator organizations, 4-6 Advocate-Broker organizations, and 8-9 Advocate-Arbitrator organizations. Three organizations in each workshop were assigned a single role. In Powell, Targhee National Forest was a Broker and Wyoming Woolgrowers and private property owners were Guardians. In Riverton, WGFD (Wildlife Division) was an Advocate, and both Wyoming Outfitters' Association and Teton County Commissioners were Guardians. The most agreement between Riverton and Powell was with Advocate-Arbitrator role classifications. Although the 2 workshop groups did not analyze identical sets of organizations, both workshops found the Greater Yellowstone Coalition, the USFWS Regional Office, and Yellowstone National Park were likely to approach the problem of developing a grizzly bear management plan from the Advocate-Arbitrator perspective. The 2 workshop groups also classified Bridger-Teton National Forest and WGFD (Wildlife Division) as Advocate-Brokers.

The most important considerations for developing a planning process were similar in both workshops. In Powell the top 4 criteria were 1) involvement of all stakeholders, 2) a concept of how the plan would be developed, 3) a good understanding by all stakeholders of the issues and one another's priorities, and 4) availability of adequate funds. The Riverton group's top 4 criteria were 1) integrative negotiation, 2) high public involvement, 3) high public education, and 4) clearly established sideboards. Both groups stated that roles of the stakeholders, WGFD, the Game and Fish Commission, and elected officials must be clear. If stakeholders were to be effectively engaged, they needed to understand the rules under which recommendations would be accepted or rejected.

Another set of concerns focused on the need for access to information about grizzly bears and about requirements and constraints of the plan writing process. Finally, both workshop groups wanted to know how the process of writing and reviewing a plan would proceed and whether any organization or group would have the power to reject a plan developed by a multiparty working group. They believed traditional or status quo approaches would by definition limit public involvement and result in a process in which WGFD drafted a plan and presented it for public comment.

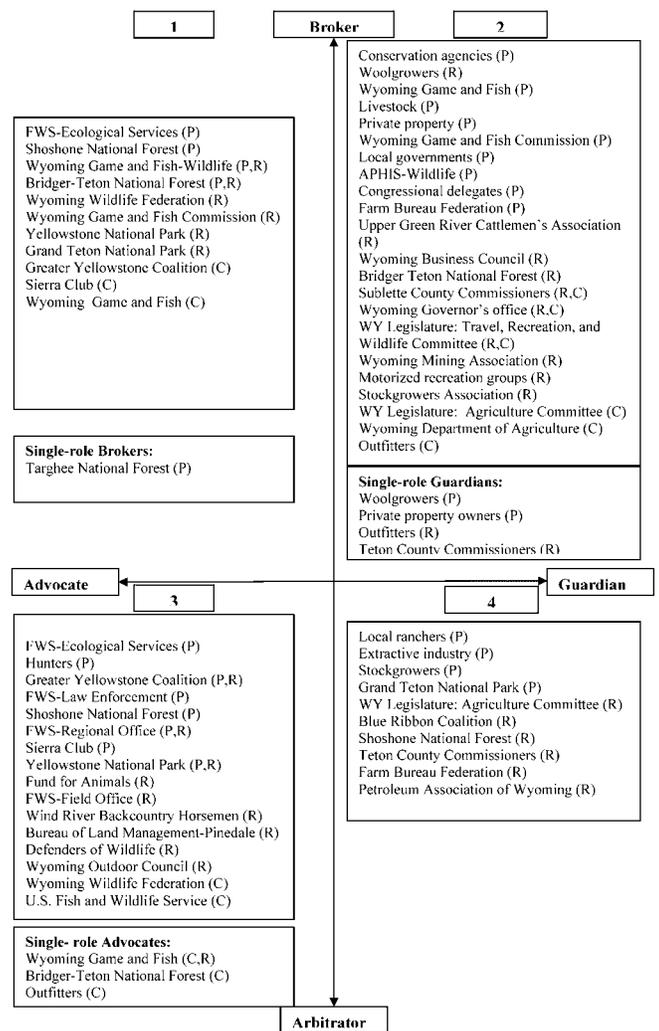


Figure 3. Legal-Institutional Analysis Model (LIAM) roles for Powell (P), Riverton (R), and Cheyenne workshops, held in Wyoming, USA, during 1999. Quadrant 1 is Advocate-Broker, quadrant 2 is Guardian-Broker, quadrant 3 is Advocate-Arbitrator, and quadrant 4 is Guardian-Arbitrator. Single-role assessments are listed by quadrant.

Beyond general agreement that public involvement in writing the plan was important, the workshops did not result in a recommended planning process. However, there was considerable support for use of a steering committee of representative stakeholders to help guide the planning process.

We gave each workshop group the same instructions for selecting the shorter list of stakeholders for analysis, but the final lists exhibited some differences. The Powell group was more willing to "lump" some stakeholders and analyze these interests as a group. The Powell workshop list included "livestock," "stockgrowers," "extractive industries," "conservation agencies," "local ranchers," and "hunting groups." Some stakeholders that could have fallen into one of these groups were listed and analyzed separately because the perceived strength of their involvement was deemed to warrant a separate analysis. For example, the Wyoming Woolgrowers Association could have been included in the more general category of "stockgrowers" or "livestock," but

a decision was made to perform an individual assessment because their involvement in the development of a grizzly management plan was considered crucial. Likewise, the Sierra Club, Jackson Hole Conservation Alliance, and Greater Yellowstone Coalition were each evaluated separately. The 3 groups could have been analyzed as a combined “environmental interest group,” but this grouping would have implied more uniformity of purpose than may have existed among the organizations.

In Riverton, rather than list “conservation agencies,” the group analyzed Wyoming Outdoor Council and the Wyoming Wildlife Federation. Extractive industries were each analyzed separately: Petroleum Association of Wyoming, Wyoming Mining Association, and Wyoming Timber Association. Likewise, several ranches were analyzed separately, as were the various county commissioners (Sublette, Teton, and Fremont).

In the Powell and Riverton workshops, there were internal differences (2 role analyses from the same workshop were different) and differences between workshops. Internal differences on the Guardian–Advocate continuum included WGFD (Wildlife Division) and Bridger-Teton National Forest. In each case one team’s analysis produced a Guardian role and the other an Advocate role. Differences between workshops included Grand Teton National Park, Wyoming Game and Fish Commission, and Shoshone National Forest. In these cases, one analysis produced a Guardian, the other an Advocate. For example, the Powell group found the Wyoming Game and Fish Commission to be a Guardian–Broker, while the Riverton group assessed the commission as an Advocate–Broker. No federal agencies except the Animal and Plant Health Inspection Service were unanimously rated as Guardians. Likewise, no Wyoming state agency was rated unanimously as an Advocate organization.

The Broker–Arbitrator role continuum indicates how much an organization is likely to bargain to reach a decision. Results were mixed on this continuum. The WGFD (Wildlife Division), Wyoming Game and Fish Commission, and Bridger-Teton National Forest were uniformly characterized as Brokers. Wyoming Mining Association was found to be a Broker, while both “extractive industry” and “Petroleum Association of Wyoming” were classified as Arbitrators.

Comparing the Cheyenne Managers’ Workshop to the Powell and Riverton Workshops

The Cheyenne analysis produced a role map that included 7 Guardian–Brokers, 3 Advocate–Brokers, 2 Advocate–Arbitrators, and 3 single-role (Advocate-only) assessments. The Advocate-only organizations were WGFD, Bridger-Teton National Forest, and outfitters. The Cheyenne and Riverton workshops placed the Wyoming Governor’s office, Wyoming Legislature—Travel, Recreation and Wildlife committee, and the Sublette County Commissioners in the Guardian–Broker category. All 3 workshops placed the USFWS as an Advocate–Arbitrator organization (Fig. 3).

Cheyenne workshop participants differed from those in

Powell and Riverton. In Cheyenne the group consisted of staff from the Director’s office of the WGFD, a representative from the Governor’s office, USFWS staff assigned to grizzly bear management issues, and others with direct involvement in grizzly bear management decisions. This group represented state and federal interests in the issue of grizzly bear management. Although they were well aware of the broad interest of many stakeholder groups, these workshop attendees were policy-level state and federal personnel. They were able to represent their organizations and had experience working with many stakeholder groups but did not have the benefit of a workshop setting with a diverse group of stakeholders. The workshop group in Cheyenne chose 13 stakeholders for analysis. With only a small group of attendees and a shortened workshop format, it was not possible for the group to analyze 30 or more stakeholders. Thus, this group analyzed “outfitters” as a group and selected a few conservation or environmental interest groups. The Cheyenne group viewed key stakeholders (the Governor’s office, the WGFD, the Travel and Agriculture committees of the state legislature, and the Wyoming Department of Agriculture) as state-level entities. Because their final stakeholder list differed from those produced in Powell or Riverton, they were not readily comparable. One clear distinction in role analyses was that the Cheyenne group placed a majority of organizations in the Broker category, with 7 Guardian–Brokers and 3 Advocate–Brokers. Two Advocate–Brokers, the Greater Yellowstone Coalition and the Sierra Club, were identified as Advocate–Arbitrators in the Powell and Riverton groups.

Discussion

Convening a series of workshops on the question of how to involve stakeholders in developing a state grizzly bear management plan was challenging. This was an issue about which many had very strong feelings, and people were seeking ways to contribute to and influence the planning process. We began this by questioning consistency of results among similar workshops with different participants. The answer was dependent upon several sets of circumstances.

We found differences between the Cheyenne group and the Powell and Riverton workshops in 2 areas. First, the Cheyenne group defined important stakeholders differently from the Powell and Riverton groups. Cheyenne participants identified a relatively broad set, and their analysis included organizations in every role category. However, the emphasis in Cheyenne was on state-level groups, particularly the WGFD, Game and Fish Commission, the Governor’s office, and committees in the state legislature. While not disregarding the importance of other key interests, the Cheyenne group clearly viewed the grizzly bear planning process as one centered on state interests and influenced by state policies. From the Cheyenne group’s perspective, deciding how to structure the process of writing a grizzly bear management plan was likely to be a negotiation among a narrower range of stakeholder groups than envisioned by Powell and Riverton attendees. The other workshops

identified many stakeholders and may have viewed the decision process as quite diffuse, with opportunities for entry into the process at many levels.

The second difference between Cheyenne and the Riverton and Powell workshops was how organizations were rated. There are at least 2 dimensions on which role analyses may differ. First, organizations may differ in terms of their Advocate–Guardian assignments. When this occurs it means there is some question about preference for type of outcome in the minds of the individuals who performed the LIAM analysis. Outcome preference reflects values and role differences along the Advocate–Guardian continuum, and it is very important because orientation of this role often determines the level of conflict in the decision-making process. Second, role analyses can differ in how organizations are placed on the Broker–Arbitrator continuum. While this role is very important, it frequently is not value-based. It simply reflects the type of decision-making process each organization views as most effective. Organizations sometimes will begin a decision process in one role but switch to the other or become less extreme as time passes and options for decision-making become more apparent. For example, parties may begin with a belief that the problem is amenable to negotiation but later appeal to a court for resolution if negotiation fails.

The Cheyenne workshop rated most involved organizations as Brokers in favor of negotiation. The Powell and Riverton workshops produced a role map with stakeholders more evenly split between Brokers and Arbitrators. One possible explanation is the group with a less diverse stakeholder mix (Cheyenne) focused analysis on organizations most likely to negotiate the problem, while participants of the other workshops saw the process as a broad effort involving many stakeholders with conflicting views. A related explanation is that the Cheyenne group was itself the group with the power to broker an agreement. Thus, for Cheyenne participants the problem looked like one that could be negotiated. These agencies or groups have been instrumental in making past wildlife management decisions or have benefited from past decisions. They are comfortable in this arena and know what the rules are. Thus, it is in their best interests to promote a decision process similar to past processes. When the question was put to broader groups in the other 2 workshops, the outlooks and experiences of the participants were reflected in their analyses. The lesson is that stakeholder-analysis techniques should include input from a diverse range of perspectives to take advantage of a wide range of knowledge and avoid the problem of creating an analysis overly influenced by one point of view.

Results from the Powell and Riverton workshops were similar but not identical. Role analyses differed for several reasons. One, the workshop groups approached the question of grouping or splitting differently. The likely effect of combining several similar groups was that stakeholder-specific nuances were lost in generalizations about a collection of organizations, even though those organizations might appear to be like-minded. This was a lesson for

facilitators as well. We wanted to allow each group to make decisions without excessive input, but more direction may have been warranted in this case.

Two, teams performing the LIAM analysis may have different perceptions of the same stakeholder. The Powell and Riverton groups viewed the Wyoming Game and Fish Commission quite differently—one as a Guardian and one as an Advocate. This is important because the commission is ultimately responsible for accepting or rejecting the grizzly bear management plan at the state level and deciding whether to submit the plan to the USFWS for final approval. Team members may have had specific knowledge of the preferences of only a limited number of commissioners and responded to the LIAM questions from that understanding. Based on our observations of Wyoming Game and Fish Commissioners at the workshop, we concluded that individual commissioners were likely to approach the planning process differently: some as Guardians and others as Advocates. Thus, it is vital that participants understand the interplay between organizational role and power and individual personalities and preferences.

Three, role analyses may vary because of lack of knowledge about stakeholders. Teams of 3 or 4 assess each stakeholder group and usually the combined experience of the team is sufficient. When this is not the case, the workshop group or facilitators may notice that a role analysis seems inaccurate, based on their knowledge of the stakeholder, and they query the team about its perception of the stakeholder. In most cases the problem is identified as lack of knowledge of the stakeholder. In one example a team assessing a tribe was asked to explain the role analysis and noted that they had insufficient experience with the tribe to provide accurate responses (Lamb et al. 1998). The lesson for participants is they must take time to learn about stakeholders before negotiation begins. Using stakeholder assessment techniques to identify knowledge gaps is a potentially useful strategic exercise in negotiation preparation, and a workshop setting provides a forum for discussing and clarifying results of a role analysis.

Each workshop produced 3 single-role analyses, suggesting a preference for one aspect of a role (a Guardian, for example). Eight of the 9 were on the Guardian–Advocate continuum and only one on the Broker–Arbitrator continuum. For those 8, analysis teams were able to discern a values-based or outcome preference but not a process preference. For those rated only as Guardians, teams understood the preference to conduct the planning process following standard or traditional procedures. What they did not understand was preference for bargaining or arbitration. Likewise, for the organization assessed as a Broker the preferred process was understood, but not whether the organization promoted a decision process that would support the status quo or advocated a different approach. The likely reason for a single-role analysis was lack of knowledge or understanding by the assessment team. In some cases the conflict is not yet well developed and an organization's approach is uncertain.

The LIAM role analysis helped workshop participants develop a broad view of the planning process for grizzly bears. When the workshops concluded, they had a better understanding of who was likely to be involved, what they wanted to accomplish, and what means they might use. Previous LIAM workshops produced similar results. In one LIAM workshop, participants were surprised by the conclusion that many stakeholders were Brokers. The apparent willingness to bargain produced incentives to pursue a negotiated settlement (Lamb et al. 1998).

During the workshops participants were able to consider opportunities and constraints for public involvement. Understanding value differences and willingness to negotiate helped participants evaluate potential alliances and roadblocks. By the end of the workshops, it was apparent that value differences and disagreement about the feasibility of negotiation, as shown on the role map, meant that designing an acceptable process would be difficult. But participants also could see that some organizations had similar objectives and might make good partners. In previous LIAM workshops, participants used the model's power scores to determine how a potential ally could contribute resources, information, or support (Lamb et al. 1998).

Role analysis allowed participants to think systematically about each organization. Using a model that imposed a structured analytic perspective required participants to use their combined knowledge to develop a perspective on the problem. Because the model evaluated each organization on the same criteria, the output gave a common language for discussion. We found the 3 workshop settings produced similar, but not identical, analyses.

The workshop process helped parties to interact with one another in a controlled setting. Participant evaluations of the Riverton and Powell workshops showed that process strengths included open dialogue and exchange of ideas, initiation of dialogue among stakeholders, the fact that the facilitators had no stake in the outcome, and the opportunity to work in teams (Lamb et al. 1999b). The task of working on role analyses in teams meant individuals needed to agree on answers to LIAM questions and in doing so could demonstrate their knowledge and understanding. The team analysis process is an important opportunity for stakeholders to develop positive relationships (Lamb et al. 1998, 1999b).

Another benefit of the workshop was that parties began to take a problem-solving approach to the question of planning

for state grizzly bear management. By the end of the meeting, each group had compiled recommendations for the WGFD about the planning process. Long discussions about the challenges of convening and participating in the process focused on the difficulty of proceeding in a way that satisfied diverse stakeholders. However, participants offered creative and thoughtful suggestions.

Conclusion

Most workshop participants were intensely interested in the subject of management planning for grizzly bears and had attended previous meetings or workshops on the subject. Thus, they were aware of the complexity of issues and the enormous personal and professional commitment required to carry through with collaborative planning. However, the conclusion reached by both workshops was that a plan constructed without input and support from the public and agencies was doomed to endless rounds of argument and, ultimately, failure.

One lesson from these workshops was that developing a common view of citizen involvement in the process is prerequisite to successful planning efforts. We found differences in how potential participants thought the process would proceed and who they thought would be involved. There was a tendency for state government to focus on roles of state agencies or departments in making decisions. In Powell and Riverton, some participants expressed the sentiment that the status quo decision process in Wyoming did not allow for meaningful public involvement. We suspect this concern could be found in many states. Such a difference in orientation is likely to stymie even the most sincere efforts to promote citizen involvement in natural resource decision-making.

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