

Rethinking public participation in natural resource management: Concepts from pluralism and five emerging approaches

Steven E. Daniels¹ and Gregg B. Walker²

Dept. of Forest Resources¹

Oregon State University, Corvallis, Oregon

Dept. of Speech Communication²

Oregon State University, Corvallis, Oregon

Keywords: forests, natural resource management, community, public participation, conflict management, communication, pluralism.

Abstract

Because it assumes that multiple values and worldviews exist, the political philosophy of pluralism is a compelling foundation for the design of participatory processes in natural resource management and rural development. It provides a basis for critiquing much of the public participation tradition that dates back almost three decades in many natural resource and environmental management agencies. Certainly the recent pattern of seemingly intractable conflicts has revealed that the traditional methods that agencies have used to involve the public in management decisions have significant limitations. A learning-oriented collaborative approach would be a public participation orientation more compatible with pluralism. This paper presents and compares five methods for collaboration: Transactive Planning, Communities of Interests-Open Decision-making (sic), Search Conferencing-Participative Design Workshop, Constructive Confrontation, and Collaborative Learning. It also introduces the "Progress Triangle" as a framework for assessing the collaborative potential of a given environmental or natural resource conflict situation.

Revoir la participation du public dans l'aménagement des ressources naturelles: Concepts issus du pluralisme et cinq méthodes émergentes

Sommaire

Basée sur l'existence d'une multitude de valeurs et des visions du monde, la philosophie politique du pluralisme représente un fondement indispensable dans la conception de méthodes participatives pour l'aménagement des ressources naturelles et le développement rural. Elle permet de faire la

critique d'une bonne partie de l'approche traditionnelle de participation du public qui date d'une trentaine d'années dans de nombreux organismes impliqués dans la gestion des ressources naturelles et de l'environnement. Considérant le caractère récent de conflits apparemment insolubles, les méthodes traditionnelles de participation utilisées par les organismes pour impliquer le public dans les décisions d'aménagement présentent certes de grosses lacunes. Une démarche de collaboration axée sur l'apprentissage serait une formule de participation du public plus compatible avec le pluralisme.

Cet article présente et compare cinq méthodes de collaboration: Planification transactive, Communautés d'intérêts-prise de décision ouverte , Atelier sur l'organisation de conférences pour la recherche de solutions et la conception participative, Confrontation constructive, et Apprentissage participatif. Il présente également le "Triangle d'avancement" comme cadre d'évaluation du potentiel de collaboration d'une situation conflictuelle donnée sur l'environnement ou les ressources naturelles.

1: Introduction

Speaking to a conference on conflict management and public participation in land management, Sirkka Hautajarvi, Finland's Minister of the Environment, noted that:

Conflicts have always been a part of human life. Without conflicts, there is rarely any progress. It is our task to face, cope with and manage conflicts. Avoiding conflicts by covering up or hiding plans and projects generally leads to greater conflicts in the end. Not only will the economic costs be higher, but citizens will lose faith in the decision-making process, and in the decision-makers themselves. Ultimately, mistrust can destroy the best conflict management. (Hautajarvi, 1997, p. 1)

Consonant with these sentiments, Mike Dombeck, the current Chief of the USDA-Forest Service, has called on his employees to manage America's national forests through "collaborative stewardship." In his message to all Forest Service employees on his first day in office, Dombeck wrote that collaborative stewardship involves a "commitment to healthy ecosystems and working with people on the land." He noted further that:

Most resource issues today are less dependent on technical matters than they are on social and economic factors. If we are to maintain the land's health, we must learn to balance local and national needs. We must learn to better work with the people who use and care about the land while serving their evolving needs. We must be catalysts in bringing people together. (Dombeck, 1997, p.3-4)

Bringing people together, Dombeck explained involves engaging people in dialogue, through such activities as "collaborative councils" that "are made up of a balance of commodity interests, environmental interests, and the general public."

Both Hautojarvi and Dombeck recognize that natural resource management is as much a people-craft as a biological science. The finest grazing plan, the most elegant conservation strategy, the most profitable forestry and rural development projects all risk failure if they are not also grounded in the body politic. Both academics and practitioners increasingly stress the importance of people working together as part of the development of sound policy. This is certainly vital in the natural resource arena. For example, as agencies increasingly embrace ecosystem management as a natural resource management orientation, they must "recognize resource planning as a forum for public deliberation on the shape of a common future... planning needs to combine diverse viewpoints, ranging from perspectives of those who use public lands to views of those whose culture is shaped by the land. (Cortner and Shannon, 1993, p. 16). People can work together and deliberate through collaborative processes. Agency managers, such as foresters, "are realizing that collaborative approaches may be their best and only chance to influence the direction of natural resource policy" (Selin, Schuett and Carr, 1997, p. 25). This paper uses the lens of pluralism to examine the recent interest in community-level collaboration as means to craft natural resource decisions. To achieve this goal, it goes through several steps:

- * Section 2 reviews public participation as it is commonly practiced by natural resource management agencies, and reviews the critiques of those practices;
- * Section 3 provides a very brief introduction into pluralist political thought, particularly as it pertains to traditional public participation methods, collaboration and consensus;
- * Section 4 reviews the fundamental notions of collaboration as a interactional form of joint decision-making; and
- * Section 5 presents five particular techniques for collaboration, contrasts them, and compares them to pluralism.

2: Traditional Public Participation

Public participation is not a new idea; the public voice has been heard in natural resource and environmental decision-making for decades. In countries such as the United States, natural resource management legislation (i.e., the National Environmental Policy Act of 1969, the National Forest Management Act of 1975, and the Federal Land Management and Policy Act of 1976) mandate guidelines for public participation. The methods employed over the years to meet these requirements, while arguably adequate, are insufficient for and inconsistent with the themes of new natural resource management philosophies, such as ecosystem management. Sustainable development will

need to draw upon the best knowledge available from the relevant scientific and stakeholder communities. It will require discourse of a quality appropriate for complex decision-making challenges. Are current public participation methods up to this task, either in the rural development arena or in other environmental policy contexts? A brief examination into the approaches of one federal land management agency, the USDA-Forest Service, toward public participation in conflicts and disputes offers insights into this question.

2.1 The USDA-Forest Service Example

In general, the Forest Service and its publics currently interact through a formal public participation process in which it is assumed that agency makes decisions and the publics can provide comment. The specific legal requirements for public participation in agency decisions come from several sources: the Administrative Procedures Act of 1946, the National Environmental Policy Act of 1969 and the regulations pursuant to it written by the Council on Environmental Quality, the Resources Planning Act of 1974 as amended by the National Forest Management Act of 1976, the Federal Advisory Committee Act of 1972, and numerous legal precedents. No American agency appears to have a more explicit public involvement mandate. Public participation can have major effects on how conflicts over agency decisions evolve, and there are several ways in which these effects might be played out. Ideally, public participation provides a forum whereby the scientific information and values of the publics and the agency can be integrated so that the final decision is viewed as both desirable and feasible by the broadest portion of society. It can make agency decision-making processes transparent, and allow the public and the courts to see the extent to which the agency has taken a hard look at issues. Less well done, public participation can serve to raise expectations that cannot be fulfilled or gloss over fundamental value differences.

Some analysts contend that Forest Service public participation resembles the latter more often than the former. They argue that at best, the Forest Service uses the results of public participation to make marginal changes in decisions; and at worst, that it uses them to sugarcoat decisions that were already made. Employing data from the RARE II process in several states, Mohai (1987) claims that the agency's contention that public comment would be a factor in roadless area allocations lacks statistical support. Drawing upon his personal experiences as an environmental advocate in southern Oregon, Brittel (1991) argues that the Forest Service uses public participation, and indeed its entire NFMA and NEPA planning processes, to rationalize and substantiate decisions that had already been made.

A number of measures are available to evaluate the effectiveness of public participation processes; an obvious one is the number of post-decisional appeals that result. Other things being equal, a public participation program that produces fewer appeals per decision is better, as appeals represent a

measure of discontent with both process and outcome. To the extent that public involvement can alter the outcome of (or win support for) a given project and increase the public's sense that the decision-process was thorough and deliberate, the frequency of appeals should fall.

In recent years, however, the Forest Service decision process has been virtually choked with appeals. The number of appeals has ballooned into the thousands in the late 1980's, and became such a burden that in 1992 the Forest Service suggested a rule change to substantially restrict the number of people with standing to appeal and the types of decisions subject to appeal. In addition to the appeals data, there is more direct evidence of discontent: a recent survey of public participants in national forest planning shows that 43% were "somewhat to very dissatisfied" with the planning process in which they had participated, 55% reported frustration with the Forest Service planning process as a whole, and 72% felt the agency unfairly favored some interests over others (Dixon, 1993). Another review has revealed that public participation on some forest issues did not include the features that the standard public participation literature contends are crucial to success. (Blahna and Yonts-Shepard, 1989).

In sum, if we look at both the number of appeals in recent years and the general tenor of the discourse related to Forest Service management, we find little support for Forest Service decisions among a vocal and powerful segment of society. Consequently, the role that public involvement activities may be playing in creating that discontent, and the extent to which changes in public involvement practices could improve the agency's relationship with a broad range of publics, deserves significant consideration.

2.2 Limitations of Traditional Public Participation

Examining the Forest Service's public involvement efforts reveals several factors that seem to contribute to the current administrative and judicial gridlock. First, as the size and complexity of the natural resource issues increase, the feasibility of a single agency making adequate decisions decreases. The conventional approach has been for the Forest Service to make decisions regarding its lands with modest consultation with other agencies, and for the Bureau of Land Management (BLM), National Park Service, and various state agencies to do likewise. Unfortunately, the analysis of cumulative effects required by NEPA, the judicial requirements for the management of endangered species and the interest in ecosystem-scale management all make the single-agency decision approach increasingly questionable. Even the seemingly straightforward management of big game species, which are owned by the state but commonly winter on private lands and summer on federal lands, seems to defy an agency-by-agency, owner-by-owner paradigm. Traditional public participation (public involvement) is often structured as an internal/external, us-versus-them, zero-sum conflict relationship. In such a context, the strategies of both the agency and the publics are more likely to

become competitive rather than collaborative, when centered on the distributive allocation of a fairly fixed set of resources. It is very difficult in such a situation to develop the incentives for innovative problem-solving that can incorporate and integrate the parties' interests (Wondolleck, 1988). Therefore, any emergent creativity comes in spite of the structure of the public participation, not because of it.

In addition, public participation occurs in a fairly rigid format. Because the agency's public participation activity is largely the result of external mandates, there is a considerable body of legislation, regulation, and case law that collectively defines the adequacy of those efforts (U.S. Congress, Office of Technology Assessment, 1992). The requirements are usually crafted in terms of specific periods for public comment, each with a minimum number of days, a minimum number of local papers in which legal notices must be published, etc. Quite understandably, a common agency response is to comply with those minimums, and not undertake additional or different kinds of public participation, which might risk additional delay or an unforeseen procedural error. Going beyond the letter of the law is not precluded, but there seems to be little incentive for doing so. Public involvement practices are therefore not made as situation-specific as much of the literature suggests would be helpful. Finally, a "Catch-22" comes when agency personnel focus on the appeals/litigation process. Fear of having decisions challenged or overturned creates a defensive stance, where the strategy becomes one of crafting "bulletproof" decisions. Unfortunately, this orientation is often perceived as suspicious and confrontational by interest groups, in turn increasing the likelihood of adversarial relationships and ultimately the very appeals that motivate the Forest Service behavior initially. In other words, an escalatory conflict spiral ensues.

The public participation efforts of the Forest Service are not successfully managing the conflict inherent in land management decisions (USDA Forest Service, 1990; Shannon, 1991). This lack of success may be linked to three factors: aptitude, motivation, and structure. First, Forest Service personnel may be inadequately trained for the difficult task of managing multi-party, multi-issue conflict, even though their knowledge of biological and physical sciences is first-rate. Second, there may not be sufficient motivation to manage the conflict, perhaps because the Forest Service can more readily achieve its goals by appearing to compromise between irreconcilable interest groups (O'Toole, 1988). Third, the complexity of public lands conflict may overwhelm public participation as a conflict management structure.

2.3 The Transnational Experience with Public Participation

Public participation, as described here, is more typically conducted by the natural resource agencies in the industrialized countries of North America and Europe. More localized community-based approaches are more common

elsewhere (Adhikari, 1990; Hunter and Bird, 1997). It may well be that the American experience with public participation provides a relatively extreme example; there may be no other country in which the natural resource agencies have more experience with formal public participation (and simultaneously have experienced such low satisfaction with it). In her comparative study of forestry conflicts in six countries (Finland, France, Germany, Norway, Sweden, and the U.S.), Hellstrom (1996) concluded that the U.S. was characterized by a high level of policy conflict over forestry. But she also found four specific themes of debate that cut across the six countries: forest health, protected areas, forest management and public land management goals; and concluded that conflict over forestry is probably inevitable: A usual argument of foresters as well as environmentalists is that we should concentrate our efforts on finding a commonly agreed set of principles for decision-making related to the use of forest resources. Yet, the examples presented in this paper illustrate how forest conflicts not only originate from policy and decision-making processes, but also from a variety of other sources. For example, there cannot exist value uniformity in society, present day environmental and forest policies are so complex that they usually include some contradiction, policy implementation is rarely perfect, deficiencies exist in the market mechanism's ability to allocate resource uses, and we do not have perfect knowledge of forest resources and ecosystems. (Hellstrom, 1997, p. 285).

This notion -- that conflict is an inherent part of the natural resource arena -- is perhaps unsettling to many technically trained foresters or agriculturalists, who would rather find ways to avoid conflict. But as we shall see below, the acceptance and management of conflict is quite consistent with a pluralist philosophy.

Some countries, Japan (Tsuchiya, 1997) or Turkey (Gumus, 1997) for example, have little or no tradition of formal public participation. Others, such as Finland (Paldanius, 1997; Loikkanen and Wallenius, 1997), Austria (Mayer and Ottitsch, 1997) and Switzerland (Egli, Lietha, and Geiser, 1997), have no universally codified requirement for public participation, but instead apply it on an "as needed" basis. These countries may learn valuable lessons from the American experience, however many of those lessons may be things not to do.

2.4 The Trend in Public Participation Practice

The trend in public participation is toward practices that are more consistent with pluralism. First, one less often hears the notion that public involvement is used to 'educate the public so that they will understand why our proposal is the best thing to do.' Second, attempts are increasingly being made to look for ways to reduce the us-versus-them dynamic and create opportunities for participatory learning. A survey of participation practitioners by the International Association of Public Participation identified the core values of participation (Delli Priscolli, 1997):

- People should have a say in decisions about actions which affect their lives.
- Public participation includes the promise that the public's contribution will influence the decision.
- The public participation process communicates the interests and meets the process needs of all participants.
- The public participation process seeks out and facilitates the involvement of those potentially affected.
- The public participation process involves participants in defining how they participate.
- The public participation process communicates to participants how their input was, or was not, used.
- The public participation process provides participants with the information they need to participate in a meaningful way.

While these core values do not explicitly mention pluralism, they are certainly broadly consistent with it. But there are some unresolved questions about how public participation might be grounded in pluralism. It is on these questions that this paper now focuses.

3: On Pluralism

At its core, pluralism is a philosophical position about values. It can be contrasted with two other philosophical positions - monism and relativism - which are often represented as polar opposites. Monism operates from the premise that there is one and only one reasonable system of values. Relativism, on the other hand, assumes that all values are situational, or contextually defined and socially constructed; in any given situation, therefore, any particular value or value system may take precedence over others. Both monism and relativism have been criticized as not fully satisfactory moral frameworks; the former because it is too dogmatic and cannot easily accommodate a wide variety of cultural preferences, and latter because it provides no evaluative criteria and therefore devolves into intellectual anarchy.

Pluralism recognizes that there are multiple values:

The basic belief that unites pluralists is that good lives require the realization of radically different types of values, both moral and non-moral, and that many of these values are conflicting and cannot be realized together. Living a good life requires the achievement of a coherent ordering of plural and conflicting values, but coherent orderings are themselves plural and conflicting. Thus, just as there is a plurality of conflicting values, so also is there a plurality of conflicting conceptions of a good life comprising these values. The plurality of good lives, therefore, is a plurality twice over: on account of the values it

embodies and on account of the ways in which coherence among the values is achieved. (Kekes, 1993, p. 11)

This passage points out an aspect of pluralism that is often overlooked in the political arena: that is, an individual can experience irresolvable conflict even when operating in social isolation. Kekes' contention is that as individuals, we all face choices between incommensurate and incompatible values (we can only live one of the lives we might have potentially had, we can only spend our time on one thing at a time, etc.). More often pluralism is defined in a way that assumes multiple parties (e.g., Ramirez, 1997), and while that is certainly the case in the political arena, such a definition adds a second level of complexity to plurality which is not a necessary condition to engage pluralism.

Kekes' (1993) six theses of pluralism provide a useful point of departure for a discussion of participatory approaches to natural resource management and sustainable agriculture:

- The plurality and conditionality of values
 - * The unavoidability of conflict
 - * The approach to reasonable conflict resolution
 - * The possibilities of life
 - * The need for limits
 - * The prospects for moral progress

The essence of first two theses has been discussed above, except for any mention of conditionality. Conditionality means that for most values, there are other competing values of similar merit (although potentially of significantly different form). For example, is it more valuable to spend time reading to your grandchildren or to spend time exercising? Clearly both have value, and one's preference ranking can depend on context (perhaps you only see your grandchildren a few days each year, or perhaps you are recovering from illness, and are under doctor's orders to exercise).

The belief that values are more conditional than clearly rank-ordered is one of the defining distinctions between pluralism and monism. Conditionality also means that in any pluralistic situation, there may be a fairly large number of more-or-less useful solutions, and that it is unlikely that there is one that is hugely superior to all others.

The plurality and conditionality of values flows directly into the unavoidability of conflict, and in turn shapes what Kekes refers to as a reasonable conflict management approach:

If the implications of the conditionality of values were more widely understood, an additional consideration would enter into our thinking. This consideration would redirect our attention and help to make the conflicts more

tractable. We would come to see, then, first, that the conflict we are facing is usually not a crisis produced by our adversary's stupidity, wickedness, or perversity but merely another manifestation of the unavoidable conflicts that will continually occur if values are plural, conditional, incommensurate, and incompatible. And we would come to see also that the resolution of any particular conflict involves not merely deciding what ought to be done about the situation at hand, but also considering how resolving the conflict by opting for one value, or for the balancing of one value against another in some compromise, would affect the whole system of values of which the conflicting values are merely a part. (Kekes, 1993, p. 24)

This recognition that much of the potential for conflictual behavior flows from the conflictual nature of the situation echoes much of the prevailing thought among conflict management theoristsⁱⁱⁱ. But it also raises a significant question about the appropriateness of the term "conflict resolution," which is a topic we shall return to later.

The next thesis -- the 'possibilities of life' -- may appear to be only marginally applicable to participatory approaches to natural resource management and rural development, but further reflection shows that it is in fact relevant. A pluralist approach to natural resource management would not apply science until a single right answer emerged (a form of technocratic monism) nor would it acquiesce to the competing political claims by declaring that "whatever the group decides to do is fine" (a relativistic *laissez-faire*). Rather it would look at the competing values as expanding the range of possibilities that we might realize.

We might think of this thesis as expressing the positive vision of pluralism. It holds out the promise of a tradition in which having a plurality of possibilities is recognized as intrinsically valuable. It is a tradition in which that possibility is the ideal. The ideal of course is conditional, not overriding. For particular ways of realizing it are open to criticism, and some of the ways may be justifiably excluded. (Kekes, 1993, p. 28)

This notion that some means can be excluded for consideration segues to the next thesis -- the need for limits. It is on this point that pluralism departs notably from relativism. While the former acknowledges the possibility of standards that exist independent of a particular context, the latter does not. Pluralists recognize that there are some universal truths to human nature that can provide the basis for deep conventions that are the foundation of evaluative criteria. There are also limits to the natural world that define what is possible and what is not in the arena of natural resource management and sustainable agriculture. But we must also note that these natural constraints are also pluralistic; one's notions of limits depend on what features of the nature world one values, or the disciplinary models one constructs. This gives

rise to the possibility (more likely the probability) that there will be competing notions about which issues and thresholds represent constraints.

The prospects for moral progress thesis acknowledges the desire to "take account of the obvious fact that some traditions and conceptions of a good life are better than others because they represent moral progress toward a closer approximation of valued possibilities not just from one particular point of view but for humanity as a whole" (Kekes, 1993, p. 35). It is on this point that pluralism must navigate a slippery slope between relativism and monism. Certainly in order to define moral progress, pluralism must move beyond the non-judgmental inclusiveness of relativism. But by the same token, pluralism must stop short of defining precisely what outcome ought to be preferred over all others. Such a judgment resembles monism much more than pluralism. A more pluralistic response is to argue for institutional arrangements that are as receptive to a plurality of conceptions of a good life as is consistent with the limits needed to maintain the institution. The ideal would be a framework that fosters the realization of plural, conditional, incompatible and incommensurable values; not the advocacy of any particular value. That is a considerably more subtle task than either the reassuring boundedness of monism or the inclusiveness of relativism.

But is pluralism not a self-defeating position because it must take the view that all rivals to itself-absolutism, nihilism, and the rest -- are just as meritorious? By no means! A sensible pluralism will not take such an egalitarian view at all. It will view those rivals as available, as deserving serious attention, perhaps even as plausible and tempting. But it will not -- and need not -- view them as correct, as sensible, or equal in merit with itself. It refuses to be gullible -- to accept anything and everything on its own. It is open-minded, not empty-headed. It is certainly not monolithic and discriminatory in excluding all alternatives from the outset. But it is perfectly prepared to be preferential and discriminating in holding that our superior claims prevail in the final analysis. Its negative view of rivals is not unthinking and dogmatic but rests on a basis of reflection based on rational evaluation. (Rescher, 1993, p. 118)

3.1 The Implications of Pluralism on Participatory Natural Resource Management

Adopting a pluralist orientation has some specific and significant implications about how one thinks about the role for stakeholder participation in decision processes related to natural resource management and sustainable agriculture.

3.1.1 The Inevitability and Irresolvability of Natural Resource Conflict

When applied to natural resource management, the compelling logic in pluralism leads to the conclusion that conflict in this arena is inevitable. That conflict arises because of the plural values (among which there may be

conflict), multiple parties (whose desires can not all simultaneously be met), and limits to the natural world (which sets the bounds to what is feasible). The only ways in which conflict could be eliminated would be to either 1) converge on a single social belief and policy goal toward nature, consumption, population, and sustainability, or 2) find an infinite amount of natural resources so that nothing in nature is limiting. Since neither of these is possible (and doing the first would be a philosophical shift from pluralism to monism), we must find a different cognitive frame from which to operate.

The pluralist orientation regards conflicting choices as a fundamental aspect of life. Our task, therefore, is to learn to function in an environment with multiple perspectives and possibilities, and not attempt to either shirk from or acquiesce to them. But if that is the case, invoking the often-used term "conflict resolution" largely misrepresents the task before us. While specific disputes can be resolved, many natural resource management and rural development situations are characterized by a complex interaction among social, political, cultural, economic and scientific aspects that defies either quick or enduring resolution. The complexity in this arena is such that the conflict may never be resolved, if that term implies that an agreement is reached that puts an end to those incompatibilities that caused the conflict.

Box 1: Conflict Management as Progress

"Management" can be defined as the generation and implementation of tangible improvements in a conflict situation. Improvements in the ways parties manage a conflict situation constitute progress. Therefore, conflict management can be thought of as "making progress." As part of improving the situation, progress can include such ideas as developing mutual gains, learning, resolving a dispute, achieving agreement, and laying a foundation for future negotiations. Progress is a way of thinking about a conflict situation that recognizes that conflicts are inevitable and ongoing, and that the competent management of those conflicts comes from continual improvements in areas of substance, procedure, and relationships. Constructive conflict management, then, involves making progress on these three fundamental dimensions of a conflict situation: substantive, procedural, and relationship. These dimensions can be viewed as part of a conflict management "progress triangle," as presented in Figure 1.

Figure 1: The Progress Triangle

Substance

Procedure Relationship The more appropriate task from a pluralist perspective, then, is to manage conflict situations rather than to attempt to resolve them. Indeed, many complex natural resource situations can be managed well, so those specific disputes that arise within them do not become destructive. Consequently, the term "conflict management" is more consistent with pluralism than is the more common "conflict resolution". Furthermore, a conflict management paradigm accommodates the view of situation improvement as a appropriate metric of success; that is, desirable and feasible

changes that can be made in any problematic situation in order to improve that situation.

3.1.2 The Applicability of Consensus

If one adopts a fairly traditional definition of consensus, i.e., group solidarity in belief and evaluation, then consensus can be a very problematic notion in a pluralist model. First, it is very likely that it is not possible, given plural values. Second, it may also not be a particularly desirable goal, given the emphasis on creating institutions that can embrace and accommodate plural viewpoints. And third, it is not a prerequisite to making progress on vexing problems in natural resource management and sustainable agriculture. Rescher critiques consensus from a pluralist perspective:

The fact is that we live in an imperfect world. The resources at our disposal are limited -- our own intellectual resources included. We have to be prepared for the fact that a consensus among people, be it global or local in scope, international or familial, is in general unattainable. In a world of pervasive disagreement we must take recourse to damage control. We must learn to live with dissensus -- with pluralism in matters of opinion. And we must and can bring to realization frameworks of social inclination that make collaboration possible despite diversity and that facilitate co-operation in the face of dissensus. In the setting of issues regarding social interaction, dissensus tolerance should prove positive and constructive. In the setting of issues regarding knowledge and inquiry it can, properly configured, lay the basis for a contextualistic rationalism intermediate between dogmatic absolutism on the one hand and relativistic nihilism on the other. (Rescher, 1993, p. 4, emphasis in the original)

The reason why Rescher (1993) contends that consensus is probably not possible in a pluralistic world mirrors those sentiments of Kekes' presented earlier; namely, that the structure of our choices is such that there are few obviously superior approaches to complex situations because they involve competing, yet incommensurate, values.

In terms of the desirability of consensus outcomes, Rescher reiterates Habermas' distinction between de facto consensus and rational consensus. De facto consensus occurs fortuitously or spontaneously as a result of the group interaction. These are, of course, useful moments because they both provide clear direction for the group's efforts and can increase group cohesiveness as the participants recognize that there are issues that unite them. Rational consensus is the result of explicit institutional design, or the product of norms that either emphasize conformity or discourage dissensus. It is this latter form of consensus that flies in the face of pluralist thinking because it either presumes monism or employs some form of pressure either logical or social that quiets competing viewpoints:

Box 2: The Relationship Dimension of Conflict Management

While policy conflicts are overtly about substantive matters, progress on them often hinges on the quality of the relationships that exist among the conflict parties. Consequently, although assessment can begin at any one of the three triangle dimensions, in many cases examining relationship factors first may be insightful. The relationship dimension includes the parties in the conflict and their history with one another. It also includes the "intangibles" of any conflict situation, such as trust, respect, and legitimacy.

The following questions may help in the assessment of the relationship dimension of a policy conflict:

- Who are the parties/stakeholders? Are they primary or secondary?
- Do any parties have unique status (e.g., Indian tribes)?
- What are the parties' stated positions, interests (concerns, fears, goals), world views and values?
- What are the parties' relational histories?
- What are the parties' BATNAs? What are their incentives to collaborate, compete, and learn?
- Is trust sufficient? Can it be built?
- Can representatives/individuals work together? Do they have the skills needed to communicate constructively and work through disagreements?

In various respects consensus is doubtless a good thing. The impetus to consensus unquestionably resonates to the human predicament: it reflects our penchant for conformity and our deep-rooted inclination to accept what others do, so as to achieve the comforts of solidarity and companionship. Moreover consensus can, in some conditions, provide us with the reassurance of being on the right track. But be this as it may, consensus is not something on which we should insist so strongly as to make it a pervasive imperative for current concern. A universal consensus fixed upon 'the truth of the matter' or the optimal course of action' is not a practical goal but merely a hopeful aspiration. It is one of those things the achievement of which we would doubtless welcome but the actual) pursuit of which as a practical goal makes no real sense. (Rescher, 1993, p. 43)

Finally, Rescher argues that consensus is not an imperative; that is, rational minds can come to differing conclusions:

But must genuinely rational minds not ultimately reach agreement on meaningful issues? Does not the fact that rationality is inherently universalistic in its bearing -- is objective and impersonal in its orientation -- mean that rational people 'have to' attain a consensus, so that rationality remains absent where disagreement prevails? Not necessarily! For while in characterizing a resolution as rational we are indeed staking a claim that is universal in its substantive bearing and intent, it is nevertheless perfectly conceivable that

there might not actually be a universal consensus about the matter. (Rescher, 1993, p. 8)

When applied to natural resource management and rural development issues, Kekes' and Rescher's ideas generate a provocative challenge. It will be a hugely complex task to craft institutions and processes that are as pragmatic and tolerant as pluralism would apparently demand. The demand for pragmatism comes from the need to have effective public policy -- there is much work to be done, so let us get at it. We can ill afford to hold pressing policy decisions in abeyance as we immerse ourselves in long-winded or self-indulgent pluralist discourse. The tolerance that pluralism demands will in turn demand a large measure of civility and maturity from the participants.

Many people will be challenged as they attempt to function effectively in processes that require them to 1) interact with people with differing worldviews, 2) articulate their values and goals persuasively, but not defensively, 3) craft solutions that represent quality public policy, and 4) be sensitive to the impact of the decision on groups who will be negatively impacted by it, or who were advocating for an alternative outcome. Few of us have much experience in processes that make these demands. In fact, in many countries, the more common models of policy formation are far more combative and confrontational than a pluralist approach would advise. So making progress in pluralist management of natural resource issues is not merely an issue of learning new skills -- some old attitudes and assumptions will need to be 'un-learned' as well.

4: The Role for Collaborative Approaches

Collaboration is a process in which interdependent parties work together to affect the future of an issue of shared interests (Gray, 1989). More specifically, Gray (1985, p. 912) defines collaboration as "the pooling of appreciations and/or tangible concerns, e.g, information, money, labor, etc., by two or more stakeholders to solve a set of problems which neither can solve individually." Drawing upon Gray's ideas, Selin and Chavez (1995, p. 190) assert that "collaboration implies a joint decision making approach to problem resolution where power is shared, and stakeholders take collective responsibility for their actions and subsequent outcomes from those actions." In collaborative conflict management and decision-making activities, people have meaningful opportunities for "voice," that is, to communicate as participants in significant ways. Their ideas and interactions matter in both the process and outcome of the situation.

As an agency interacts with citizens and stakeholder groups (its publics), collaboration differs considerably from the traditional public participation model. There are seven significant aspects to these differences:

- (1) It is less competitive and more accepting of additional parties in the process because they are viewed as potential contributors more than as potential competitors.
- (2) It is based on joint learning and fact finding; information is not used in a competitively strategic manner.
- (3) It allows underlying value differences to be explored, and there is the potential for joint values to emerge.
- (4) It resembles principled negotiation, since the focus is on interests rather than positions.
- (5) It allocates the responsibility for implementation across as many participants in the process as the situation warrants.
- (6) Its conclusions are generated by participants through an interactive, iterative and reflexive process, and are consequently less deterministic and linear.
- (7) It is an on-going process; the participants do not just meet once to discuss a difference and then disperse. However, collaborations may have a limited life span if the issues that brought the participants together are resolved.

Box 3: The Procedural Dimension of Conflict Management

Those elements that pertain to the ways in which conflicts are managed and decisions made are crucial consideration in management of value-laden or potentially controversially situations. They include the rules, both regulative and generative, that parties adhere to in working through the conflict situation. Just as progress on the substance of a conflict relies in part on relationship factors, so too does it depend on procedures parties regard as appropriate and fair.

The following questions can guide assessment of the procedure dimension:

- At what stage is the conflict? Does the situation seem "ripe" for constructive action?
- What are the legal constraints? Who has jurisdiction?
- What management approaches have been used in the past (procedural history)?
- Is mutual learning desired?
- What is the decision space? How much can be shared with other parties? Are key supervisors supportive?
- Are resources sufficient (e.g., time, money, staff)?
- What are the procedural alternatives? How accessible are they? How inclusive?
- Are there needs for design and facilitation by an impartial party?

These distinctions between collaboration and traditional public participation can be encapsulated into two philosophical differences. First, a natural

resource or environmental management agency cannot adequately address the issues at hand by working independently.

There may be a number of additional resources which other stakeholders could bring to the process: different perspectives on both the problem at hand and potential solutions, understanding of rapidly changing social values, scientific data, indigenous knowledge, political clout, agreement and coordination of other agencies and private land owners, finances, volunteer labor, and so on. For example, since the focus of land management is changing from specific resources (stands of trees, herds of big game, grazing acreage) to ecosystems, collaboration appears better suited to planning and implementation tasks than traditional public involvement. Collaboration arranges the relationships between the stakeholders in a manner that more closely matches the resources and responsibilities that each brings to the process. Just as rural development and sustainable agriculture emphasize "system" relationships in the natural world, collaborative processes can illuminate "system" relationships in the social world. While both collaboration and pluralism value cooperation, public involvement has evolved to emphasize competition. While there has been no a priori reason for public involvement to develop along a competitive orientation, it nonetheless has. Public involvement policy is firmly embedded in the adversarial comment/appeal/litigate/legislate/ regulates mentality that characterizes much of the politics of natural resource management and sustainable agriculture. A call for collaboration is not a starry-eyed proposal that ignores the potential for venom and rancor; rather it raises the possibility that energy currently devoted to competitive behaviors can, in some instances, be channeled into developing new approaches to natural resource management and environmental policy.

Collaboration does not demand that participants set their self-interest aside, nor does the success of collaboration hinge on their doing so. Quite the contrary: participants are expected to clearly voice their interests and energetically work to achieve them. The key is that their efforts are oriented not in opposition to those of their fellow participants, but in concert. An environment needs to be created in which exploring differences is encouraged rather than hindered. To the extent that differences are not openly addressed, they may fester below the surface and become the impetus for discontent with process and dissatisfaction with the results.

There are two keys to shifting the relationships in natural resource management and rural development away from competition and toward collaboration: correctly select those situations where collaboration is an appropriate strategy and structure the process to encourage and reward cooperation rather than competition. Not all situations are amenable to collaboration. The complexity of natural resource conflict implies that there are many reasons in any given setting why expecting collaborative behaviors to emerge may be unrealistic. Some scholarship indicates that collaboration may

be successful in the minority of cases (Amy, 1987; Buckle and Thomas-Buckle, 1986).

It is also unrealistic to merely announce that collaboration is beginning, and expect the current relationships and patterns of behavior to change. Collaboration requires innovative kinds of decision-building structures that will have to be designed with considerable attention to the incentives they create. If they do not establish clear rewards for collaboration and disincentives for competition, there is no reason to expect much change.

5: Methods for Collaboration in Natural Resource Management

As citizen groups and agencies embrace pluralism as a philosophy for addressing environmental and natural resource management situations, they may seek frameworks and methods that feature collaborative involvement. Many U.S. organizations (e.g., Concur of Berkeley, California; CDR Associates of Boulder, Colorado; Confluence of Portland, Oregon;

Resolve of Washington, D. C.; Triangle Associates of Seattle, Washington; Western Network of Santa Fe, New Mexico) offer consulting services that include collaborative methods. Many community-level groups in the U.S. (e.g., the Applegate Partnership of southern Oregon, the Willapa Bay Alliance of southwest Washington, the Catron County Citizens Group of western New Mexico, the Ponderosa Pine Partnership of southwest Colorado, and the Malpai Borderlands Group of southwestern New Mexico and southeast Arizona) and groups organized around watersheds (e.g, the McKenzie Watershed Council in western Oregon and the Kenai Watershed Council of the Kenai Peninsula, Alaska) employ collaborative methods in different forms to varying degrees.

What specific methods these organizations promote or employ is not clear, principally because they have not disseminated information about their processes nor have they been studied by "collaboration" researchers. Both dissemination and research should help provide people and organizations with more "tools" for collaboration, so they can better develop methods appropriate to their tasks at hand. Toward this end, the next section of this paper summarizes five methods for collaboration in environmental conflict situations. These methods were selected based on two criteria: each had been published in accessible outlets and had been applied to natural resource management collaborations at the site specific/community level.

5.1. Transactive Planning

In his most recent work, John Friedmann, the developer of Transactive Planning, writes, "centering projects in localities and regions requires mutual learning, patient listening, and a tolerance for contrary views." Effective planning needs direct community involvement and thinking "of the project as

involving a process of social learning, with frequent assessments of what has been accomplished and what has gone wrong, and a willingness to make appropriate adjustments in the course of the implementation process itself" (Friedmann, 1992; p. 160). These elements lie at the heart of Transactive Planning.

Friedmann designed Transactive Planning to provide "a way to join scientific and technical intelligence with personal knowledge at the critical points for social intervention" (Friedmann, 1973; p. 190). It is a far more client-driven process than traditional expert-driven planning had been, placing more value on the informal knowledge of the citizenry, particularly at the problem definition stage. Transactive planning "integrates processes of mutual learning with an organized capacity and willingness to act" (ibid.; p. 195). Its goals include fostering innovation and "changing knowledge into action through an unbroken sequence of interpersonal relations" (ibid.; p. 171). Transactive Planning incorporates aspects of traditional planning, including typical planning stages such as describing the present situation, analyzing that situation, devising an appropriate planning strategy, assessing feasibility, and so on. Transactive Planning differs from traditional planning, though, in its emphasis on communication, mutual learning, and transformation. Transactive Planning's most notable natural resource application has been in management plan development for the Bob Marshall Wilderness in Montana (Ashor, McCool and Stokes, 1986; Moore, 1994).

Box 4: The Substantive Dimension of Conflict Management

The third dimension of the Progress Triangle features the substance of the conflict situation. Substantive items are the "tangible" aspects of a conflict, such as the issues about which the disputants negotiate. Substance, though, also includes issues that parties may consider "symbolic," such as "righting a past wrong." The following set of questions offers a framework for assessing substance:

- * What are the issues? Are they tangible and/or symbolic?
- * What are the likely sources of tension over these issues (e.g., facts, culture, history, jurisdiction, values, interests, people)?
- * Are issues complex? technical?
- * Is information needed? Is it available?
- * Are meanings, interpretations, and understandings quite varied?
- * Are learning opportunities available?
- * What are the mutual gain options (opportunities for mutually beneficial improvements)?

5.1.1 Two Levels of Communication

Traditional planning approaches, Friedmann contends, fail to communicate

effectively with the people whom planners are supposed to serve. Although planners and clients may exchange messages, relevant meanings are not communicated well. The answer, Friedmann believes, "is not simply a matter of translating the abstract and highly symbolic language of the planner into the simpler and more experience-related vocabulary of the client." Rather, "the real solution involves a restructuring of the basic relationship between the planner and client" (Friedmann, 1973; p. 172).

In Transactive Planning, two levels of communication are essential. First, there is subject-matter-related communication. This is communication concerned with the issues of the planning situation. The second and more critical level Friedmann calls "dialogue," which refers to the interpersonal components of the planning process that determine if the participants feel respected and build trust with one another; i.e., open, authentic communication. "Dialogue requires interpersonal skills," Friedmann clarifies, "such as the art of listening, the ability to trust others and make oneself vulnerable to them, a willingness to suspend rank and material power, and a responsiveness to others' needs" (Friedman, 1987; p. 187).

5.1.2 Mutual Learning

Transactive planning, Friedmann points out, "is carried out on the ground swell of dialogue" (Friedmann, 1973; p. 182). Genuine dialogue helps people learn quickly from complex, new situations. Planners are successful professionally to the extent that they can draw upon their analytical skills and are "rapid learners". Planners, therefore, are very good at dealing with scientific and technical knowledge.

Planners, though, have not dealt well with local or client knowledge, that is, knowledge drawn from experience. Doing so can generate new options for change.

in mutual learning, planner and client each learn from the other--the planner from the client's personal knowledge, the client from the planner's technical expertise. In this process, the knowledge of both undergoes a major change. A common image of the situation evolves through dialogue; a new understanding of the possibilities for change is discovered. (Friedmann, 1973; p. 185)

Planners, for example, must learn to share control where possible, to yield as well as persuade. Clients must respect the knowledge of planners, and work with planners to negotiate common meanings. Such learning occurs through dialogue.

5.1.3 Transformation

Friedmann recognizes that Transactive Planning and the change it directs occur

within a system. Any system obeys its own laws of internal change. He observes that "to change a process means to act upon the sources that generate the lawful behavior of the system." Both planner and client, Friedmann notes, "must respect the laws of transformation and be mindful of their limited abilities to control the follow of events" (ibid.; p. 186).

Learning and respect are essential to transforming a system. Learning cannot be imposed; parties need to respect the processes and styles by which people learn. Parties involved in mutual learning will not succeed by destroying or discrediting the world views of others. According to Friedmann, in any given problem situation, planners contribute concepts, theories, analyses, processed knowledge, and new procedures. Clients contribute an intimate knowledge of context, realistic alternatives, norms, priorities, feasibility judgments, and operational details. (ibid.; p. 187).

5.2 Communities of Interest and Open Decision Making

Writing in the *Journal of Forestry*, Jeff Sirmon, William Shands, and Chris Leggitt contend that, to counter adversarial battles in forest conflicts, "we need to find new ways to get people to talk to one another about what they really want from the forests, and find effective ways to engage them in civil dialogue and mutual education about their needs and values" (1993; p. 17). They propose a way: the "communities of interests and open decisionmaking (sic)" model (CI-OD).

5.2.1 Communities of Interests

Sirmon and his colleagues (1993) draw the "communities of interests" concept from the work of Harvard University professor Ronald Heifitz. "In a community of interests, says Heifitz, responsibility for problemsolving (sic) falls not on a single leader but on a group. In confronting difficult policy issues, people must struggle with 'their orientation, values, and potential tradeoffs . . . only the group -- the relevant community of interests -- can do this work" (p. 19, citing Heifitz and Sinder, 1988, p. 187). In a community of interests, both power and leadership are shared. Leadership is key to the effectiveness of this approach. "Leadership must emerge from the communities of interest - communities that must discover ways of working effectively with each other" (Sirmon, 1995; p. 178).

This idea of shared leadership holds implications for the natural resource agency manager. Rather than serving simply as the convener of a collaborative process, Sirmon (1995; p. 179) asserts that the manager "must also be an effective intervenor and actively participate in dialogue and interchange with the communities . . . [she or he] "will also be an educator, a provider of data, a developer of viable alternatives, an interpreter of laws and regulations, and a representative of those not able to participate in dialogue and intercommunity

transactions." The natural resource manager must also facilitate an equitable process. "The key to success," Sirmon and his colleagues explain, "is to keep participants focused on resolving issues. Leaders from every interest must be given the opportunity to argue their points of view and be willing to respect those who disagree. Resolution takes time and requires patience" (Sirmon, Shands and Liggett, 1993, p. 19).

5.2.2 Open Decision-making

The "open decisionmaking" component of the CI-OD model stems from a 1990 report on national forest planning prepared by a research team from the Conservation Foundation and Purdue University. The report (Shands, Sample and LeMaster, 1990) concluded that the traditional public involvement method (public hearings, scoping, comment letters) was too formal and rigid. The report recommended a process of "open decisionmaking" in which the Forest Service and contending interests would work together. According to Sirmon et al. (1990; p. 20), the report included four guidelines for joint problem solving in "open decisionmaking":

- * Encourage a frank exchange of views among all interests, especially before views harden.
- * Encourage the sharing of information.
- * Help identify opportunities for joint problem solving.
- * Make it clear how a decision was reached.

Sirmon, Shands, and Liggett (1993; p. 20) explain that communities of interests establish "the working environment for open decisionmaking. Both feature leadership that is shared and distributed among participants, free and open communication and mutual education, and a transparent decisionmaking process." Sirmon and his colleagues (1993) provide a number of forest management examples where CI-OD principles have been at work, including fire recovery planning on the Siskiyou National Forest in Oregon, travel and access management planning on the Huron-Manistee National Forest in Michigan, and forest plan revision on the Targhee National Forest in Idaho. Critical to these processes is the sharing of information (including technological data, such as GIS), opportunities for debate, and a willingness to compromise.

5.3 Search Conferencing and the Participative Design Workshop

In a fashion similar to Communities of Interest and Open Decision making, the Search Conferencing and Participative Design Workshop (SC-PDW) method is a two stage process. Developed by Joel Diemer and Rossana Alvarez, as a combination of two techniques, SC-PDW is presented as an adaptive social process that can respond to value conflicts in constructive ways (1995, p. 10-11). Neither search conferencing nor participative design as techniques are new (Diemer and Alvarez, 1995; see also Emery, 1982; Gray, 1989), but Diemer and

Alvarez see their combination as a public participation innovation compatible with ecosystem management and sustainable forestry.

5.3.1 Search Conferencing

Diemer and Alvarez (1995) note that the search conferencing idea evolved from strategic planning and small group work done in the 1960s at London's Tavistock Institute of Human Relations. The method was subsequently taken to Australia by Fred and Merrelyn Emery where it was applied over three hundred times in the 1970s. It has also been used extensively in Canada (Trist and Murray, 1993). The SC process starts, Diemer and Alvarez (1993; p. 12-13) explain, "begins when people within the system recognize a need." These people, presumably some management organization or agency, then undertakes a lengthy planning process that involves, first, selection of participants. Using a "community referencing system," a planning team prepares a "social map" of the relevant community and criteria for selecting search conference participants. Second, the planning team determines the research needs of the search conference group.

Search conferencing is designed to generate a "planning community" in three phases. First, SC participants brainstorm significant events, both globally and locally. This is typically done in response to specific questions, such as "what do we want the world to be?" Second, participants examine their particular system (organization, community, issue) and generate a "communal history." They critique their "system" and determine its most desirable future. Third, parties "integrate the information compiled during phases 1 and 2." They identify "desirable and achievable futures" and detailed action plans for reaching their goals.

5.3.2 Participative Design Workshop

After the search conference has produced a strategic plan, community members work together in a PDW to learn about "organizational design principles" necessary to organize for the long term. This occurs via three "briefings": Briefing 1 introduces the concept of "bureaucracy." Brief 2 features the second design principle, "participatory democracy." The final briefing emphasizes tasks the group needs to pursue in order to match the design principles to the earlier generated strategic plan. As in the case of Search Conferencing, Diemer and Alvarez base many of their PDW ideas on the work of Emery (1993).

Diemer and Alvarez emphasize that SC and PDW need to occur consecutively and will likely require thirty to forty hours of group interaction. They see the search conference providing "adaptive relations between system and environment," with the PDW contributing the organizational knowledge needed to sustain the adaptive strategic plan. SC-PDW has been applied on a number of

projects, including planning and community relations in the Chequamegon and Nicollet National Forests in northern Wisconsin.

5.4 Constructive Confrontation

Puzzled by the question of how to better address . . . resolution-resistant [public policy] conflicts, Heidi and Guy Burgess (1996; p. 306) write, "we and several colleagues at the University of Colorado's Conflict Research Consortium have undertaken a research program devoted to finding more constructive ways of 'handling' (from a third party point of view) or 'confronting' (from a disputants' perspective) highly intractable conflicts." As part of this research program, Burgess and Burgess have posed the question, "How can one confront a particular conflict more constructively?" Drawing upon data from a variety of sources (e.g., interviews, case studies), Burgess and Burgess have developed a framework, "constructive confrontation" (CC). They consider this process potentially "transformative," with the potential for empowerment and recognition in the public conflict arena equivalent to Bush and Folger's (1984) work in community conflict. CC has been applied to a number of projects in the Rocky Mountain region.

5.4.1 Conflict and health

Constructive Confrontation views conflict and its management in terms of a health care metaphor. The CC approach "follows a medical model," Burgess and Burgess (1996; p. 307) report, "in which destructive conflict processes are likened to diseases -- pathological processes that adversely affect people, organizations, and societies as a whole." As in medicine, Burgess and Burgess explain, CC utilizes an incremental approach. "Constructive confrontation alerts parties and intermediaries to pitfalls to be avoided, pathologies to be corrected, and opportunities to be exploited," without specifying a specific agenda or end result (ibid.; p. 308).

5.4.2 Constructive Confrontation Steps

Constructive Confrontation consists of three general steps: diagnosis, treatment, and monitoring. Diagnosis starts with the development of a conflict map. This map "should identify active and potential adversary groups and intermediaries, along with their interests and positions" (ibid.). This step follows the interest-based dispute resolution model popularized by Fisher and Ury (1991). Diagnosis next tries to differentiate core aspects of the conflict from "conflict overlays."

"Overlays are extraneous problems in the conflict process that get 'laid over' the core, making the core issues harder to see and address." Examples include misunderstandings, escalation and polarization behavior, fact-finding, procedural, and framing problems (Burgess and Burgess, 1996; p. 308).

Diagnosis considers the extent to which the conflict seems intractable. In doing so, diagnosis "needs to include an analysis of the power strategies available to the parties." Examples of power "pathologies" are "inadequate identification of strategic options, misjudgments of the costs and benefits of alternative strategies, overlooking ripe moments, and fighting to the bitter end" (ibid.; p. 314).

Treatment follows conflict diagnosis. According to Burgess and Burgess (1996; p. 309), treatment involves "the identification and implementation of realistic, incremental steps for reducing as many of the overlay problems as possible." Some treatment actions are relatively easy and can be implemented by the parties themselves. Other actions "require either the acquisition of new skills (for example, active listening), outside assistance from conflict professionals (facilitation, transformative mediation, or structured dialogues, perhaps), or the making of hard choices for which there are no clear answers (deciding whether to pursue a short-term victory even though it is likely to provoke a damaging, long-term backlash, for example)."

Monitoring comprises Constructive Confrontation's third step. As Burgess and Burgess (ibid.) explain, "once specific options are selected and implemented, results should be monitored and adjustments made as the conflict continues and changes over time." Burgess and Burgess emphasize that constructive confrontation is different than problem-solving, which "has a clear beginning, middle, and end." In contrast, constructive confrontation is "an ongoing process that can be continued--if the parties make the effort--as long as the conflict lasts."

5.5 Collaborative Learning

Collaborative Learning (CL) is a framework for public policy conflict management and decision making. Its specific applications to date have been in the natural resource arena. Its methods and techniques are designed for situations with the following features: (1) multiple parties and issues, (2) deeply held values and cultural differences, (3) scientific and technical uncertainty, and (4) legal and jurisdictional constraints.

5.5.1 Collaborative Learning Foundations

Collaborative Learning is a hybrid of soft systems methodology (SSM), alternative dispute resolution (ADR), integrated through ideas from adult and experiential learning theory. It encourages systems thinking, joint learning, open communication, and focuses on appropriate change.

Collaborative Learning draws on ADR to address values and strategic behaviors. Mediation, the intervention of an impartial third party into a dispute, deals well with significant value differences. "Value disputes," Moore (1988; p. 256) observes, "are extremely difficult to resolve where there is no consensus on

appropriate behavior or ultimate goals." Yet mediators, via identification and re-framing methods, can address value conflict. Specific techniques include (1) transforming value disputes into interest disputes, (2) identifying superordinate goals (both short and long term), and (3) avoidance (ibid.; p. 178; see also Gray, 1989). Collaborative Learning deals with parties' strategic behaviors by incorporating methods designed to promote collaborative, integrative negotiation. CL encourages parties to identify and assess innovative approaches for settling their differences, including logrolling, bridging, non-specific compensation, etc. (Lewicki et al., 1994). CL facilitators, like mediators, often use transformative strategies that encourage parties to engage in role reversal, mirroring, and future orientation.

Still, the initial basis for Collaborative Learning design resides in "soft systems methodology" (SSM). Soft systems are an application of theoretical work in systems and experiential learning (Wilson and Morren, 1990). Soft systems brings to natural resource disputes an emphasis on learning, an area alternative dispute resolution methods, including mediation, typically disregard or consider peripheral to the settlement task. As Flood and Jackson (1991; p. 177-178) observe, SSM "is doubly systemic since it promotes a systemic learning process, orchestrating different appreciations of the situation, which is never-ending, and it also introduces systems models as part of that learning process. The systemic learning process aims to create a temporarily shared culture in which conflicts can be accommodated so that action can be taken" Figure 2 highlights the emphases of SSM and ADR that are integrated in Collaborative Learning.

Collaborative Learning stresses learning about and understanding a situation prior to developing improvements in that situation. For example, as a National Forest revises its management plan, CL could be useful both in the internal functioning of Forest and District-level interdisciplinary planning (ID) teams as they try to develop an ecosystem-based perspective to their activities. It could also be a useful vehicle for communicating with and learning from the Forest's various publics/stakeholders. In summary, the key notions that define Collaborative Learning are:

- Re-defining the task away from solving a problem to one of improving a situation.
- Viewing the situation as a set of interrelated systems.
- Defining improvement as desirable and feasible change.
- Recognizing that considerable learning--about science, issues, and value differences--will have to occur before implementable improvements are possible.
- Promotes working through the issues and perspectives of a situation.

Figure 2: Collaborative Learning as a Hybrid

ELEMENTS	Soft System Methodology	Alternative Dispute Resolution
Promotes Learning	High	Low
Emphasizes Systems Thinking	High	Low
Deals with Value Differences	Low	High
Handles Strategic Behaviors	Low	High

5.5.2 Collaborative Learning in Action

A natural resource management organization may use Collaborative Learning principles in various ways, such as (1) in internal ID teams for pre-decisional alternative development and analysis, (2) partnership development where joint implementation is needed (important in many situations, given increased emphasis on interagency - organization approaches), and (3) in public involvement, including activities pursuant to NEPA.

No matter what the context for its use, Collaborative Learning offers a set of principles and techniques that must be customized to meet the needs of the situation at hand. There is no "CL cookbook". If CL is going to reach its potential, natural resource management personnel (and in some cases, stakeholders) need to be involved in decisions about how CL should be applied. This is not a technique where outsiders come in to either take the problem over, or in any way tell natural resource managers that what they have been doing is wrong. Rather, CL offers some ideas and techniques that can help a management agency/organization and its publics to organize their thinking using some systems notions that are new to many of the people we work with.

It will be up to each agency to figure out how best to use them. A goal in bringing CL to an area or situation is to allow everyone to learn more from the process of developing policy decisions and programs than might otherwise occur.

The first stages of CL emphasize dialogue through which parties develop common understanding of the situation. Activities might include information exchange, imagining best and worst possible futures, and visual representations of the situation, perhaps through the use of "situation/systems" maps. In middle stages, CL participants focus on concerns and interests, and how their concerns relate to others'. Out of these concerns, CL parties identify possible changes that could be made: "situation improvements." In latter stages, which shift communication interaction from dialogue to deliberation, the participants debate these improvements. Participants deliberate whether or not the

improvements represent desirable and feasible changes in the present situation, and move into implementation.

CL has been developed to be responsive to diverse cultures and communities. Visualization tasks (e.g., mapping, rich pictures), variable group interaction (e.g., 2-4-8), systems work (e.g., mapping, matrix development), and communication guidelines are designed to respect the various ways in which people prefer to participate, learn, and share knowledge.

5.5.3 Collaborative Learning Outcomes

Collaborative Learning presumes that situations are dynamic, systemic, and changing. It is a framework designed to deal with dynamically complex systems, as opposed to detail complexity (Senge, 1990). Data from a variety of applications such as the Oregon Dunes National Recreation Area (Daniels and Walker, 1996) and the Wenatchee National Forest (Daniels et. al., 1996; Blatner, Walker, and Carroll, 1997) indicate that CL can be adapted to a particular situation to generate (1) dialogue between diverse communities: scientific, public, administrative; (2) improved understanding of the specific problem situation; (3) integration of scientific and public knowledge about the problem situation; (4) increased rapport, respect, and trust among participants; (5) clearly articulated systems-based concerns about the problem situation; and (6) tangible improvements in the problem situation.

6: Comparing Collaboration Approaches

The previous section has presented a summary description of five methods for collaborative public participation in environmental conflict and decision making situations. Other methods exist that encourage collaboration, such as the "mutual gains approach" (Susskind and Field, 1996), area-wide collaborative planning (Salvesen and Porter, 1995), habitat conservation planning (Beatley, 1995), and policy dialogues (Gray, 1989). The selection of an appropriate approach and its specific adaptation should be based on the features of the particular method and its "fit" with the collaborative potential of the conflict situation.

6.1 Similarities

The five collaborative approaches presented here have a number of similarities as well as some noticeable differences. All five approaches feature:

- A multi-stage process.
- Constructive, open, civil communication, generally as "dialogue."
- A focus on the future.
- An emphasis on learning.
- Some degree of power-sharing and "leveling of the playing field."

These characteristics are consistent with the underlying notions of pluralism. Three features in particular -- dialogue, learning and power-sharing -- would seem to be essential elements of any pluralistic process. Although not explicitly stated in their published descriptions, all five collaborative approaches appear responsive to the value of diversity of participants, ideas, and worldviews.

6.2 Distinctions

The five approaches differ to varying degrees in other areas:

- Collaborative Learning (CL), Transactive Planning (TP), and Search Conferencing/ Participatory Design Workshop (SC-PDW) incorporate a systems perspective, with CL doing so more comprehensively.
- Communities of Interests/Open Decision-making (CI-OD) and CL both incorporate constructive argument into the collaborative process.
- Constructive Confrontation (CC) and TP are explicitly transformative, that is, they intend to change the parties and/or the situation.
- The methods utilize different conflict frames: CI-OD, CC, and SC-PDW attempt to "resolve the conflict" while CL seeks to "manage the conflict" through "improvement in the situation."
- The methods employ different metaphors: CC emphasizes "health" and "medicine," CI-OD "community," SC-PDW "bureaucracy," and TP and CL "systems." CC and CL employ visual "conflict" or "situation" maps.
- Participation in SC-PDW seems limited, while the other methods seem more accessible and inclusive.
- CL includes iterative small group interaction as well as large group tasks.

Focusing on distinctions among the five approaches reveals the extent to which they embrace the tenets of pluralism. The approaches that seek "resolution" as a primary goal (CI-OD, CC, and SC-PDW) are tacitly or explicitly seeking consensus. Doing so may mitigate Kekes' assumption of plural, conditional, incompatible, and incommensurate values that Kekes regards as critical to pluralistic forums. Methods that emphasize "resolution" or "solution" may, intentionally or unintentionally, reduce the plural nature in the situation and "solve" the differences in opinion. Furthermore, if "resolution" becomes the primary measure of a "collaborative" method's success, "groupthink" norms may emerge that discourage disagreement and skepticism and pressure parties to reach agreement (Janis, 1982).

The issue of transformation may seem particularly perplexing to the values of pluralism. The methods that attempt "transformation" (CC and TP) risk imposing an ideology of change on participants. Such a change ideology implies a judgment that parties need to become "enlightened," or are not engaging the situation and one another adequately. These two methods, however, appear to approach transformation quite differently. Constructive Confrontation, for example, features "empowerment" and "recognition," drawing these elements

from "transformative mediation" (Bush and Folger, 1994; p. 12). Transformative mediation encourages disputing parties to change "themselves for the better, as human beings." Bush and Folger explain, "Transformative mediation is successful when the parties experience growth in both dimensions of moral development . . . developing both the capacity for strength of self and the capacity for relating to others" (ibid.; p. 84). Defining transformation as moral development presumes that participants need moral development in a form the process designer's value. A particular view of moral development may not be culturally sensitive and may encourage participants to adopt a single world view about what is appropriate human behavior in conflict management and decision making situations.

Constructive Confrontation, with its emphasis on "moral development as transformative change," implies that 1) there is some preferable condition for the participants' lives (and the process designers/facilitators know what that condition is) and 2) the process is both willing and able to move the participants toward that preferable condition. Third, Constructive Confrontation's use of a health metaphor appears more normative than pluralism would call for (i.e., the participants or their behavior are "sick," and our task is to prescribe a "cure.")

Transactive Planning's view of transformation focuses on the situation and, in contrast to Constructive Confrontation, seems compatible with pluralism. It encourages change within the management and decision making system (Friedmann, 1973). Systems are often resistant to change; learning and respect are essential to transforming a system. Learning cannot be imposed; parties need to respect the processes and styles by which people learn. Parties involved in mutual learning will not succeed by destroying or discrediting the world views of others. According to Friedmann, in any given problem situation, planners contribute concepts, theories, analyses, processed knowledge, and new procedures. Clients contribute an intimate knowledge of context, realistic alternatives, norms, priorities, feasibility judgments, and operational details (ibid.; p. 187).

Transactive Planning, then, may be a transformative process that, while embracing an ideology of change, does so in a way that draws strength from pluralism. Transactive Planning, Friedmann contends, "humanizes the acquisition and uses of scientific and technical knowledge" (ibid.; p. 190). Its strength comes from its presumptions of equality and the values of participatory democracy. Transactive Planning incorporates the features of cooperative learning: authenticity, shared knowledge, community involvement, dual responsibility, and positive interdependence (Johnson and Johnson, 1994). It promotes the "transfer of knowledge" between planner and client; between manager and constituent. "This transfer of knowledge," Friedmann notes, "facilitated by an environment that favors dialogue, requires that mutual learning extend in a web of interpersonal transactions, downwards to individual

working groups and upwards to higher-level assemblies" (ibid.; p. 200). Transactive Planning centers "projects in localities and regions require mutual learning, patient listening, and a tolerance for contrary views" (ibid.; p. 160).

7: Conclusions

In a noteworthy new book, E. Franklin Dukes of the University of Virginia Environmental Negotiation Institute sees an imperative for collaboration. Although he does not invoke the term, his vision is certainly consistent with a pluralist approach.

Beyond the practical need for agreement is the moral need to move beyond the type of fighting that which characterizes so much of public conflict. This moral need has led to the search not only for common ground, but for higher ground: a ground for engagement of issues on terms such as fairness, integrity, openness, compassion, and responsibility. It is the search for forums and processes where individuals and organizations can be forceful advocates without being adversarial, where public officials can make effective decisions without being dictatorial, and where communities can come together rather than split apart when faced with tough problems and divisive conflicts. (Dukes, 1996; p. 2)

Transactive Planning, Communities of Interest/Open Decision-making, Search Conferencing/Participative Design Workshop, Constructive Confrontation, and Collaborative Learning each hold the potential to be processes on the higher ground of which Dukes writes. Each, too, places significant importance on constructive, civic communication. As Dukes notes, processes for making decisions in the public arena -- whether they are on resource management, health care, or education -- must promote an engaged community, responsive governance, problem solving, and opportunities for building sustainable relationships. To make progress on all these goals, constructive, civil discourse is critical: "honest, responsible, public talk," as Barber (1984; p. 189) observes, "has the power to make the "I" of private self-interest into a "we" that makes possible civility and common public action."

These five methods, and others like them, respond to a need for frameworks that foster collaboration. No single framework is paramount; each has value for particular environmental conflict situations. Each deserves the attention of natural resource policy leaders, administrators, and researchers. Public policy conflicts, Dukes (1996; p. 9) observes, are "socially constructed, dynamic organisms, whose actors, issues, and consequences are invariably shaped and transformed by the means available and used to contest them." These collaborative methods, and others like them, can foster a social reconstruction, away from the divisiveness of natural resource conflict and toward the development of sound environmental conflict management, decision making, and the building of sustainable communities.

References

- Adhikari, J. 1990. Is community forestry an new concept? An analysis of the past and present policies affecting forest management in Nepal. *Society and Natural Resources*, 3(3):257-265.
- Amy, D. 1987. *The Politics of Environmental Mediation*. New York, Columbia University Press.
- Ashor, J. L., McCool, S. F. and Stokes, G. L. 1986. *Improving Wilderness Planning Efforts: Application of the Transactive Planning Approach*. Ogden, UT, USDA-FS I Intermountain Research Station.
- Barber, B. 1984. *Strong Democracy: Participatory Politics for a New Age*. Berkeley, CA, University of California Press.
- Baruch Bush, R. A. and Folger, J. P. 1994. *The Promise of Mediation*. San Francisco, Jossey-Bass.
- Beatley, T. 1995. Preserving biodiversity through the use of habitat conservation plans. In Porter, D. R., and Salvesen, D. A. (Eds.), *Collaborative Planning for Wetlands And Wildlife*. Washington, D.C., Island Press.
- Blahna, D. and Yonts-Shepard, S. 1989. Public involvement in resource planning: Toward bridging the gap between policy and implementation. *Society and Natural Resources*, 2, 209-227.
- Blatner, K. A., Walker, G. B. and Carroll, M. S. 1997 (April). Evaluating collaborative learning in fire recovery planning. Paper presented at the Environmental Conflict in the West Conference, University of Arizona, Udall Center for Studies in Public Policy.
- Brittel, J. 1991. Negotiating to win. *Forest Watch*, 11(10): 17-24.
- Buckle, C. and Thomas-Buckle, S. 1986. Placing environmental mediation in context: Lessons from "failed" mediations. *Environmental Impact Assessment Review*, 6(1): 55-70.
- Burgess, H. and Burgess, G. 1996. Constructive confrontation: A transformative approach to intractable conflicts. *Mediation Quarterly*, 13, 305-322.
- Burns, S. 1997 (July). Critical steps in the development of community public lands partnership initiatives. Presentation at the Communities, Land Use, and Conflict Conference, Catron County, NM.
- Carpenter, S. and Kennedy, W. J. D. 1988. *Managing Public Disputes: A Practical Guide to Handling Conflict and Reaching Agreements*. San Francisco, Jossey-Bass.
- Cortner, H. J. and Shannon, M. A. 1993. Embedding public participation in its political context. *Journal of Forestry*, 91(7), 14-16.
- Daniels, S. E. and Walker, G. B. 1996. Collaborative learning: Improving public deliberation in ecosystem-based management. *Environmental Impact Assessment Review*, 16, 71-102.
- Daniels, S. E., Walker, G. B., Carroll, M. S., and Blatner, K. A. 1996. Using collaborative learning in fire recovery planning. *Journal of Forestry*, 94(8), 4-9.
- Delli Priscolli, J. 1997. Participation and Conflict Management in Natural Resource Decision-Making. In Solberg B. and Miina, S. (Eds.), *Proceedings:*

Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute p. 61-88.

Diemer, J. A. and Alvarez, R. C. 1995. Sustainable community--sustainable forestry: A participatory model. *Journal of Forestry*, 93(11), 10-14.

Dixon, K. M. 1993. The Relationship of Benefits and Fairness to Political Confidence in the U.S. Forest Service. M.S. Thesis, School of Renewable Natural Resources, University Arizona, Tucson.

Dombeck, M. 1997 (06 January). Sustaining the health of the land through collaborative stewardship. Washington, D.C.; www.fs.fed.us/intro/speech/speech.htm

Dukes, E. F. 1996. *Resolving Public Conflict: Transforming Community and Governance*. Manchester, England, UK, Manchester University Press.

Egli, C., Lietha, A. and Geiser, U. 1997. Every participation process is unique: new experiences in Swiss forest planning. In Solberg, B. and Miina, S. (Eds.), *Proceedings: Conflict Management and Public Participation in Land Management*. Joensuu, Finland, European Forest Institute, p. 227-230.

Emery, M. 1982. *Searching*. Canberra, Australian National University Centre for Continuing Education.

Emery, M. 1993. *Participative Design for Participative Democracy*. Searching. Canberra, Australian National University Centre for Continuing Education.

Fisher, R. and Ury, R. 1991. *Getting to Yes*. 2nd ed. New York, Penguin.

Flood, R. L. and Jackson, M. C. 1991. *Creative Problem Solving: Total Systems Intervention*. Chichester, UK, John Wiley.

Friedmann, J. 1973. *Retracking America: A Theory of Transactive Planning*. Garden City, NY, Anchor Press.

Friedmann, J. 1987. *Planning in the Public Domain: From Knowledge to Action*. Princeton, NJ, Princeton University Press.

Friedmann, J. 1992. *Empowerment: The Politics of Alternative Development*. Cambridge, MA, Blackwell.

Gray, B. 1985. Conditions facilitating interorganizational collaboration. *Human Relations*, 38, 911-936. Gray, B. 1989. *Collaborating*. San Francisco, Jossey-Bass.

Gumus, Canturk. 1997. Forest policy and land use problems in Turkey. In B. Solberg and S. Miina (Eds.), *Proceedings: Conflict Management and Public Participation in Land Management*. Joensuu, Finland, European Forest Institute p. 231-236.

Hautojarvi, S. 1997. Opening Address. In B. Solberg and S. Miina (Eds.), *Proceedings: Conflict Management and Public Participation in Land Management*. Joensuu, Finland, European Forest Institute p. 7-12.

Heifetz, R. A. and Sinder, R. M. 1988. Political leadership: Managing the public's problem solving. In Reich, R. B. (Ed.), *The Power of Public Ideas*. Cambridge, MA, Harvard University Press.

Hellstrom, E. 1996. Environmental forest conflicts, forest polices and the use of forest resources. Recent developments in the USA, Germany, France, Sweden, Finland, and Norway. European Forest Institute, Working Paper #7. 72 p.

Hellstrom, E. 1997. Environmental forest conflicts from an international comparative point of view. In Solberg, B. and Miina, S. (Eds.), Proceedings: Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute, p. 271-288.

Hocker, J. and Wilmot W. 1995. *Interpersonal Conflict*, 4th. ed. Dubuque, IA, Wm. C. Brown.

Hunter, I. and P. Bird. 1997. Experience with Participatory Forest Management (PFM) in the Tropics. In Solberg, B. and Miina, S. (Eds.), Proceedings: Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute, p. 177-186.

Janis, I. L. 1992. *Groupthink*, 2nd ed. Boston, MA, Houghton Mifflin.

Kekes, J. 1993. *The Morality of Pluralism*. Princeton University Press, Princeton NJ.

Lewicki, R. L., Litterer, J. A., Minton, J. W. and Saunders, D. M. 1994. *Negotiation*, 2nd ed. Burr Ridge, IL, Irwin.

Loikkanen, T. and P. Wallenius. 1997. Experiences from the regional natural resource planning process in Kainuu. In Solberg, B. and Miina, S. (Eds.), Proceedings: Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute, p. 197-202.

Mayer, R. and Ottitsch, A. 1997. Designing a public participation approach to natural disaster control and risk assessment. In Solberg, B. and Miina, S. (Eds.), Proceedings: Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute, p. 211-226.

Mohai, P. 1987. Public participation and natural resource decision-making. *Natural Resources Journal*, 27(1): 123-155.

Moore, C. 1988. Techniques to break impasse. In Folberg, J. and Milne, A. (Eds.), *Divorce Mediation: Theory and Practice*. New York, Guilford.

Moore, S. A. 1994. *Interaction Processes and the Resolution of Environmental Disputes: Case Studies from Public Land Planning in the United States and Australia*. Ph.D. diss., College of Natural Resources, University of Washington, Seattle.

O'Toole, R. 1988. *Reforming the Forest Service*. Washington, D.C., Island Press.

Overbay, J. 1992. Ecosystem management. In USDA Forest Service. Proc. Nat. Workshop: Taking an Ecological Approach to Management. Salt Lake City, UT 27-30, April 1992. USDA For. Ser. Watershed and Air. Mgt. WO-WSA-3.

Paldanius, J. 1997. Experiences of Public participation in Finland. In Solberg, B. and Miina, S. (Eds.), Proceedings: Conflict Management and Public Participation in Land Management. Joensuu, Finland, European Forest Institute, p. 187-196.

Rescher, N. 1993. *Pluralism: Against the Demand for Consensus*. Oxford, UK, Clarendon/Oxford University Press.

Salvesen, D. A., and Porter, D. R. 1995. Introduction. In Porter, D. R. and Salvesen, D. A. (Eds.), *Collaborative Planning for Wetlands and Wildlife*. Washington, D.C., Island Press.

Selin, S. and Chavez, D. 1995. Developing a collaborative model for environmental planning and management. *Environmental Management*, 19, 189-195.

Selin, S. W., Schuett, M. A., and Carr, D. S. 1997. Has collaborative planning taken root in the National Forests? *Journal of Forestry*, 95(5), 25-28..

Senge, P. 1990. *The Fifth Discipline: the Art and Practice of the Learning Organization*. New York, Currency/Doubleday.

Shands, W. E., Sample, V. A., and LeMaster, D. 1990. *National Forest Planning: Searching for a Common Vision*. Washington, D.C., U.S. Government Printing Office.

Shannon, M. 1991. *Building Public Decisions: Learning Through Planning, an Evaluation of the NFMA Planning Process*. Washington, D.C., U.S. Congress Office of Technology Assessment background paper.

Sirmon, J., Shands, W. E., and Liggett, C. 1993. Communities of interests and open decisionmaking. *Journal of Forestry*, 91(7), 17-21. Sirmon, J. 1995. National leadership. In Gordon, J. (Ed.), *Environmental Leadership*. Washington, D.C., Island Press.

Susskind, L. and Field, P. 1996. *Dealing with an Angry Public: The Mutual Gains Approach*. New York, The Free Press.

Trist, E. and Murray, H. 1993. *The Social Engagement of Social Science: A Tavistock Anthology, Vol. 2, The Sociotechnical Perspective*. Philadelphia, University of Pennsylvania Press.

U.S. Congress, Office of Technology Assessment 1992. *Forest Service Planning: Accommodating Uses, Producing Outputs, and Sustaining Ecosystems*. OTA-F-505. Washington, D.C., U.S. Government Printing Office. USDA-Forest Service.

1990. *Critique of Land Management Planning, Volume 2: National Forest Planning: Searching for a Common Vision*. FS-453. Washington, D.C.

Walker, G. B. and Daniels, S. E. 1997. Foundations of natural resource conflict: Conflict theory and public policy. In Solberg, B. and Miina, S. (Eds.), *Proceedings: Conflict Management and Public Participation in Land Management*. Joensuu, Finland, European Forest Institute p. 13-36.

Wehr, P. 1979. *Conflict Regulation*. Boulder, CO, Westview.

Wilson, K. and Morren, G. 1990. *Systems Approaches for Improvements in Agriculture and Resource Management*. New York, MacMillan.

Wondolleck, J. 1988. *Public Lands Conflict and Resolution: Managing National Forest Disputes*. New York, Plenum Press.

Notes to readers

This article is included in the On-Line Mountain Forum Library with permission from the Food and Agriculture Organization of the United Nations.

Copyright: All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the copyright owner. Applications for such permission, with a

statement of the purpose and extent of the reproduction, should be addressed to the Director, Information Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy

i An earlier version of this paper was presented at the 4th Biennial Conference on Communication and Environment, hosted by SUNY-ESF, Syracuse, at Cazenovia, New York, 28 July 1997.

ii Also known as absolutism.

iii For example, consider conflict definitions from Folger et al. (1997) -- the interaction of interdependent people who perceive incompatible goals and interference from each other in achieving those goals; Conrad (1990) -- communicative interactions among people who are interdependent and who perceive that their interests are incompatible, inconsistent, or in tension; Pruitt and Rubin (1986) -- divergence of interest, or a belief that the parties current aspirations cannot be achieved simultaneously; and Deutsch (1973) -- whenever incompatible activities occur... one party is interfering, disrupting, obstructing, or in some other way making another party's actions less effective.