An April 1997 Government Accounting Office report (GAO/RCED-97-71) suggested that improving U.S. Forest Service decision-making is contingent on establishing long-term strategic goals that are based on clearly defined mission priorities. The following article reviews the 100-year history of the enabling legislation for national forest management and suggests the role of Congress and the American public in providing a national consensus about the optimum use and management of the national forests.

NATIONAL FORESTS and the PERFORMANCE of the ORGANIC ACT OF 1897

ast year marked the centennial anniversary of the Organic Act of 1897. It provided the first policy guidance for the management of the national forests (Forest Reserves before 1907) which totaled 38 million acres at that time. A hundred years later, in 1997, they were 192 million acres and made up almost

one-twelfth of the lands and waters of the United States. How well have those initial policy purposes and management guidance served the Nation and the national forests?

Today, we can safely say that the national forests remain resilient and responsive to management. Though their ecosystems are altered and old resource use and management challenges have given way to new ones, the value of national forests has increased and public preferences about how they should be managed have slowly, but dramatically changed. Taking account of their commercial value, amelioratory benefits, and amenity values to society; their benefits and services have never been greater than they are today. They are serving more people with greater value than ever before. Yet, today's debate about the proper use and management of the national forests appears to be as intense and controversial as the national debate surrounding their creation and

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management a century ago, or even more so. Indeed, how well has the Organic Act served the Nation and national forest management; what have been its strengths; what have been its shortfalls?

EMERGENCE OF THE ORGANIC ACT IN 1897

The Organic Act marked the culmination of several decades of discussion and debate at the national and regional levels about the proper disposition, use, and management of Public Domain forested lands. The dominant national policy emphasis during the latter half of the 19th Century was disposal of public lands for use, development, and settlement. By the 1890's, large portions of the public domain had been transferred to railroads, states, and individuals.

The debate about publicly managed forests fell into three broad themes. One advocated preservation or reservation of public forested lands with either no or restricted use. Another emphasized continuing the tradition of easy access or acquisition and unregulated, largely free use of the public lands and resources. A third theme focused on what may be viewed as a middleground of "wise use" through Federal reservation and management.

These issues and debates were aggravated by the passage of the Creative or Forest Reserve Act of 1891 which gave the President the authority to proclaim forest reserves, but made no provision for their use and management. Under the implementing regulations, notices were published in local newspapers and posted on Forest Reserve boundaries in 1894, stating that:

All persons are hereby warned not to settle upon, occupy, or use any of these lands for agricultural, mining, or other business purposes; nor to cut, remove, or use any of the timber, grass, or other natural products thereof, except under such regulations as may hereafter be prescribed.

Thus, the resources of the first national forest reserves were literally "off-limits and their resources . . . locked up." Among others, livestock graziers, the predominant users, were particularly infuriated by such restrictions and opposed the establishment of the reserves.

By September 1893, Presidents Harrison and Cleveland had proclaimed 17 forest reserves, totaling 18 million acres, but in that year President Cleveland decided to stop creating any more reserves until Congress could provide guidance for managing them. The McRae Bill (H.R. 119) addressing the use and management of the forest reserves was introduced in Congress in late 1893, but did not pass. No more reserves were established until 1897, when on February 22nd, as his term was expiring, President Cleveland proclaimed or expanded 13 more reserves, totaling 21 million acres-more than doubling the total area of Federal forest reserves. His action raised a new furor of western opposition to the new reserves and Congressional pressures on the new President, William McKinley, to rescind the proclamations. He did not!

The Organic Act emerged from this 1897 confrontation. It was enacted on June 4, 1897 with wording very similar to that

of the 1893 bill. It established the purposes of national forests and their management guidance with this statement:

No public forest reservation shall be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of the citizens of the United States; but it is not the purpose or intent of these provisions, or of the Act providing for such reservations, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forest purposes.

The Act further permitted the use of timber and stone, free of charge, by bona fide settlers, miners, residents, and prospectors for minerals, for firewood, fencing, buildings, mining, prospecting, and other domestic purposes. The Act also provided for the use of "all waters . . . for domestic, mining, milling or irrigation purposes under the laws of the State" and rights-of-way were granted to settlers for access to inholdings, wagon roads, irrigation canals, ditches, flumes, and reservoirs.

The original language of the Act also specifically directed that "dead, matured and large growth timber" could be harvested and sold "For the purpose of preserving the living and growing timber and promoting younger growth. . . ," but such timber had to be "marked and designated" and the harvest supervised by persons "not interested in the purchase and removal of such timber."

The Secretary of Agriculture (Secretary of the Interior before 1905) was also directed to protect the public forests against destruction by fire or depredation and make rules and regulations for their "occupancy and use and to preserve the forests thereon from destruction." This general provision delegated authority to permit other uses of national forests such as grazing, recreation, and wildlife consistent with the direction to "improve and protect" the forests.

THE LONG-TERM STRENGTH OF THE ORGANIC ACT

The Congress, through the Organic Act, encouraged the use of the national forests and their resources as it directed their protection and improvement. In doing so, it clearly tried to accommodate the wide range of user interests; an apparent political objective or accommodation. It also sought to maximize the use value of the public domain lands by excluding those "more valuable" for minerals and agricultural production. The Act defined the purposes for establishing national forest reserves only in the very broadest terms. It, likewise, gave the broadest authority and discretion to the Secretary of Agriculture and his delegated managers, the Forest Service (the Secretary of the Interior and the General Land Office before 1905) to develop rules and regulations for the occupancy and use of the national forest reserves. It set no specific limits on use or users, leaving that up to the managers of the forests. In these respects, the Organic Act seems to have been closely attuned to the national policy and the regional interests for settlement and development of the West.

Viewed from today's perspective on environmental quality

and sustainable ecosystems, the Organic Act's greatest strength was in its direction to "improve and protect the forest," particularly for maintaining favorable waterflows and a continuous supply of timber. Although these first guidelines were very broad, they contained specific policy direction that put national forest management on a pathway toward an ecological approach to ecosystem and resource management.

The Act actually anticipated that timber harvesting would be followed by regeneration and would promote younger forests and encourage timber growth. Over the years, the forest cover has been maintained, although its structure has been considerably altered. National forest annual timber growth, net including mortality, is now at its highest level, 3.3 billion cubic feet, compared to 2.1 billion in 1952, and much less in earlier decades. In the early decades when range grazing was the most widespread use of national forests, resource managers gave priority attention to rehabilitating the rangelands which had been badly damaged by severe and extended droughts and overgrazing at the end of the 19th and the beginning of the 20th Century.

Big game populations on national forests were at their lowest levels when the Organic Act was passed and in the early decades of national forest management. All big game species have generally increased as a result of major improvements in state game laws and management, and restocking and habitat improvements provided by national forest land managers. Hunting visitor day use rose from about 2 million in 1947 to 19 million in 1996. In response to changing public values during recent decades, particularly the emergence of the endangered species legislation, wildlife management on national forests has increased attention to nongame species. National forests have also generally sought to protect and improve fish habitats, especially in more recent decades. As a result, angler visitor day use on national forests rose from somewhat more than 2 million visitor days in 1947 to nearly 18 million in 1996.

Recreation use, including fishing and hunting, rose from a few million visitor days a year in the early years of the Organic Act to about 15 million by World War II. It then escalated spectacularly after the war, more rapidly than the exploding population growth, to 160 million in 1965 and 341 million visitor days in 1996. Visitor use diversified as much as it intensified. National forest managers were continually challenged to provide safe and sanitary facilities and adequate services for satisfactory visitor recreation experiences compatibly with other national forest uses. The wilderness concept for national forest use and enjoyment emerged in the 1920's and by 1941, the Forest Service had so designated 2.5 million acres. Today, there are 35 million acres of designated National Forest Wilderness, constituting 18 percent of all NFS lands.



Recreation use rose from a few million visitor days per year in the early years of the Organic Act to about 15 million by World War II. This photo depicts camping in July 1938 at the Grout Bay campsite developed under a mature Jeffrey Pine stand that also served as winter habitat for bald eagles, on the San Bernardino National Forest, California.



Demand for wood products dramatically increased after World War II. A view of patch cutting of Douglas-fir in the Iron Creek drainage on the Gifford Pinchot National Forest, Washington, 1949.

As early as the 1920's, National Forest System managers established Research Natural Areas (RNA) to serve as baseline areas for documenting the development of individual natural ecosystems and forest types. These would be used to evaluate the effects of national forest use and management on ecosystem processes under the Organic Act. The RNA concept emerged within the Ecological Society of America in 1917 to protect the habitats of rare plant and animal species. To that end the Society set up a work group that ultimately became The Nature Conservancy, a long-time cooperator with the NFS.

The ecological aspects of national forest management gained further attention in 1970, when Chief Edward Cliff enunciated to his regional foresters and station directors:

"I am convinced that with an ecosystem approach to multiple use management, our forests and rangelands can contribute to a better living for present and future generations . . ."

In 1992 the Forest Service formally adopted an ecosystem approach to managing national forests. Chief F. Dale Robertson announced it this way:

An ecological approach will be used to achieve the multiple use management of the national forests and grasslands. It means we must blend the needs of people and environmental values in such a way, that national forests and grasslands represent diverse, healthy, productive, and sustainable ecosystems.

In 1998, the Organic Act of 1897 remains on the books. Over the years, however, the Act has been greatly amended and supplemented by legislation and court adjudications which have directly affected the way that national forests are managed. The Multiple Use Sustained-Yield Act of 1960 (MUSYA) supplemented the specific purposes for which national forests are established to include outdoor recreation,

range, and wildlife and fisheries in addition to the watershed and timber purposes of the Organic Act. Sixteen years later, the National Forest Management Act of 1976, in response to a direct challenge to the timber harvesting provisions of the Organic Act, further defined the concepts of multiple use and sustained yield and provided more de-

tailed policies and procedures for national forest land management planning, albeit still consistent with the intent of both earlier acts. During the next two decades, the resulting forest plans became legal documents and the subject of both judicial review and court suits.

A LONG-TERM SHORTFALL?

During the first 48 years of the Organic Act, because resource demands were modest, there was little conflict between uses and users even though the uses often overlapped and adjoined. Rapid economic and population growth after World War II created extraordinary demands on the Nation's natural resource goods and services. The national forests quickly became a major source for expanding supply to meet these demands. National forest managers were immediately challenged to rebuild and expand access roads, facilities, equipment, and their workforces, which had been depleted by war production and military demands for personnel. They also had to address deferred maintenance and management that the war years had produced and to deal with the rapid resource growth demands that outran and continually taxed their managerial and workforce capabilities.

Nowhere were conflicting demands as visible as between wilderness interests and construction of roads. The Forest Service originally thought that the enactment of MUSYA was the solution. It provided policy direction for a nationally balanced mix of uses. But four years after the 1960 passage of MUSYA, the Wilderness Act withdrew the Forest Service's authority to declassify or reduce the size of wilderness-type areas. In the Act, Congress delegated unto itself the power to designate new wildernesses on national forests and other federal lands.

Did the rapidly rising level and growing diversity of national forest uses after World War II and the emergence of MUSYA, the Wilderness Act, and the NFMA reveal a shortfall



Managing for multiple uses on the Dale Ranger District on eastern Oregon's Umatilla National Forest, 1960.

in the Organic Act? One weakness often cited has been the lack of any specific criteria or guidelines for determining the use "combination that will best meet the needs of the American people." Although this policy for managing multiple uses did not become explicit until MUSYA, it was implicit in Gifford Pinchot's guideline for implementing the Organic Act: "the greatest good of the greatest number in the long run." The mix, amount, and location of the uses was largely left up to the Secretary of Agriculture and the Forest Service, and the demand for national forest use from the market place and the American people. These use demands became the strong driving force in the management of national forests.

The Forest Service used its decision authority to improve and protect the national forests and to decisively determine the mix, amount, and location of uses as they grew and diversified use-by-use, locale-by-locale, year-by-year, decade-after-decade. National forest managers recognized from the beginning, however, that national forest uses would "sometimes conflict a little" and had to be "made to fit with one another so that the machine would run smoothly as a whole." Early "Use Books" indicated that often one use would have to give way a little here and another a little there so that both could benefit "a great deal in the end." National forest managers worked with users, local communities, and regional interests to effectively use national forest resources in ways compatible with other

uses and with the capabilities of the ecosystems to supply them.

A corollary "weakness" of the Organic Act may be the lack of any goals or guidelines for what constituted the "proper" improvement and protection of the national forests beyond maintaining favorable conditions of waterflow, assuring a continuous supply of timber, and avoiding their destruction, particularly by fire. These determinations were likewise left to the professional knowledge, judgment, and discretion of national forest administrators and managers. But, they were also influenced by congressional appropriations and funding. Over the longer term, certain special interest groups, individual citizens, and the American public would take exception to national forest managers' discretion and decision-making and effect major changes in their direction through legislation, appeals, and court suits.

This apparent shortfall of the Organic Act, the lack of specific guidelines for determining the long-term optimum combination of uses or the optimum protection and improvement of the forests, may not necessarily have been a weakness. The Organic Act's broad discretionary decision authority may have provided managers with flexibility, particularly from a political viewpoint, to respond to the changing public demands and the growing level and diversity of national forest use. Managers found they also needed such

flexibility to deal with the immediate or short-term uncertainties and the longer-term changes in science, knowledge, technology, social values, and economic markets, especially with our limited ability to predict nature's responses to forest use and management.

It is difficult to think or imagine how such guidelines could be reliably expressed or written into the law for the long term, given the impossibility of envisioning conditions 50 to 100 years hence, with a growing and dynamic population, economy, society, and environment. The real shortfall may lie in the inability of our Nation's democratic processes to establish a consensus on what the long-term optimum combination for national forest use and management should be. Perhaps, we can only approach such an optimum through incremental and adaptive management—acre-by-acre, use-by-use, year-by-year, decade-after-decade—as our society grows and matures, social values evolve, and science and knowledge increase.

A NEW APPROACH TO A SOLUTION

In the face of mounting confrontation and the challenge of satisfying all the interests and all the new procedures, standards, and guidelines for national forest planning and management, the Forest Service, in 1992, adopted the ecosystem approach to managing multiple uses and benefits for the American people. Although, as yet, there are no widely accepted theories or practical guidelines for what constitutes ecosystem management, national forest managers understand the basic principles of the holistic ecological approach and are moving incrementally and adaptively toward its practice in the field. It will be as much a learning experience as a management experience, much as past national forest management has been for both the managers and the American people.

Perhaps the greater challenge is how to integrate the diverse public and private interests into an ecosystem approach to natural resource management. Such an approach must take into account the objectives of the many people and governments who own or manage extensive ecosystems surrounding national forests and the conditions of those ecosystems. The Forest Service has recently adopted a "collaborative stewardship" approach to meet this need. It is based on inventorying ecosystem conditions on national forests and other surrounding ownerships and jurisdictions, mutually sharing this information, and discussing national forest management issues in relation to resource conditions, objectives and management on surrounding properties. It seeks consensual guidance and approval for national forest management decision-making and decisions.

While the collaborative stewardship process does not guarantee a public consensus on national forest management decisions, it emulates legislative processes for making public policies and decisions among the many interests and values of a diverse citizenry. But it does not include the power of the voting process for deciding public issues. The final decision remains with the federal government. Despite public

participation and consensual agreement efforts with diverse publics and citizens, the decision-making process is likely to remain more or less contentious. Unsatisfied clients can seek a more favorable outcome for their interests, question national forest use and management judgments through appeals and court suits and by expressing their issues through the public media, to Congress and the Administration

CONCLUSION

One hundred years after the Organic Act, the national forests remain resilient and responsive to management. Although their management direction has changed a great deal since World War II, and especially since 1990, the uses remain much the same as they were when the Organic Act became law. Timber sales and harvests have been greatly reduced from an average level of about 11 billion board feet during the 1960's, 1970's, and 1980's to a current level of about 4 billion board feet, about the same as the harvest at the end of World War II. National forest land area available for timber harvest has dropped from 72 million acres in 1985 to 49 million acres in 1996. Generally, national forest management emphasis has shifted from maintaining ecosystems for production to maintaining and restoring ecosystems for their environmental services.

Public participation and the proliferation of contentious appeals and court suits on the use and management of national forests and many new environmental laws have accelerated National Forest System management along its pathway toward a more fully holistic ecological approach in sustaining resources and their ecosystems. The rate of progress, however, has been increasingly constrained in recent years by the need to reduce budget deficits, avoid excessive inflation and by the "reinvention" of government. Volunteers and the matching investments of partners in national forest management do much to supplement the federally funded efforts for managing national forests. Even though national forest benefits have never been greater, and use continues to grow, national forest management challenges and the problems of achieving public consensus have likewise never been greater.

The century of survival of the broad management guidelines of the Organic Act of 1897, as amended, suggests the long-term merit of the framework of the Organic Act. In fact, the major changes in the original Act have occurred largely in the amendment of specific management directives such as those for the marking and the harvesting of trees. Perhaps the greatest weakness in the national forest management setting lies in the lack of a national consensus about the optimum use and management of national forests, the diversity of user and public interests, and the nature of our democratic system and processes. A mutual understanding of this consideration within the community of interests in national forest use and management, together with a shared sense of responsibility, is essential for collaborative stewardship to work effectively.