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## Public management of federal forest land in the United States

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*An analysis of the management of federal forests in the United States and consideration of the potential benefits of adopting principles that have proved valuable in community forestry efforts in developing countries.*

Over the past several decades, agencies responsible for public forest management around the world have experienced increasing tension and conflicts with the societies they are intended to serve. Although these agencies are set in a diversity of political, social and environmental conditions, many share elements of an approach to forests and forest management based on principles developed in feudal, medieval Europe. The United States is no exception. Much of the turmoil and criticism experienced by these agencies results from an inability of this approach to forest management to balance national goals with the need to respond adequately to the needs of local communities and to the increasing expectations for participation that exist in many contemporary societies. Without local cooperation and public support, forest management agencies have found it difficult or impossible to accomplish their mandate to sustain forest ecosystems and increase forest productivity.

For a number of reasons, forest management agencies in many developing countries have already begun exploring alternative approaches emphasizing the participation of local communities in the management of government-owned forests and the establishment of mechanisms through which local communities share decision-making power and implementation responsibilities with a forest management agency. Under these approaches, the agency becomes a partner to local communities in forest management decision-making and implementation and the agency's relationship to the communities shifts from exercising authority to providing services. Although not a panacea, these approaches have often resulted in reduced conflict, increased public cooperation and support and the improved likelihood of sustaining forest ecosystems. Some of the key characteristics of successful efforts are presented in the [Box](#).

In the United States, however, a different approach has been adopted in response to a

perceived need to make forest management more socially responsive and to handle conflicts. The traditional forest management framework has been amended to include mechanisms for public input, but has not fundamentally altered the decision-making power and implementation responsibilities vested in the federal forestry agency - the Forest Service of the United States Department of Agriculture (USDA). This approach is typified by the incorporation of public involvement mechanisms into the Forest Service's planning process and by the establishment of public advisory boards for which the terms of reference and appointments are usually determined by the agency. Under this approach, the public may make suggestions about forest management but the agency does not relinquish final decision-making power and implementation responsibility. Notwithstanding large investments in such public involvement processes, there is little evidence that this approach has increased public confidence in the agencies or reduced conflict over forest management. In fact, the contrary appears to be true in many cases.

This article examines the history of management of federally owned forest land in the United States, particularly in relation to vacillating interest in and efforts to promote the participation of local communities. It concludes by suggesting that the Forest Service might benefit from the consideration and experimental adoption of community forestry principles similar to those already embraced by many developing countries.

## **HISTORY OF THE UNITED STATES' EXPERIENCE**

As in other former colonies, many of the fundamental concepts that shaped the political organization and management objectives for forests in the United States derive from forest tenure and management in feudal Europe. The major colonial policy directed towards forests was the Broad Arrow Policy, established in 1691 by the charter for the Province of Massachusetts Bay (Dana, 1956). Eventually extended to several other colonies, the Broad Arrow Policy embodied and expressed basic tenets of forest tenure and management in feudal Europe: that the state's rights to and interests in forests hold primacy over those of local people, and that the state's objectives for forest resources need not be determined by - and may run counter to - the interests of local people. The policy was immediately unpopular and proved unenforceable (Dana, 1956).

Following independence from Britain, the United States Government did not feel the need to establish forest conservation or management institutions for nearly a century. Forest resources were perceived as inexhaustible, indeed their abundance was regarded as an obstacle to agricultural and infrastructure development. Through expropriation from Native Americans and purchases from colonial powers, by the mid-1800s the federal government acquired about 571.4 million ha (over 1.4 billion acres) of public land in what is now the continental United States, over one-third of which was forested (Dana and Fairfax, 1980). Federal policy regarding public land was twofold: first, the physical removal of Native Americans; second, the disposition of land to states, corporations and individuals for settlement and rapid development.

By the 1870s, rapid and extensive logging and destruction of forest resources, particularly in the East and the Lake States, created substantial political support for resource conservation and led to the rise of a conservation movement that campaigned for the retention of natural resources, including forests, under public ownership. The United States established its first policy directed specifically at forests in 1891. Known as the Creative Act (26 Stat. 1103), it granted authority to the president to "reserve... public lands wholly or in part covered with timber or undergrowth... as public reservations...". Although the act did not specify the purpose of the reservations, by 1897 about 16 million ha (nearly 40 million acres) of public land had been set aside as forest reserves through presidential actions (Dana and Fairfax, 1980; Robbins, 1982).

The Organic Administration Act of 1897 (30 Stat. 34) defined the purposes of reserves as a blend of preservation, use and management: "to improve and protect the forest... for the purpose of securing favourable conditions of water flow, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States." In 1905, the forest reserves were placed under the federal Department of Agriculture and redesignated as national forests, and the Forest Service was established to administer the forests (Dana and Fairfax, 1980).

Over the past century, the system of national forests administered by the Forest Service has expanded to 176 forests. The national forests comprise widely varied ecological and social conditions - from rain forest to desert, and from wilderness to urban settings - and are used and valued by millions of people for a wide range of benefits.

But the fundamental approach to managing these forests, which vests the Forest Service with exclusive authority for national forest management, remains as it was established in the late 1800s. Over the past four decades, in spite of its best efforts, the Forest Service has experienced escalating conflict and eroding public confidence in its management of national forests.

## **NATIONAL FORESTS AND LOCAL COMMUNITIES**

Through establishing forest reserves and granting authority for their management to professionals in the service of the state, the United States adopted a European model for forest management. There was one substantial difference, however: on to the European paradigm for management of government-owned forest, American forestry grafted populist ideals. The Creative Act directed that forest reserves should be "managed for the people" (26 Stat. 1103; West, 1992). The Organic Act stated that forest reserves must be managed "to furnish a continuous supply of timber for the use and necessities of citizens of the United States" (30 Stat. 34). In 1905, a policy was established whereby, "in the management of each reserve local questions will be decided upon local grounds," but the same directive provided that "where conflicting interests must be reconciled, the question will always be decided from the standpoint of the greatest good of the greatest number in the long run" (Wilson, 1905).

Although not reflected in the record of the legislative debate (SAF, 1989), support for passage of the Creative and Organic Acts was in part a concern for communities, many of which had suffered from boom-and-bust economies created by the rapid logging and destruction of forests in the East and the Lake States (Schallau and Alston, 1987; Wear, Hyde and Daniels, 1989). The Organic Act also recognized the needs of local people and communities in its provisions for settlers' rights of access to privately owned land within forest reserves and for the use of national forest land for schoolhouses and churches.

Pinchot, the first chief of the Forest Service and principal architect of early United States forest policy, was clearly concerned with local communities. In a 1907 publication aimed at informing the public about national forests, he wrote:

"National Forests are made for and owned by the people. They should also be managed by the people. They are made, not to give the officers in charge of them a chance to work out theories, but to give the people who use them, and those who are affected by their use, a chance to work out their own best profit. This means that if National Forests are going to accomplish anything worth while [sic] the people must know all about them and must take a very active part in their management. The officers are paid by the people to act as their agents and to see that all the resources of the Forests are used in the best interest of everyone concerned" (Pinchot, 1907).

This was a vision of community forestry, motivated at least in part by a recognition that many local communities depend on national forest resources. Pinchot failed, however, to reconcile the incongruence between European-style forestry and his populist commitment to management by and for "the people". The conceptual assumptions and institutional models of European-style forestry were ill-adapted for encouraging participation or for responding to community needs. Modelled directly after the management of forest estates in Europe, the Forest Service's mission was to manage national forests - emphasizing the application of silviculture and other technical strategies aimed at the production of timber and other commodities - over which it had exclusive authority. The Forest Service did not establish mechanisms for public participation in national forest decision-making or for sharing decision-making with local communities and forest users. While policy encouraged the consideration of the interests of local people and local communities, managers of federal forest lands had no specific responsibilities or obligations to local communities, and local people did not share in decision-making for national forests. The Forest Service retained all formal decision-making authority in a model that might be termed benevolent technocracy.

## **COMMUNITY STABILITY AND SUSTAINED YIELD**

In 1908, a Forest Service investigation of the impact of "cut-out-and-get-out" logging on rural communities concluded that public ownership and sustained yield management were necessary to support community stability (Dana, 1918). Guided by a vision of many small sawmills scattered through the public forests supporting small communities (Clary, 1986), the Forest Service interpreted its role in promoting community stability as an obligation to provide local sawmills with many short-term, small-volume timber sales on a sustained yield basis. In Europe, the concept of sustained yield meant setting timber harvest equal to timber growth; it prevented overharvesting and achieved a stable timber flow from European forests that had long been under regulated cutting. A stable timber flow created, in turn, economic stability for forest-based communities, which in Europe were often independent political units with virtually no regional commercial trade (Waggener, 1977). The Forest Service believed that achieving sustained yield was the means to protect the forest resource and to provide community stability for forest-dependent communities, and adopted sustained yield as a major objective of national forest management.

Many national forests were dominated by old growth (trees older than maturity in a managed rotation), for which the application of the European definition of sustained yield would not efficiently establish a regulated condition and stable timber flow. By the early 1920s, the agency redefined sustained yield to allow annual harvests to equal annual growth plus an orderly liquidation of old growth (Parry, Vaux and Dennis, 1983). As a result, the Forest Service shifted from short-term, small-volume sales - which favoured small sawmills and provided a stable flow of timber - to long-term, large-volume sales - which favoured larger sawmills and allowed for greater fluctuations in timber flows. While the goal of sustained yield continued to guide national forest management, its application for achieving forest regulation overshadowed that for providing community stability.

The rapid harvesting of old growth in national forests increased the volume of timber available on the market at a time when timber markets were characterized by oversupply and depressed prices (Steen, 1976). In the late 1920s, facing a major collapse owing to an oversupply of timber, the timber industry wanted to constrain timber production and proposed redefining sustained yield from sustaining timber yields to sustaining forest industries (Clary, 1986):

"Sustained yield forest management consists for a given forest in limiting the average annual cut to the continuous production capacity. Such regulation of cutting is most advantageously applied to a unit of forest area sufficiently large to supply continuously an efficient-sized plant operating at or near capacity

converting the forest products into saleable material" (Mason, 1927).

In 1944, the Sustained Yield Forest Management Act (58 Stat. 132) was passed to "promote the stability of forest industries, of employment, of communities and of taxable forest wealth through continuous supplies of timber". The act "established a philosophical framework that rested on a neat equation: sustained yield ensures community stability, which (it implies) ensures the happiness and well-being of timber-dependent towns and the people in them". However, the act was clearly designed to constrain timber production for the timber industry's benefit (Robbins, 1989) and did not address community development, social well-being or the political process in relation to forest management.

The act authorized the Forest Service to establish two types of sustained yield unit. One type, cooperative units, would comprise both private and public forest land, with management coordinated through cooperative agreements. A second type, federal units, would comprise only public forest land, and was intended to serve communities in which the forest industry was wholly dependent on federal timber. In both types of unit, timber would be managed using sustained yield and sold to a single local sawmill designated by the Forest Service. Unfortunately, both types of sustained yield unit proved to be failures. Only one cooperative unit was ever established (The Shelton Cooperative Sustained Yield Unit, in 1946, amid a storm of public controversy - see Clary, 1987; Mason, 1947), and only five federal units were created, "each a perpetual source of frustration and complaint" (Clary, 1987) (for an illustration of the inability of the sustained yield unit approach to meet local community needs, see the [Box](#), The Vallecitos Federal Sustained Yield Unit, a case of the frustrating marriage of conventional forestry and local communities).

## **FROM COMMUNITY STABILITY TO PUBLIC CONSULTATION**

Following the bruising experiences in the late 1940s with its efforts to implement sustained yield units, the Forest Service retreated from trying to manage forests for the benefit of local communities and shifted its aim back to ensuring the permanence of forests (Josephson, 1976; Schallau and Alston, 1987). The Multiple-Use, Sustained-Yield Act of 1960 (74 Stat. 215) contained no mention of community stability; rather, it directed the Forest Service to base management on resource productivity and market conditions (Robbins, 1989) and to manage national forest resources "so that they are utilized in the combination that will best meet the needs of the American people... without impairment of the productivity of the land".

By the late 1960s and early 1970s, an expanding environmental community became increasingly outspoken and critical about national forest management. In 1973, it won a court injunction against clear-cutting on the Monongahela National Forest in West Virginia. This injunction raised the possibility of a court-ordered prohibition of clear-cutting in all national forests, a spectre with such tremendous ramifications for national forest management that it led to the passage of the National Forest Management Act (NFMA) of 1976 (Schallau and Alston, 1987). The NFMA directed the Forest Service to establish mechanisms for public involvement in national forest planning. In the NFMA, public involvement is primarily viewed as a mechanism to involve environmentalists in forest planning and avoid future "Monongahelas", although it also provides an avenue for other users to express their concerns.

The NFMA shifted the Forest Service's aim in relation to local communities from community stability to public involvement in national forest planning. In theory, expanded mechanisms for public involvement should enable local communities - as well as other public constituencies - to assert greater influence and control over national forest management. This, in turn, should result in increased cooperation, improved confidence and reduced conflict between these constituencies and the Forest Service over national forest management. In practice, however, conflict over national forest management continues unabated, which suggests that the approach to public involvement is not proving very effective.

The approach to public involvement adopted under the NFMA has been characterized as consultative rather than participatory (Behan, 1988a; 1988b) because it does not fundamentally alter the Forest Service's position as a high rung of expert decision-makers with exclusive authority over national forests. Under the NFMA, the Forest Service is required to inform the public on its plans, the public is invited to respond and the Forest Service must hear the public response. However, the Forest Service does not have to incorporate ideas raised by the public into its plans and decisions. More important, it does not have to establish forest management mechanisms by which the public, including local communities, can participate beyond commenting on the Forest Service's plans or seeking redress through the courts if the Forest Service does not follow its specified planning process or planned actions. While some national forests have established ad hoc advisory committees, these committees have no binding authority over the Forest Service's decisions. Formal mechanisms to provide local communities with decision-making authority - such as governing boards or management teams with local community representation - do not exist.

Although reduced in importance, community stability and its corollary, industrial stability, have not completely disappeared from Forest Service management. In 1963, the Forest Service adopted an even-flow timber policy "to facilitate the stabilization of communities" (CFR 221.3 (a)(3)) which was then incorporated into the NFMA (Parry, Vaux and Dennis, 1983). In the 1980s, the Forest Service used community stability as a justification for below-cost timber sales (Hyde and Daniels, 1987). However, while community stability was once a primary objective of national forest management, it is now a justification for Forest Service policies or a component of the social analysis required of the Forest Service's proposals. And although it has been redefined to mean a community's "capacity to handle change without major hardships or disruptions" (USDA Forest Service, 1988, sec. 30.5), the Forest Service has not formulated specific guidelines for managing national forests to avoid hardships or disruptions in communities. Thus, the Forest Service still has not operationally defined its fundamental relationship or responsibilities to local communities or found an acceptable mechanism for integrating local and national interests and social and technical criteria.

## **CONCLUSION**

In the United States, the Forest Service continues to manage national forests in a manner similar to that applied to aristocratic forest estates in feudal Europe. This approach conflicts with ideals of and trends towards participation, posing a question of whether it remains viable in contemporary society. Although laudable in principle, the public involvement mechanisms adopted by the Forest Service have not altered the basic relationship between the agency and public constituencies: constituencies may offer suggestions but the agency retains exclusive decision-making power over national forest management. Continuing conflict between the Forest Service and public constituencies over national forest management suggests that these public involvement mechanisms are not effective and that changes in technical objectives - for example, substituting ecosystem management for multiple-use management - will shift but not reduce the conflict in which the agency finds itself. A more fundamental change in approach - a new political form which enables national forest management to become truly participatory - is needed.

Since its creation a century ago, the Forest Service has recognized the effects of forest management on local communities and has rhetorically embraced populist ideals to serve people and communities. But the strategies adopted by the Forest Service for meeting local community needs - community stability through sustained yield and public involvement in national forest planning - have failed to achieve this goal. The failure results from the Forest Service's adoption of a "benevolent technocracy" relationship with local communities in which it tries to manage forests and forest-related development for them rather than establishing responsive and responsible partnerships with them.

Given the range of interest and concerns which must be integrated for "ideal" management of government forests, certain levels of conflict and tension are unavoidable. However, the participatory approach embodied in community forestry is an alternative that has proved successful in other countries in mitigating these conflicts. This approach might provide the USDA Forest Service with avenues to ease the chronic conflict resulting from its current management approach, and facilitate the establishment of a productive relationship and dialogue between the agency and local communities. The Forest Service should analyse the community forestry experiences of the developing countries and consider adopting their guiding principles on a pilot basis to learn whether they could help to improve public forest management in the United States. U

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