

**Natural Resource Strategic Planning:
Components and Processes**

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Preface

Foresters and other natural resource managers, perhaps more than any other group of professionals, are known for taking the long view, for making strategic investments today for benefits that won't be recouped until a generation or more hence. But the demands on our natural resources--and on the people and organizations responsible for their conservation--have become far more numerous and complex than planting, tending, and harvesting trees. Strategic planning has developed as a means for both public and private natural resource management organizations to comprehensively evaluate the conditions and trends influencing natural resources, and take actions to ensure their sustainable use and productivity.

Since 1974, the USDA Forest Service has conducted its strategic planning under the provisions of the Forest and Rangeland Renewable Resources Planning Act (RPA). RPA requires that the Forest Service provide Congress with an assessment of the forest and rangeland situation in the United States every ten years, an updated program statement every five years, and an annual report summarizing the agency's progress toward the strategic goals described in the most recent program statement. More recently, the Government Performance and Results Act of 1993 (GPRA) extended requirements for strategic planning to other federal natural resource management agencies. Similar to RPA, GPRA establishes a legislative framework for having agencies set strategic goals, measure performance, and report the degree to which goals were met (U.S. General Accounting Office, 1995a). The first GPRA plans are to be submitted to the Office of Management and Budget (OMB) and the Congress by September 30, 1997.

On the basis of its two decades of experience with RPA, other agencies have looked to the Forest Service for models of how to approach natural resource strategic planning. During this period, however, significant changes have taken place in the fundamental concepts of strategic planning, and the social, political, and economic environment in which strategic plans are developed and implemented. Although the broad elements of strategic planning--assessment, program, and evaluation--remain, the components and processes within these broad elements have changed significantly over time and are continuing to evolve.

These changing components and processes of strategic planning in natural resource agencies were the focus of the 1995 William E. Shands Symposium, convened by the Pinchot Institute for Conservation at the Grey Towers National Historic Landmark in Milford, Pennsylvania on May 31 through June 2, 1995. The 62 participants in the symposium were experienced practitioners in natural resource strategic planning from numerous federal and state agencies, private corporations, universities, and other non-governmental conservation organizations. This paper is a summary of the presentations and discussions that took place at the symposium. While the authors have attempted to report the content of the deliberations accurately, they have elaborated upon several important thoughts and provided examples to communicate essential points. This summary has been reviewed by the symposium participants prior to publication.

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Natural Resource Strategic Planning: Components and Processes

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Introduction

Important changes are taking place in the way natural resource management organizations approach and conduct strategic planning. These organizations are experiencing major changes in their external operating environment, with significant implications for how they articulate their respective visions, develop long-term goals and strategies, and evaluate progress and accomplishments. Another significant change is the evolution in approaches, concepts, and techniques used in strategic planning. The basic approaches and concepts of strategic planning have been frequently revisited and revised to meet the needs of private and public organizations since its development in the public sector as part of the Planning, Programming and Budgeting (PPB) effort in the 1960s. Furthermore, new techniques have been developed as more and different organizations have gained experience with strategic planning and new technologies have been put in place. The purposes of this paper are to:

- examine the important trends influencing the environment for strategic planning by natural resource management organizations
- review the evolution that has taken place in the fundamental concepts of strategic planning
- examine the conceptual sufficiency and clarity of vision in natural resource management organizations as the basis for planning and implementation
- evaluate the adequacy of assessments in providing the information necessary for strategic planning
- determine what changes in processes and relationships are necessary in the future for strategic planning to fulfill its potential in improving the effectiveness of natural resource management organizations.

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Trends Influencing the Environment for Strategic Planning

Several important factors are influencing the external environment for strategic planning by natural resource organizations, especially federal agencies. Foremost among these trends is an *increase in public skepticism about the efficacy of government*. Much of this has to do with the contemporary debate over the size and role of government, specifically the size and role of the federal government. It also has to do with the disproportionate influence of organized or special interests in government as well as the enduring conflict between regional and national interests. The skepticism also is a function of perceived bureaucratic failure, which generally is the result of (1) limitations in time and expertise necessary to review and monitor government operations effectively, including how agency resources are used; (2) lack of competition in many services the government provides and its effect on the incentive to innovate; (3) difficulty in valuing the output of many government services such as national security, law and order, and a clean and safe environment; (4) inflexibility in many government personnel policies and programs; and (5) the dichotomy emanating from congressional pressure for government agencies to be more businesslike on the one hand, but responsive to the needs of local communities and businesses on the other.

In response to the *demand for greater accountability*, there has been a major, continuing effort to establish performance measures for federal agencies and programs.

For example, the Government Performance and Reporting Act of 1993 (GPRA) has caused many agencies to re-examine their basic mission, vision and values. Under GPRA, all federal agencies are required to develop a strategic plan by 1997. These plans must describe the agency's mission and goals, and the means by which progress toward the goals would be measured and reported. For some natural resource agencies, these requirements come on top of prior existing laws requiring strategic planning.

The *expectation for interactive decision making* by the public is an important trend in the environment for strategic planning. Through statutory requirements in the National Environmental Policy Act (42 U.S.C. 4321) and planning statutes such as the Forest and Rangeland Renewable Resources Planning Act (16 U.S.C. 1601), the National Forest Management Act (16 U.S.C. 1601(note)), and the Federal Land Policy and Management Act (43 U.S.C. 1701(note)), the public expects to be consulted in decisions over the protection, management, and use of public lands and natural resources. The complex interactions among a growing array of competing uses and values make it increasingly difficult for public agencies to develop strategic plans that are widely accepted. This, in turn, has led to a *growing influence of the courts* in reviewing, evaluating, and in some cases halting or redirecting agencies' efforts to develop or implement strategic plans.

Federal agencies are increasingly challenged to accomplish their missions with fewer personnel and smaller budgets. Concerns over government efficacy, chronic budget deficits, and a growing national debt have resulted in a *changing role for the federal government*, shifting increasing responsibility to state governments and the private sector. Related to this is an *increase in concern over private property rights* by regulatory taking. Warranted or not, the federal government is perceived by many as being more willing than state governments to impose land-use and resource management restrictions on private landowners in order to promote the public interest. The trend toward "down-sizing" of federal agencies and curtailment of their programs and activities will reduce the ability of federal agencies to address issues, concerns, and opportunities identified in strategic planning. They simply will not have the resources. It will also necessitate a different role for federal agencies in relation to other levels of government, private sector organizations, and individual citizens. The public will not be able to turn to federal agencies for remedial actions as in the past. Rather, federal agencies will increasingly become a source of technical assistance and other activities aimed at facilitating effective action by other organizations and individuals. The ability of the federal government to provide this kind of assistance may be enhanced by the trend toward federal interagency cooperation, which is being spurred by limitations on individual agencies and their need to pool their resources with one another.

Increasing uncertainty is seen as pervasive in contemporary American society, including management of natural resources. Efforts to remain competitive in a *fast-changing global economy* are leading both public and private organizations to be more flexible and innovative, but also more subject to sudden and unpredictable change. For strategic planners, this has significantly shortened both the time horizons for which meaningful projections can be made, and the frequency with which strategic outlooks must be reassessed. As a result, strategic planning has become continuous rather than periodic, and less an effort to predict the future than to prepare the organization for a variety of possible futures.

Evolving concepts in contemporary strategic planning

Resource managers are being challenged, perhaps as never before, to think outside traditional boundaries and to reconsider long-standing organizational relationships. New approaches to strategic planning are necessary, approaches that foster strategic thinking and can recognize and be responsive to shifts in the external operating environment.

What should strategic plans contain and what strategic questions should they address? The basic components of strategic planning continue to include (1) an articulation of the organization's mission and goals; (2) analysis of the external environment to identify opportunities and threats; (3) analysis of the internal

environment to identify organizational strengths and weaknesses; (4) development of alternative strategies; (5) specification of criteria for choosing the best or optimum strategy; (6) selection of the preferred strategy; (7) implementation of the preferred strategy at various scales; and (8) monitoring and evaluation to determine the effectiveness of the chosen strategy and to guide further adjustments in the organization's course. But this continuity obscures a major evolution in the techniques used in strategic planning, as well as the incorporation of many new considerations. The original elements of strategic planning are still necessary, but they are no longer sufficient.

With the use and adaptation of strategic planning over a period of several decades, many organizations have come to the conclusion that the strategic plans themselves--that is, the written document that emerges from the process--*is less important than the process by which it is developed*. The process of strategic planning is a collective learning process (Gray and Ellefson, 1991). Traditional definitions of strategy and strategic planning are based on rational planning, but strategies can emerge from within an organization without any formal planning as well. They normally develop as a result of organizational response or adaptation to unforeseen circumstances, and they persist because they work. Strategy has been defined as "a pattern in a stream of (organizational) decisions or actions," and the pattern is a product of both intended or planned strategies and emergent or

unplanned strategies (Mintzberg, 1978). Emergent strategies are often more successful than intended strategies because they incorporate important considerations that may not have found their way yet into formal planning models.

Many organizations have debated whether strategic planning should be a top-down or a bottom-up process, and most have concluded that it must be both. Successful strategic planning comprehends and synthesizes the insights and experiences of managers. The experiments that managers try and that work converge gradually into viable patterns that organizational leaders should be able to recognize and incorporate into strategic planning. On the other hand, strategic planners and organization leaders can act as catalysts to the development of better management strategies by line managers. From their broader and somewhat more emotionally detached vantage point, planners can offer generalized interpretations of situations that confront line managers to stimulate new insights and facilitate strategy development. Vertical integration of strategic planning can be critical to successful implementation. Strategic plan development that gives people at all levels of the organization a sense that they have helped shape its course can deepen the commitment of line managers to the process of strategic planning and to implementing the plan conscientiously.

The focus of strategic planning in natural resources and land management is tending toward a *system of dynamic*,

interrelated objectives, frequently called desired future conditions, rather than a set of discrete objectives. To some extent, this gives recognition to the complex functions and dynamic processes in natural systems, with variables too numerous to permit reliable predictions. But it also recognizes an equally dynamic and unpredictable social and economic system with values and preferences that can significantly change over the time horizon of the strategic plan.

Strategic planning is *no longer seen as a mechanism for predicting the future*. Strategic planning once featured detailed analyses of conditions and trends, providing data for complex models intended to predict the organization's future. Such modeling approaches are limited by their ability to capture all relevant variables, and accurately reflect the complex relationships among them. As a result, strategic planning has evolved to a mechanism used not so much to predict the future as to anticipate a range of possible futures and position the organization to be as flexible and resilient as possible, taking advantage of new opportunities as they arise and minimizing the effect of unforeseen setbacks.

Leaders of organizations in both the public and private sectors are being held to *higher standards of accountability*. This has challenged strategic planners to go back and re-examine the fundamental mission and goals of the organization and to develop new criteria and standards by which the organization's accomplishments can be measured and demonstrated (GAO, 1992; GAO 1995b). Although monitoring and

evaluation has long been one of the basic components of strategic planning, there has been much less attention to this aspect of strategic planning than, say, to the process by which alternative strategies are identified and evaluated.

Strategic planners in federal land management agencies are especially challenged to develop new means of documenting progress toward goals for long-term improvement in resource condition and environmental quality, as well as accomplishment of short-term resource management objectives. Constituents who feel federal agencies have been focused largely on achieving and reporting resource output objectives are pressing for the establishment of objective, verifiable standards with which to demonstrate improvement in resource condition over time.

To date, agency accountability has been based on monitoring budget expenditures for programs aimed at improving environmental quality or resource condition, to ensure they receive a full measure of funds in the annual appropriations process. But monitoring budgets and expenditures is at best an indirect measure. Funds expended by a program do not necessarily indicate the extent to which desired improvements in resource condition have occurred. However, until better accomplishment measures are devised, constituents will continue to focus on expenditures for individual programs rather than actual improvements in resource condition.

This perpetuates a budgeting structure that is highly fragmented along the lines of individual program functions, working *against* an integrated approach to natural resource management (Sample, 1992). As objective, verifiable criteria and standards are developed, resource assessments and strategic plans will increasingly include descriptions of longer-term (five- to ten-year) trends in specific resource condition or attributes of environmental quality, such as sediment loads in streams or the percentage of trail miles meeting a specified standard of quality. Such information will reflect more closely the effectiveness of a natural resource agency in accomplishing its mission, providing an improved basis for accountability to both Congress and agency constituents.

The effort to develop more effective measures of improved environmental quality will be stimulated by international initiatives and the potential for limitations on access to global markets for nations unable to demonstrate progress toward the goal of sustainable resource management. The United States is in the process of developing sustainable forestry criteria and indicators by the year 2000, in fulfillment of an agreement signed by the United States and 144 other countries following the UN Conference on Environment and Development (UNCED) in 1992 (Coulombe, 1995). Natural resource strategic plans and assessments by federal agencies such as the USDA Forest Service that are national in scope can be expected to assume a leading role in fulfilling this requirement. Large

private organizations are taking up the challenge as well. For example, a majority of the large forest products firms in the U.S. recently committed to a new initiative to modify forest practices and demonstrate the long-term sustainability of forest management on private lands (Wallinger, 1995).

The role of science and scientists is changing. Strategic planning has evolved from being a highly technical process to one that attempts to factor in changing social values. The role of science and technology, or perhaps more accurately, scientists and technologists, has declined in relative influence. Their findings and recommendations tend not to be viewed as being uniquely compelling, but simply as another set of information to be taken into account. Openly conflicting views among scientists has led to the general understanding that there is still a great deal of scientific uncertainty regarding the management of natural systems, and to recognize the legitimate role of a healthy public debate over social values and policy objectives.

This broader scope of discussion does not lessen the need for scientific knowledge. Indeed, the need for it is unprecedented and will continue to grow. Scientists *must* be engaged in developing policy-relevant scientific information as well as that associated with traditional scientific inquiry. They *must* play a substantial role in bridging the gap between scientific fact and public policy. They *must* be able and willing to explain and discuss their findings

in the give-and-take of a public debate.

Another important new component of strategic planning is the recognition that, in many cases, the organization can no longer accomplish its objectives alone, but must work in *partnership* with other organizations and individuals. Many resource values, such as water quality or biodiversity, can be effectively protected only by managing at large spatial scales. Ecosystem-based approaches to land management often require explicit recognition of current and expected management activities on adjacent lands, necessitating closer communication and cooperation. Among federal land management agencies, closer ties are being developed with other federal agencies having overlapping authority or adjacent lands that can directly influence the ability of a given agency to fulfill its own land or resource management objectives. Strategic planning is increasingly including components that also facilitate cooperation and collaboration in planning and land management with agencies in state and tribal governments and with a variety of corporate and non-profit organizations in the private sector.

In recent years, it has also been important for strategic planning to help identify opportunities for collaboration with different organizations in the funding of key activities on federal lands, such as wetland restoration or protection of habitat for game and non-game wildlife and fish. There is a growing list of examples of such partnerships that have allowed federal agencies to accomplish important objectives that they would not have been able to

achieve had they been limited to federal funds alone.

Related to this is the need for all federal agencies, including those managing public lands, to recognize the *changing role of the federal government* in the economy. Federal land management agencies, like other parts of the federal government, are being called upon to accomplish their missions with fewer resources in terms of both personnel and funding. This change is driven in part by the need to reduce chronic federal budget deficits. It is also driven in part by a political philosophy that the current government places too high a priority on the broad public interest at the expense of individual rights, and that a smaller, less intrusive, federal government is inherently better. Some government land and resource management programs and activities will be maintained through better interagency cooperation and innovative partnerships with state government and the private sector. Others will simply not be maintained at past levels, however, and strategic plans should include consideration of what programs and activities are essential to the mission of the agency and how they can continue with fewer resources.

Organizations of all kinds have had to reorient the original concepts and purposes of strategic planning significantly to adapt to an operating environment of greatly increased uncertainty. Strategic planning is being viewed increasingly as both a *process and a perspective* by which organizations attempt to position themselves to take maximum advantage of opportunities

that may arise under a range of possible scenarios, and to be flexible and resilient to unanticipated shocks such as shifts in the economic or political "marketplace." In other words, strategic planning is best considered as *strategic thinking*, which includes both an on-going process and a perspective.

Conceptual sufficiency and clarity of vision

One of the key functions of strategic planning is to take the agency's mission, articulate it in operational terms that can be easily understood and applied by line managers, and devise potential strategies by which the organization as a whole can accomplish its mission. But many federal natural resource planners are asking themselves whether such a vision exists for their agency, sufficient for them to then articulate it in operational terms. For many, the answer is that it does not, begging the questions of how a vision is to be developed and by whom.

Most federal land management agencies began with a statutory charter, often called an agency's "organic act." Over time, and especially during the past two decades, scientific understanding of the effect of human activities on natural environments has increased dramatically, spawning numerous additional statutory and administrative policies that modify--and sometimes conflict with--an agency's original charter. These legal conflicts have been exacerbated by agencies' own efforts to

be responsive to an array of competing interests, and by an explosion in citizen participation in agency decision-making.

Although developing the vision itself may be beyond the appropriate realm of strategic planners, the process of strategic planning can play an important role in "teasing out" a vision for the agency from its leaders and constituents or stakeholders. The need for a clear vision as a prerequisite for strategic planning is useful in forcing the issue, rather than allowing the agency and its constituents to continue muddling through with no clear purpose or direction. As additional statutory and legal requirements are layered onto an agency's original mission, strategic planning can provide the vehicle for organizational leaders, rank and file employees, Congress, and constituents to step back and take a comprehensive look at what they have wrought. Organizational change often comes incrementally, but if the tyranny of many small decisions has resulted in the agency veering from its intended course, strategic planning can bring about a course evaluation and adjustment.

Even if the agency is not regarded as having altered from its intended course, strategic planning can help consolidate several independent elements of new direction into a single coherent vision. In the case of the Forest Service, for example, the past five years have brought, among others, (1) a major policy statement announcing the shift toward an ecosystem-based approach to the management of the national forests and grasslands (Robertson, 1992), (2) a statement of the Forest

Service's top priorities as contained in the document titled: "The Forest Service Ethics and Course to the Future," (USDA Forest Service, 1993) (3) a report on how the Forest Service might "reinvent" itself to be more efficient and focus on accomplishing its core mission (USDA Forest Service, 1994), and (4) a report containing more specific information on Forest Service reinvention to conform to the requirements of the GPRA (USDA Forest Service, 1995). Individually, these documents may not provide a clear picture about the direction the Forest Service is taking. But taken together, and in the context of agency-wide strategic planning, the common threads form a coherent vision.

Adequacy of assessments

The evolution in strategic planning is nowhere more pronounced than in the relationship between assessments and strategic planning. When strategic planning was largely a technical undertaking, comprehensive and detailed assessments of resource condition and trends served as the primary motivation and focus for strategic planning. Plans were developed largely to address the current or predicted gaps between demand and supply identified in the assessments.

The concern now is that strategic planning be "*data-supported*", not "*data-driven*." The issues, concerns, and opportunities to be addressed in the strategic plan are those identified by the organization's leaders, its line managers and

other personnel, Congress, and constituent organizations and individuals. This is not to say that data should not be gathered, or resource supply and demand projections not be made. To the contrary, a *information system* is needed by land management agencies for all resources for which they are responsible at various scales over time and for several purposes: to assess the efficacy of management decisions, for public relations purposes, and to show agency responsiveness to public policy issues (GAO, 1994).

When data are needed for strategic planning, they can be accessed through the system and manipulated to meet the purposes of the strategic plan. If they are not available, they can be developed. Strategic goals should be based upon the wants and needs the identified "customers" of the organization, and modified according to opportunities and constraints in the organization's internal and external environments. Both quantitative and qualitative data about the options and alternatives, with respect to the selection criteria, may be required to select or choose the best alternative.

While strategic planning is no longer "data-driven", it still requires timely, accurate information of various kinds to support the process of formulating, comparing, and choosing among alternative strategies, and later to evaluate the organization's effectiveness and guide course changes. The questions that arise during these processes serve as an important guide to what information the organization needs

o gather, and who needs to contribute to or use the information.

- *Content.* Are the right sets of information being gathered? As financial resources become increasingly limited, it is important to prioritize the gathering of information for which there is a demonstrated need.
- *Scope and scale.* Is the information at a scope and scale appropriate to the development of an organization-wide strategic plan? Does it provide relevant information for both broader and narrower scopes?
- *Timeliness.* Is the information sufficiently up to date, and readily adaptable for its use in support of strategic planning?
- *Transparency.* Is the information utilized in strategic planning understandable by the organization's leaders and constituents?
- *Openness.* Is the process by which information is developed accessible to other organizations and individuals which might contribute additional useful information or assist in the evaluation and refinement of the existing information?
- *Credibility.* Is the assessment information and the techniques by which it is gathered and analyzed sufficiently open to peer review and

evaluation that will be widely regarded as a reliable and credible basis for the strategic plan?

- *Uncertainty.* Does the information accurately portray sources of uncertainty and risk that planners should consider when using the information or assessing the probabilities of certain outcomes?

Assessments are being regarded less as detailed, comprehensive studies aimed at predicting the future, and more as examinations of broad trends that have affected, or can be expected to affect, the organization's strategic environment. The assessment examines how the organization is functioning with respect to these trends, and how it might better position itself to adapt to or even influence important trends in the future.

Both the assessment and program planning phases of the strategic planning process are viewed as crucial to developing strong vertical integration within the organization. These are important tools by which the organization's leadership communicates the fundamental mission, vision, and values of the organization, providing local managers with a frame of reference to guide decision-making in day-to-day circumstances unique to particular local situations. For local managers, it is a vehicle to communicate to organizational leaders and to other local managers the lessons learned through their experimentation and adaptation, combining

the results of many individual learning experiences into the kind of collective learning process that keeps the organization attentive and responsive.

Increasingly, the assessment phase of strategic planning is being viewed as a means by which to evaluate an organization's progress toward key goals and objectives. This is important from the standpoint of both internal evaluation to guide adaptive management, and external evaluation by a private organization's shareholders or a public agency's constituents or legislative oversight body.

For land management agencies in particular, it is critical to utilize the assessment phase of strategic planning to measure and demonstrate progress using these criteria. For many federal agencies, performance measurement will in fact take place annually in the context of budget justifications to their departments, to the Office of Management and Budget, and to Congress. However, change in most aspects of natural resource management and environmental protection cannot be meaningfully demonstrated on an annual basis. Annual performance measurement for land management organizations, like the continuous process of strategic program planning, may best be based on annual "snapshots," each of which demonstrate progress looking back over trends of five years or more. The success of current efforts by several federal natural resource management agencies to consolidate the plethora of fragmented, function-based individual line items in their budget

structure will depend heavily on whether these new performance measures can provide the public accountability heretofore provided by tracking program-by-program expenditures.

Future Planning Needs

The goal of strategic planning is to develop and implement a strategy that builds on the organization's strengths and corrects its weaknesses, enhancing the organization's ability to seize external opportunities and to address problems, or alternatively, to counter external threats. A strategy that "stretches" the organization is essential. The strategic planning process should begin with challenging goals oriented toward future opportunities and then help develop the organization's capabilities to take advantage of such opportunities. Rather than developing a strategy that fits or matches an organization's current capabilities, the strategy should be directed toward the future: building new capabilities to exploit future opportunities and to address challenges both anticipated and unexpected.

Future strategic planning must recognize and provide for uncertainty and risk in both resource assessments and strategic plans. In an uncertain world, the future cannot be forecast with accuracy. One way of taking uncertainty into account is to develop alternative scenarios with regard to the operating environment. They tend to expand the thinking of participants in the strategic planning process. Care should

be taken, however, to ensure the scenarios are plausible. Extreme scenarios in the sense that they are not believable, will tend to discredit the process.

A mistake of strategic planning efforts in the past is to view it as the work of a particular group such as planners or top management or a planning committee. Effective strategic planning--public or private--requires participation of all levels of an organization in both planning and implementation. Broader participation insures a better understanding of the operating realities of the organization and generates more ideas, particularly from those who are closest to the facts. It is essential that all parts of the organization that will influence the implementation of the strategic plan be actively included and involved in its development.

Employee expectations are often raised in strategic planning efforts, and it is important they not be raised to an unreasonable level, for if they are, it can work against implementation of the strategic plan as well as future strategic planning efforts. Employee expectations must be kept consistent with the operating environment.

The benefits of strategic planning lie as much with engagement in the process as with the strategic plan itself. The questions the process raises, the interactions it compels, the thinking it requires, all have very positive, tangible consequences to an organization. It should also be understood that strategic planning is *not* simply a

technical venture. It is also political, especially for not-for-profit and public sector organizations.

The current political climate in the federal government provides a unique opportunity for federal land management agencies to come together and articulate a shared vision for management of federal lands. There is a great deal of commonality and complementarity in the mission and goals of these agencies. While there is commonality, there are also significant differences that need to be understood and appreciated. Separate land management agencies exist in the federal government for more than just historical reasons. Some real benefits can attend organizational diversity.

To the extent there was ever a meaningful direct linkage between national-level objectives and local-level program objectives or "output targets," that linkage has been weakened by the growing recognition that many of the most important resource values can be effectively protected only by managing on the basis of ecologically-delineated, landscape-scale areas that usually transcend a single ownership. Whether or not a federal agency can achieve its goals, for say, protecting water quality or conserving biological diversity, depends in large part upon what activities take place on adjacent lands managed by other public or private organizations and individuals. This is true whether the agency is managing its own lands (as with the Forest Service or the Bureau of Land Management), offering technical assistance to private landowners

(as with the Natural Resource Conservation Service), or attempting to influence land management through some combination of regulations and incentives (as with the Environmental Protection Agency or the Fish and Wildlife Service).

This growing interdependency calls for a far a higher level of cooperation and coordination than in the past--among federal agencies, between federal agencies and state/local/tribal governments, and among public agencies and private organizations and individuals. It suggests the need for greater "horizontal integration" among land managers and other stakeholders, as well as the "vertical integration" within a given organization described above.

Like local managers within the organization, individuals at other organizations can serve as an important source of information and experience for strategic planning, and their participation in the process may be key to their playing a complementary and supportive role in helping the organization meet strategic planning goals and objectives. Where other large organizations are involved, whether private corporations or other federal agencies, this coordination and cooperation can take place at several levels of organization, land manager to land manager, scientist to scientist, and CEO to CEO.

In this environment, decentralized decision making at the local level, consistent with the broad bounds of the mission, vision, strategies, and performance measures

developed organization-wide through the strategic planning process, becomes even more crucial to the effectiveness and success of the organization. Strategic planning no longer *drives* local decision making, but provides a *framework* to assure that the hundreds of decisions made daily by local managers throughout the organization each contribute to moving the organization collectively in the desired direction.

This de-emphasis on a command-and-control approach within an organization helps make local decision-making by federal land managers more consistent with and supportive of the de-emphasis on command-and-control approach on private lands. Long-term conservation and stewardship on private lands depends on a consistent, fair, and reliable system of land tenure and private property rights. Increased flexibility for local federal managers (especially in regulatory and technical assistance agencies) to emphasize voluntary, non-regulatory approaches to working with private landowners will increase the likelihood of effective cooperation and collaboration to achieve common resource conservation goals and objectives over larger geographic scales.

Conclusions

The ultimate goal of strategic planning is a dynamic, resilient, strategically-focused organization which watches for emerging issues, addresses these problems effectively and seizes opportunities as they arise. A key "audience" for strategic planning is the organization's

leaders at all levels. A thorough understanding of both the information contained in the assessment and the goals and strategies that constitute the plan are essential to leaders' "ownership" of the strategic planning process and their ability to carry out strategies effectively to accomplish the vision and goals that have been established.

The process of strategic planning is more important than the plan itself, which does not have to be voluminous to be sufficient. "Top-to-bottom" vertical integration in the development of both the assessment and the program strategies fosters collective organizational learning based on individual experimentation and adaptation, as well as providing local managers with a broad framework to guide decentralized decision-making. "Horizontal integration" of other federal agencies, state/local/tribal governments, and private organizations and individuals--from organizational leadership to field managers--is important for thorough, accurate assessments and can be essential for implementing the strategic vision of conserving nationally important resource values in a nation of diverse ownership objectives on intermingled public and private lands.

Strategic planning is, at its core, more a political than technical process. In a nation of diverse and continually evolving social values regarding natural resource conservation and environmental protection, accurate and up-to-date technical information is essential in moving toward a sustainable

state. But weighing of complementary and competing social values through open and democratic political processes is equally essential in terms of locating a pathway for the future that is economically viable, socially responsible, and ecologically sound.

The continuing evolution in the components and processes of strategic planning itself, suggest that successful strategic planning in the future will be defined and conducted very differently from the past. Approaches to strategic planning used previously by federal land management agencies such as the Forest Service, though arguably successful, will have to continue to adapt and evolve be useful to the Forest Service or to other federal agencies now developing their strategic plans under the requirements of GPRA. Key considerations in strategic planning by natural resource management organizations can be summarized as follows.

Trends Influencing the Environment for Strategic Planning

- The public is increasingly distrustful of government, especially the federal government, and questions its effectiveness in carrying out programs.
- The operating environment is an interactive one; the public expects to be consulted.
- Organizations in the public sector are being held to higher standards of

accountability, which must be incorporated into strategic planning.

Essential Concepts in Strategic Planning

- The goal of strategic planning is to facilitate the development of a dynamic, resilient organization that addresses problems effectively and seizes opportunities as they arise.
- Strategic planning has evolved from being a highly technical process dealing with large amounts of data to a process that directly addresses policy problems and issues and related social values.
- Effective strategic planning requires participation at all levels of an organization. The benefits of strategic planning lie more with engagement in the process and as a way of thinking than with the strategic plan itself.

Clarity of Vision

- A clear vision of the agency's mission and goals is a prerequisite for strategic planning, allowing the planning process to devise potential strategies by which the agency can realize its vision.
- In cases in which the mission and vision have become clouded by

conflicting legal and social mandates, strategic planning itself can be a useful process for helping agency leaders and constituents articulate goals and objectives.

Assessments

- A comprehensive information system is needed by a land management agency for all resources at various scales over time. It is needed for a variety of purposes, not just strategic planning, including monitoring to assess the efficacy of management decisions, for public relations purposes, and to show agency responsiveness to policy problems and issues.
- Strategic planning should be "data-supported," but not "data-driven". The strategic plan must be responsive to the "customers" of the organization.

Natural Resource Strategic Planning in the Future

- Rather than developing a strategy that fits an organization's current capabilities, the strategy should be directed toward building new capabilities to take advantage of future opportunities and to address

challenges both anticipated and unexpected; it should "stretch" the organization.

- Strategic planning must recognize and provide for uncertainty and risk in both resource assessments and plans.
- Strategic planning should not drive local decision making, but provide a framework for decentralized decision making within the broad bounds of the agency's mission, vision, strategies, and performance measures.
- Strategic planning is more a political than a technical process, and an open process is essential in developing and implementing a management strategy that is socially, economically, and ecologically sustainable.

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PINCHOT INSTITUTE FOR CONSERVATION

About the Pinchot Institute

The Pinchot Institute for Conservation is an independent, non-profit organization dedicated to leadership in conservation thought, policy, and action. The Pinchot Institute was dedicated in 1963 by President John F. Kennedy at Grey Towers National Historic Landmark in Milford, Pennsylvania, historic home of conservation leader Gifford Pinchot, to facilitate communication and closer cooperation among resource managers, scientists, policymakers, and the American public. The Institute continues Pinchot's legacy of conservation leadership as a center for policy development in support of sustainable forest management.

Programs and activities

- **Policy research and analysis.** The Pinchot Institute serves as a bridge between the scientific and policymaking communities in forest resource management. The Institute provides independent policy research and timely, objective analysis targeted to the current information needs of policymakers and resource managers.
- **Convening and facilitation.** The Institute serves as a convenor and facilitator, fostering collaborative approaches to resolving key issues in forest policy. The Institute brings together leaders in forest management, research, and education from federal and state agencies, universities, industry, and conservation organizations to address new challenges and discover new solutions for advancing sustainable forest management.
- **Leadership development.** Through its program on leadership in natural resource conservation, the Institute conducts research and provides training for resource management professionals and community leaders in participatory decision making and conservation leadership.

Current programs

Institutional and policy changes to implement sustainable forest management. Much of the effort to date in sustainable forestry has focused on policy development, with far less attention devoted to the mechanisms by which these policies will be implemented, or potentially thwarted. Policies for integrated approaches to resource management will make little difference on the ground until the appropriate organizational structures and administrative processes are developed. These include the development of processes for conservation-oriented strategic goal setting and performance measurement, and integrated resource management planning, budgeting and fiscal accountability. These considerations are complex and intensely politicized, and the Pinchot Institute can play a critical, constructive role through both independent analysis and facilitation.

Forest stewardship and sustainable rural development. The restoration and maintenance of forest ecosystems for multiple objectives requires a variety of continuing land treatments that can be the basis of stable employment and income in rural communities. There is a need for policies aimed specifically at facilitating the development of local capacity to carry out such land treatments through the kind of small entrepreneurial firms that characterize rural communities. The Pinchot Institute is working with policymakers, federal and state land management agencies and with a network of community-based rural development practitioners to identify and address key policy issues such as contracting, bonding requirements, capital financing, and training in the development of specific strategies to advance both forest stewardship and sustainable rural development.

Developing collaborative models of conservation leadership. The Pinchot Institute is committed to the development of effective natural resource conservation leadership among both beginning and mid-career professionals, in public agencies, private organizations, and conservation NGOs. The Pinchot Institute offers leadership workshops and executive development seminars in participatory decision models that are beginning to redefine the relationship between land management agencies and the communities they serve. The Institute's leadership development program is integrated with the training and conservation fellowship programs held at Grey Towers National Historic Landmark, primarily for mid-level managers in federal natural resource management agencies.

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