

Organizational Commitment to Integrated and Collaborative Management: Matching Strategies to Constraints

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ABSTRACT / Integrated and collaborative approaches to environmental management are being advocated as a more appropriate and effective approach to decision-making. It is based on collaboration among a range of individuals and or-

ganizations that have a stake, role, or responsibility in management outcomes. However, researchers have found that implementation of this approach has encountered difficulties. This paper focuses on the role of organizations and their commitment to implementation. Based on case study and survey research in the United States and Australia, the author examines organizational constraints and the range of strategies used to secure commitment. It is argued that participants must more explicitly address the commitment issue and design implementation strategies that respond to organizational constraints.

Integration and collaboration have become common themes in environmental management. They are advocated for their more holistic approach that focuses on management outcomes rather than narrow jurisdictions and single issues. A variety of terms are used to promote this concept, including integrated environmental management, integrated watershed management, collaborative planning, integrated coastal zone management, ecosystem management, and integrated resource management. The basic philosophy of these approaches is that managers must address the range of physical, ecological, social, and economic interconnections and produce a strategic approach to management. To accomplish this in practice, stakeholders representing interest groups, government bodies, and individuals must collaborate to develop more effective management approaches.

Integrated and collaborative approaches are being used extensively around the world, and many of these efforts have achieved consensus on problems and common goals. However, research is demonstrating that the issue of implementation is problematic (Hooper 1995, Margerum 1999). In particular, integrated approaches often fail to gain commitment from participants to carry out the policies, programs, and actions to which they have agreed.

This article focuses on the role of organizations in integrated environmental management efforts and

their commitment to implementation. Based on research in the United States and Australia, I review organizational responses to implementation and describe some of the common factors that appear to determine organizational participation. The paper concludes with a review of the range of strategies that stakeholder groups have used to gain commitment.

Method

The findings reported here are from a series of research projects on integrated and collaborative approaches conducted in the United States and Australia during 1993, 1995, and 1997–1998 (see Table 1). In 1993, I examined case studies in the United States that used a collaborative approach and had produced some outcomes that could be evaluated. For each case study, the research involved interviews and written surveys with 8–15 participants covering issues about case history, organizational support, coordination, conflict resolution, public involvement, and outputs and outcomes.

In 1995, these findings were tested and amplified through a year-long investigation of collaborative-based environmental planning efforts in Australia. This study focused on 16 collaborative management efforts, many of which were watershed-based efforts. While all of the US cases had achieved some outcomes, the Australian cases had much more mixed results. The Australian case studies involved interviews with coordinators and stakeholders (three to eight participants per case

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Table 1. Case studies researched

United States (1993 study)
Black Earth Creek (WI)
Starkweather Creek (WI)
Lower Wisconsin River (WI)
Upper Wisconsin River (WI)
Milwaukee River (WI)
Lake Winnebago (WI)
Upper Mississippi River (WI-MN)
Lake Tahoe (CA-NV)
United States (1997 study)
San Francisco Estuary (CA)
Chicamauga-Nickajack River (TN)
Lake Okeechobee (FL)
Lower Wisconsin River (WI)
Lake Winnebago (WI)
Australia (1995 study)
New South Wales
North West
Clarence River
Georges River
Hacking River
Illawarra
Queensland
Lockyer Valley
Condamine River
Mary River
Pioneer River
Johnstone River
Trinity Inlet
South East Queensland 2001
Victoria
Goulburn-Broken
North East
Corangamite
South Australia
Mt. Lofty Ranges
Australia (1997–1998 study)
New South Wales
Illawarra
Berowra Creek
Queensland
Trinity Inlet
South East Queensland 2001
Tully Catchment

WI = Wisconsin, MN = Minnesota, CA = California, NV = Nevada, TN = Tennessee, FL = Florida.

study), reviews of committees' written records, and observation of committee meetings. Using a checklist of issues identified in the US research, the semistructured interviews explored committee formation, committee operation, roles, constraints, commitment, and achievements.

In order to test the external validity of the case study findings, a survey was mailed to all participants on 28 of the 49 catchment committees in New South Wales and Queensland. The participating committees included a broad cross section of urban and rural committees as

well as coastal and inland groups. The respondents generally reflected the range of interests involved in most committees, but the response rate of individuals representing government organizations was lower than would be expected. The survey focused on the issues of committee operation, committee support, evaluation of committee efforts, and assessment of participant commitment. The survey also asked open-ended questions about inhibitors and supporting factors. These answers were classified by content and broken down by committee to check for consistency within committees. Finally, in 1997 and 1998, I conducted several new and follow-up case study investigations in the United States and Australia using the same research method and interview protocol.

As with much qualitative analysis, the complexity of the phenomenon being studied necessitated an iterative approach to the research analysis. This process involved analysis and reanalysis of the case study data, as well as comparison and interpretation using the literature. As with all case study research, the difficulty of data analysis is compounded by the number of variables and the unique issues raised in each case. In presenting the findings from this iterative review and synthesis, I have focused on the findings that are replicated across several cases rather than those that appeared to be unique to just one or two cases. This use of multiple cases helps the replicability and robustness of the findings (Yin 1996).

Background

The principles of integrated management are well known in a range of disciplines, and four fundamental substantive elements are commonly cited. One of the most commonly cited principles is the need for a *holistic* or system-wide view of processes, rather than a disciplinary, jurisdictional, or single-issue focus (Agee and Johnson 1988, Wondolleck and Yaffee 2000). In turn, a holistic approach requires a recognition of *interconnections* within these systems, such as transboundary problems and biophysical–socioeconomic relationships (Hicks and Brydges 1994, Mitchell and Hollick 1993). It is also essential to agree on clear *goals* of management so that areas of agreement and disagreement can be identified (Agee and Johnson 1988, Cicin-Sain and Knecht 1998). However, even with the identification of common goals, the breadth and complexity created by a holistic and interconnective approach is likely to produce an immensely large and complex view of the management setting. Thus, an integrated approach must incorporate a *strategic and adaptive* approach to

decision-making that is able to focus participants on key actions (Born and Sonzogni 1995, Mitchell 1990).

To translate this approach into operation, public and stakeholder interaction is required to devise effective solutions and build support for implementation (Born and Sonzogni 1995, Wondolleck and Yaffee 2000, Mitchell 1990). The public includes a wide range of potential participants whose interests are not always well defined, but their input can contribute to better information and more accurate identification of issues and goals. Stakeholders are people and organizations with a more clearly defined stake or concern in management outcomes; they may include government, interest groups, landowners, users, and concerned individuals. Organizational stakeholders are particularly important in implementation, because they are most likely to have the resources and capacity to carry out implementation actions. However, organizations also operate under complex structures and hierarchies that make participation in a consensus-building process difficult. Furthermore, once consensus is reached with organizations, it can be difficult for the information, policy direction, and actions to filter through the organizational structure to produce changes.

Australia and United States Comparison

In considering organizational responses in Australia and the United States, it is important to compare the context for integrated and collaborative approaches in these two countries. Nongovernment organizations, such as industry associations and environmental groups, participated in efforts in both countries. However, as would be expected in a less populated country like Australia, the nongovernmental organizations are smaller and less numerous. In Australia, the federal government has limited jurisdiction over environmental issues compared with the United States. In practical terms, this means that federal agencies are not directly involved in most integrated management efforts in Australia, while they are more commonly involved in US projects. Australian federal and state governments operate under a parliamentary system. Thus, the party in power has substantial power to legislate and administer laws and policies.

Despite the institutional and constitutional differences, there is remarkable similarity between the basic approaches and issues participants confront. In both the United States and Australia, there have been extensive efforts to develop integrated approaches for watershed management. For example, the US Environmental Protection Agency has been encouraging states to develop watershed management programs that use

stakeholder groups to address environmental problems (US EPA 1993). In Australia the concept has also been widely embraced for managing catchments (watersheds), and the states of New South Wales, Western Australia, Queensland, and Victoria have all adopted integrated management approaches. Catchment management committees composed of representatives from agencies, local government, and community groups work collaboratively with the assistance of independent, government-funded coordinators to develop regional management strategies.

In both countries the issue of organizational roles and responses has been an important one. In the US case studies, participants cited two organizational commitment concerns: overdominance by lead organizations and the lack of commitment by the other participants. Lead organizations such as the Wisconsin Department of Natural Resources committed a high level of resources and staff to integrated projects, and some participants believed they overwhelmed the process. Other organizations, such as federal agencies, state agencies, and local government, were criticized for not committing enough resources and not responding to stakeholder concerns.

The Australian cases revealed fewer problems with overdominance, since many integrated management efforts are facilitated by semi-independent coordinators. However, there was considerable concern among participants that state and local government organizations were not supporting the effort. When Australian participants were asked about the influence of their catchment committee, only 45% believed they influenced state agencies and less than 40% believed they influenced local government decision-making ($N = 212$). When participants were asked to list the factors inhibiting the progress of their committee, the commitment of participants (state agencies, local government, and generally) was one of the most common responses. In many of the personal interviews, participants stated that agencies and local government were participating in the effort, but they were not strongly committed to changing policies, programs, and actions.

A Typology of Organizational Responses

Although the term “partnership” is often used to describe organizational participation in integrated and collaborative management projects, there was a wide range of responses among United States and Australian organizations. For illustrative purposes, I have classified these responses into four broad categories: nonparticipant, observer, partner, sponsor.

Nonparticipants are organizations that refuse to participate or are not actively involved. For example, several local governments in the Mary River in Queensland have not participated in the catchment group, despite the fact that the river flows through their jurisdiction. Similarly, a land-rights group refused to participate in a stakeholder effort to discuss management of the lower Wisconsin River valley. The implications of nonparticipation depend upon the setting. In some cases, the process may be able to proceed without the organization. However, some organizations may be critical decision-makers, and the integrated management effort may require their participation.

Observer organizations participate in integrated and collaborative approaches, but they essentially just observe activities of the group rather than actively engage in the process. For example, agencies such as the New South Wales Department of Fisheries and the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) monitored watershed management activities but were not always active participants.

Partner organizations are actively involved in both the planning and implementation of integrated management efforts. They commit staff time and some resources to jointly support the effort and are engaged in implementation activities relevant to their area of concern. For example, in the Milwaukee River watershed the University of Wisconsin-Extension has been an active partner in the project, carrying out education and facilitation activities. Partnerships are often the ideal participation response, because the organizations are active contributors to the relevant planning and implementation activities.

Finally, some organizations essentially *sponsor* integration efforts because of the breadth of their authority or the level of their financial commitment. For example, in the Winnebago lakes system, the Wisconsin Department of Natural Resources (WDNR) has involved a range of stakeholders to identify management goals and objectives for the system. However, because most of the actions stemming from this effort are departmental responsibilities, the WDNR is essentially sponsoring the project, and other stakeholders are providing information and advice.

In any given project, organizational participants may assume any or all of these roles. Thus, the use of terms such as “partnerships” and “collaboration” may not reflect the differing levels of commitment to integration efforts. The question raised by this issue is: What makes organizations respond differently?

Determinants of Organizational Involvement

There are many factors that determine how an organization will respond to an integrated environmental management effort. On the basis of stakeholder interviews and surveys, I identified six major types of determinants, which are considered in turn.

Legislation and Mandates

Legislation and mandates can create real and perceived constraints to organizational involvement. One of the real constraints is that many government organizations cannot delegate their management and regulatory functions. Furthermore, some policies advocate a narrow management focus that constrains them from taking a holistic approach (Cicin-Sain and Knecht 1998). For example, prior to the passage of the US Electric Consumers Protection Act, hydropower relicensing could not consider environmental and recreation issues during dam relicensing (WDNR 1992).

However, some constraints are perceived or self-imposed. Participants in both the United States and Australia contended that government organizations sometimes used limitations on delegation of authority as an excuse for not allowing substantive discussion and interpretations of how management and regulations would be implemented. Nongovernment organizations may also be constrained by their missions and mandates. Organizations with a narrow substantive or geographic focus may have difficulty participating in broad-based deliberations. For example, in the Lake Winnebago planning process, several user groups began with limited knowledge or concern about conflicts with other user groups.

Resources

Resources are an important determinant of organizational involvement in many integrated management efforts. In both the US and Australian research, some organizations indicated that they did not have adequate staff or staff time to send them to meetings, fund projects, or allocate them to joint projects. In a survey of catchment committee members in Queensland and New South Wales, only 23% of respondents believed they had “adequate” resources ($N = 157$). Integrated management efforts clearly have immediate transaction costs, and some organizations choose to either focus on their core business or do not have adequate staff to participate on a regular basis. Essentially, these organizations decide that the cost of cooperation is too great (Weiss 1987). Survey results from organizational participants (nongovernmental organizations, state

agencies, and local governments) on Queensland and New South Wales catchment committees revealed that 39% indicated they were not allocated sufficient time in their job to participate in integration activities. Similarly, participants in several US projects complained that the collaborative efforts were often not figured into their work plans and priorities. For example, a federal fisheries biologist working on a project in Wisconsin commented that because of limited resources, he often attended meetings on his own time because his supervisors would not allocate work time. These time and resource constraints were also significant for nongovernment organizations because many of them had only one paid employee, or were completely volunteer.

Organizational Perception

Although resources often limit the ability of an organization to participate in an integrated project, administrative perception of the problem and its relevance to the organization is often equally important. In the Australian research, this was revealed most clearly by regional differences of state agencies. For example, survey responses about the commitment of one New South Wales agency revealed wide ranging evaluations of commitment across the state. When broken down by committee, the mean scores for the agency ranged from high to very low. [Respondents evaluated agency commitment on a scale from +2 (very high) to -2 (very low). When broken down by committee, the mean scores ranged from 1.3 to -2.0.]. The participants suggested scores were due to the leadership of regional administrators.

Logsdon (1991) argues that two essential preconditions to participation are: perceived interdependence with other parties and high stakes for the potential participant. A lack of commitment may also be due to a tendency for some organizations to limit their concern to specific legislative functions or the preference among some to remain independent regardless of financial calculations of costs or benefits (Guruswamy 1989, Weiss 1987). Some nongovernmental organizations may be concerned that participation in the collaborative effort could weaken their power and influence (Amy 1987). For example, a land rights group in the lower Wisconsin case chose to drop out of the stakeholder group and fight the effort through political forums. Ultimately, an integrated approach requires organizations willing to share power over decision-making, which some may resist (Selin and Chavez 1995, Wondolleck and Yaffee 2000).

Organizational Guidance and Training

Even with organizational commitment to integrated management efforts, interviews with Australian and US participants revealed that organizational guidance and training can be an important determinant of commitment. A common problem within organizations is that administrators and managers do not know how to respond to these approaches and therefore have not addressed the relationship to their decision making processes (Wondolleck and Yaffee 2000, Laws 1999). In both the US and Australian surveys, a substantial number of respondents indicated that their organization did not provide "sufficient" or "appropriate" guidance (Figure 1). In particular, government participants expressed difficulties with this relationship.

In participant interviews and observations of stakeholder meetings, some US and Australian organizational representatives were reluctant or unable to make decisions, and many had difficulty distinguishing among their organizational, professional, and personal perspectives. Representatives were sometimes dealing with issues that had not been clarified within their own organization and therefore had problems participating in the discussions—a dilemma that is not uncommon in interorganizational efforts (Colosi 1985, Innes and others 1994).

Personal Commitment

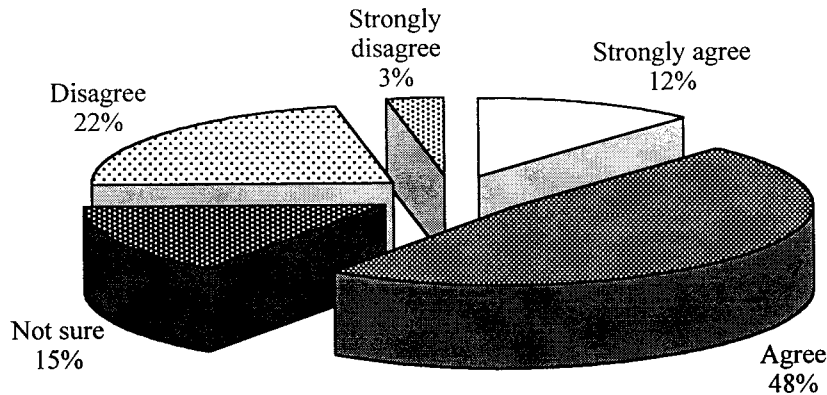
The commitment of individual representatives also has an important influence on organizational involvement. In stakeholder interviews, many organizational representatives indicated that their organization was committed because they were personally committed to the effort. For example, one Sydney catchment committee had representatives from several local governments whose commitment ranged from partners to almost nonparticipants. When interviewees were asked to explain the difference, they cited different levels of personal commitment by the council representative. Conversely, in one Wisconsin project, participants were frustrated by individuals that consistently failed to communicate with their organizations. They found that the lack of personal commitment often delayed decisions for several months.

Organizational Power

Finally, a potential determinant of organizational involvement is unwillingness to share power. Stakeholders in the United States and Australia rarely cited this constraint explicitly, but there was implicit reference to this tension. For example, in Trinity Inlet (Queensland), there were tensions among state natural re-

Australian Organizational Respondents

Survey Question: "My organization has provided me with sufficient guidance about my role on the committee..." (n=104)



Wisconsin Department of Natural Resources

Survey Question: "How good has the WDNR been at giving you appropriate direction and guidance?" (n=34)

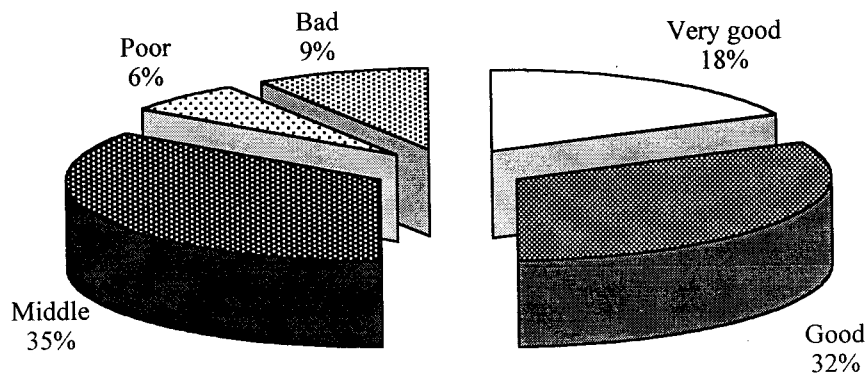


Figure 1. Response from surveys about organizational guidance

source managers, local governments, and the Port Authority about sharing decision-making authority. Several participants believed that collaborative efforts were being undermined by a behind-the-scenes power struggle. A more open and explicit power struggle has occurred in the Lake Tahoe basin, where long-running jurisdictional and policy battles have occurred among the regional planning agency, federal agencies, state and local government, and interest groups.

Grumbine (1994, p. 33) points out that cooperation is difficult, because it leads directly towards "changes in power relationships among players in the implementation game." Similarly, Seidman (1976, p. 194) notes that mutual agreements to cooperate on policy or action inevitably advance some interests at the expense of

others. Ultimately, major inequities in power can be a major barrier to collaborative approaches (Gray 1989). Furthermore, addressing these inequities may require negotiating with an organization's constituencies—the groups of interests clustering around the organization and its mission.

Strategies for Gaining Commitment

Stakeholder groups faced several of the constraints listed above. Some of these constraints are common in the planning and public policy literature. However, the extent and complexity of the constraints appears to be heightened in an integrated approach because of over-

Table 2. Strategies for gaining commitment from organizations

Strategies	Ties that bind participants	Pros	Cons
Legislative	Power	Simple Strong central control	Difficult to establish Power does not create commitment
Contractual	Contract	Provide clear expectations among participants Public contract	Often not enforceable
Facilitational	Facilitator	Works well if legitimate third party exists Facilitating organization helps binds parties together	Difficult to find and fund facilitator High pressure and difficult work for facilitator
Interorganizational coordination	Interaction	Systematic Builds interaction at several levels	Establishment and transaction costs Involves power sharing
Financial	Money	Incentives for participation Can fund activities that span jurisdictions	Requires funding source Commitment may only last as long as funding
Interpersonal	People	Cost effective May lead to other cooperative activities	Ephemeral Depends upon personalities

lapping management interests and jurisdictional boundaries.

In most of the case studies, stakeholders created a management plan that listed a range of actions and responsible parties. Many of the groups did not explicitly address the issue of organizational commitment to the project and plan, but they used a range of approaches to encourage commitment. I identified six strategies used in the case studies; most of these were used in combinations rather than individually (Table 2).

Legislative Strategy

A legislative strategy attempts to bring organizations together through changes in power and jurisdiction. In some cases, legislation is amended to foster or support an integrated approach. For example, the New South Wales Catchment Management Act established a framework for supporting integrated management efforts on a catchment (watershed) basis.

Legislative strategies can also create a new hierarchical entity with the scope and jurisdiction to carry out an integrated approach. For example, the Lake Tahoe Regional Planning Authority (Lake Tahoe RPA) is a bistate planning organization that oversees the management of land, air and water. This approach is often attractive because of its simplicity, but the creation of such an entity is likely to spark intense debate related to

power redistribution, political reluctance, and the extent of legal authority (Bührs 1991, Cicin-Sain and Knecht 1998). For example, the extent of Lake Tahoe RPA authority has brought the organization into continuous conflict, legal challenges, and political reviews. Furthermore, a hierarchical approach may only internalize conflicts that previously occurred openly between separate organizations (Bührs 1991, Molnar and Rogers 1982).

Contractual Strategy

A contractual strategy is an effort to bring a set of organizations together under a joint written agreement or strategy that binds them politically, morally, and sometimes legally (Gray 1989, Julian 1994). Strategies usually identify management objectives and actions—often listing the organizations responsible for implementation. Contracts and joint agreements are more formalized approaches to setting out agreed principles and objectives. For example, state agencies and a local government involved in managing the Berowra Creek near Sydney signed a “Statement of Joint Intent” that spelled out the set of actions each would produce.

Contractual approaches can define the roles and relationships of different organizations so participants are clear on expectations and limitations. Plans and agreements can also establish systems for monitoring to ensure that participating organizations are complying

with their agreement. Thus, these agreements become contracts that define steps and actions of each organization (Julian 1994). Carpenter and Kennedy (1988) emphasize the importance of defining these activities with organizations, because of their potential to change staff, administration, and direction.

The drawbacks of a contractual strategy are that it is often not enforceable, which means that implementation ultimately depends on other commitment variables. Despite listing actions and responsible parties, the case studies revealed that many organizations were not following through on the actions. For example, when participants in the Milwaukee River Watershed reviewed the first version of their integrated management plans, they found that action plans were wish lists rather than a concrete list of actions they were able and willing to deliver.

Facilitational Strategy

In some cases, determinants such as perceptions and power relationships create tensions between organizations that make it difficult for any of them to convene an integrated approach. In such settings, facilitators (either individuals or organizations) can be effective in helping to convene the parties, manage the process, and support implementation. Through this interaction participants can gain a shared perception of the problem, an awareness of interests, and an understanding of common goals for management (Cicin-Sain and Knecht 1998). Thus, it is this shared knowledge from the consensus-building process that sustains commitment to implementation.

Under this strategy it is important that participants perceive facilitators as reputable, trustworthy, and unbiased (Gray 1989, Wondolleck and Yaffee 2000). In several of the case studies, a staff member from a participating government organization served as a facilitator, but this sometimes raised concerns about bias and fairness.

In some regions, community-based groups, regional planning organizations, or private foundations have provided the facilitation role. For example, a nonprofit group in Tennessee is addressing the management of North Chickamauga Creek by facilitating government organizations and nongovernmental participants. However, these organizations also tend to have limited resources to support such efforts.

Some government organizations provided funding for coordination, but kept the coordination staff separate from the organization. For example, the Wisconsin Department of Natural Resources provides funds for local (county) government to hire watershed coordinators. This has helped overcome some of the bias issues,

but these coordinators also assume a difficult role of trying to work for a wide range of views and interests.

Interorganizational Coordination Strategy

Gaining commitment often requires structures and regular processes to facilitate interorganizational coordination. These structures and processes can also help overcome a lack of commitment by requiring a range of individuals to share power through continuous information exchange and interaction. For example, Trinity Inlet participants created a technical committee that brings together an array of operational staff to share information and policies about development applications in the Inlet.

An interorganizational coordination strategy can be effective because it establishes an adaptive system of management that is more likely to anticipate problems rather than react to them (Margerum and Born 2000). Furthermore, if the arrangements are regularly used and clearly understood, they are likely to withstand changes in personnel. However, developing coordination arrangements takes time and resources to establish them and involves transaction costs during operation. Furthermore, as a process of information sharing and joint decision-making, coordination involves power sharing, even if there is no explicit attempt to rearrange existing powers.

Financial Strategy

As noted above, organizations are often designed to address single sets of issues, and integrated approaches present difficulties because some issues do not match the "core business" of any single organization. A financial strategy attempts to resolve this by directing funds into a common pool so that funding becomes the carrot for organizations to participate in activities for which they might not normally be willing to allocate resources (Cicin-Sain 1998; Wondolleck and Yaffee 2000).

The source of this funding could be independent (legislative allocation or special funding arrangement) or the organizations themselves could contribute the funds through an annual commitment. For example, some watershed management efforts in Wisconsin involve joint funding arrangements between state and local government. The advantage of this approach is that it creates incentives for participants to commit to the process. Furthermore, it may make them more willing to be involved in projects that span jurisdictional boundaries. The disadvantage of a financial strategy is that the commitment may only last as long as the funding.

Table 3. Matching strategies to constraints

Constraint	Strategies to overcome constraints ^a					
	Strategies focusing on organization			Strategy focusing on both	Strategies focusing on the individual	
	Hierarchical	Financial	Contractual	Coordination	Facilitational	Interpersonal
Legal and legislative	✓		✓			
Resources		✓				
Organizational power	✓	✓	✓	✓	✓	✓
Organizational perception			✓	✓	✓	✓
Organ. guidance/training			✓		✓	✓
Personal commitment				✓	✓	✓

^aA check mark indicates that strategy addresses constraint.

Interpersonal Strategy

Implicit in every case study was an interpersonal strategy that relied on the mutual trust and understanding among the people involved in the integrated effort. This interpersonal interaction leads to mutual understanding about problems, awareness of different views, and interpersonal trust (Margerum 1999). Innes et al. (1994) refer to this mutually derived momentum as “shared capital,” and emphasize it is important not only for reaching consensus but also supporting implementation. For example, many Australian catchment management committees have been effective in bringing together a variety of stakeholders and fostering a shared understanding of problems, goals, and possible solutions. In catchments such as the Johnstone River in Queensland and Georges River in Sydney, the process has brought together a range of parties with different and conflicting views and identified joint goals that they can work towards. The weakness of this approach is that it can be ephemeral, depending upon the people involved at a given time. As people move within or leave organizations, new participants become involved and the process of building trust and commitment must begin again.

Implications for Practice

In most case studies, participants relied on two implementation strategies: they developed a plan (a contractual strategy), and they relied on personal interaction (interpersonal strategy). However, many plans did not produce clear obligations nor did they monitor progress. Furthermore, personal commitment was often variable and highly dependent upon both the in-

terest and influence of individual participants. The case study analysis suggests that organizational commitment is a complex issue that requires more attention during implementation.

A comparison of the strategies and constraints discussed above leads to some preliminary guidance about how participants may match appropriate strategies to constraints (Table 3). The strategies can be broadly classified into those that focus on the organization, those that focus on the individual, and those that focus on both. The underlying theory of an organizationally focused strategy is that convincing the organization (through contracts, incentives, etc.) will produce commitment from the top, and the bottom (managers and staff) will follow. The individual-focused strategies, such as facilitation, institutional arrangements, and interpersonal arrangements target staff and managers. The underlying theory is that these people either have the power to commit policies and resources, or they will convince their organization to commit to implementation. Interorganizational coordination strategies can address the organization and/or the individual, depending on the focus for these arrangements. Each constraint has the potential to be addressed by a range of strategies, but a comparison suggests that some will be more likely to be successful than others.

Legal and legislative constraints are the most difficult to address, because they include a wide range of powers outside the scope of authority of the people participating in the integrated management effort. Changing this constraint requires changes in organizational power, which may come through hierarchical strategies that change authority (e.g., Lake Tahoe) or contractual strategies that share authority (e.g., Berowra Creek).

Sometimes changes in specific legislative powers may be necessary, but the evidence from the case studies suggest that most organizations have room for interpretation under their legislative powers.

Claims of *resource constraints* are sometimes used by organizations unwilling to give the integrated management effort a high priority. However, if organizations are truly constrained by lack of funding, some kind of financial strategy will be necessary for gaining commitment. Other strategies may help alleviate some aspects of the problem, but they are not likely to solve a true resource constraint.

Constraints created by *organizational power* are more complex, and a range of strategies may address this constraint. Organizational-focused strategies focus on the organization and its leadership. Legislative strategies can force organizations to give up power by rearranging jurisdictions. Financial and contractual strategies may encourage organizations to share power by seeking leadership commitment. Interorganizational coordination strategies may help organizations share power through sharing information and decision-making—and in turn gaining influence over these processes within other organizations. Individual-focused strategies rely on managers and staff to share power or to convince their organizations to share power. Facilitational strategies help share power by creating an independent third party to guide the interaction process—thus reducing the influence of powerful organizations over the process. Finally, an interpersonal strategy can seek to share power possessed by individuals within an organization, such as access to their information or influence over personal decision-making powers.

Constraints such as *organizational perception and organizational guidance/training* require an organization-wide recognition of the benefits of an integrated approach. This may come about through organizational commitment like a contractual strategy, but will also probably require a variety of people within the organization to interact and convince their organization of its importance. For example, institutional mechanisms create a range of opportunities for interaction between organizations, which can lead to greater organization-wide support and commitment.

Finally, *personal commitment* requires personal interaction, which is most likely to come through the individual-focused strategies. Organizations can dedicate staff to projects, but usually personal commitment does not evolve unless people interact with others and build mutual trust and interest. Interaction through institutional arrangements, facilitated involvement and per-

sonal involvement all help overcome the constraint of personal commitment.

Concluding Remarks

Integrated approaches to environmental management require the commitment of a wide range of organizations to be implemented successfully. Many of the case studies produced tremendous goodwill, information, and common goals through their consensus building processes. However, unless these outputs are combined with a commitment to implementation from organizations with the staff and resources to carry them out, these outputs will not be translated into on-the-ground outcomes. The typology presented here could be used by stakeholder groups to investigate the potential constraints to implementation by:

- Asking participants to list the determinants that have both positively and negatively contributed to their level of commitment, and
- Researching and discussing these same issues for participants not actively involved in the effort.

Some participants may be sensitive to this kind of evaluation; therefore, it would be important to begin with the assumption that everyone will identify both positive and negative influences. For example, participants should be encouraged to admit that other projects or tasks have a higher priority. By keeping this evaluation honest and constructive, the participants can then respond to these issues effectively by:

- Discussing as a group which strategies listed above (and other strategies not listed) could improve commitment, and
- Researching how a set of these strategies could be operationalized.

These steps could then comprise part of the implementation approach for the stakeholder group by:

- Incorporating the strategies into the implementation plan for the stakeholder group and the work plans of individual organizations, and
- Periodically monitoring and reviewing those strategies to evaluate their effectiveness.

In conclusion, every integrated and collaborative management effort will confront a set of determinants that will support and constrain implementation. By working through an explicit process of evaluation, participants can expose the strengths and weaknesses of

their approach and develop better strategies to improve commitment. This airing of problems and strategies will lead to more effective or more realistic strategies, and ultimately more effective outcomes.

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