

Managing National Forests for Non-Timber Forest Products

Chapter 6

Conclusions and Implications

Table of Contents

6.	Conclusions and Implications.....	1
6.1	Non-Timber Forest Products and National Forest Management	1
6.2	Issues that Affect National Forest Management for NTFPs.....	2
6.3	Forest Managers’ Intentions to Include NTFPs in Forest Management.....	3
6.4	Implications, Ramifications and Recommendations.....	4
6.5	Research: Current and Future	5
6.6	References.....	7

6. Conclusions and Implications

The organization of this chapter follows the three objectives that were addressed by this research. Conclusions regarding the first objective –the extent that NTFPs are addressed in national forest management – are discussed in the first section. The following section presents conclusions regarding the major issues that affect forest management for these products. The conclusions regarding the third objective – assess forest managers’ intentions to include NTFPs in management plans – are presented in the third section (6.3). Recommendations, based on this research, concerning the implications and ramifications of alternative strategies are presented in the next section. Finally, current and future research needs are addressed.

6.1 Non-Timber Forest Products and National Forest Management

The current research examined the potential for the active management for NTFPs, which includes inventory and monitoring the resources, developing standards, guidelines and prescriptions, as well as implementing mechanisms to charge fair market value. In general, non-timber forest products were not widely addressed in forest management plans. But their inclusion in the forest plan revisions is encouraging. Less than 25 percent (7 out of 31) of the forest management plans in eastern United States address NTFP to any extent. Six of the seven are in the Eastern Region (Region 9). The most notable efforts to include NTFPs in the revisions are the National Forests of Florida, the Croatan National Forest in North Carolina, and the Chequamegon/Nicolet National Forests in Wisconsin. Perhaps, one reason for this was that an individual within the Forest Service identified NTFP management as an issue that needed attention.

The extent of coverage of NTFPs in strategic documents and legislation suggests they should receive more management attention. The 1995 Resource Planning Assessment (RPA 1995) identifies the potential to strengthen the economies of rural communities with non-timber forest products. A draft national strategy for NTFPs deals with the products generically (USDA Forest Service 1999). Section 339 of the Appropriations Act of 2000 (H.R. 2466 1999) directs the Forest Service to establish a pilot program that develops and tests mechanisms to charge fair market value for the products and return a portion of the revenues to the local units, and to implement a program to ensure sustainable harvests.

The Forest Service Directive System (USDA Forest Service 2000) includes many of the elements of the new pilot program. Direction is provided to local units to establish systems to value the products and to charge fair market value. Units are directed to set permit prices at 20 percent of wholesale value, and to adjust that price depending on local conditions. In general, there is sufficient and adequate policy direction for local units to develop proactive management programs for NTFPs. They simply lack the information and knowledge to assign accurate market value and silvicultural treatments to manage populations sustainably.

Unfortunately, the Forest Service does not have a clearly articulated NTFP management program. Perhaps more inhibiting is that Forest Service managers do not have a clear understanding of how to deal with NTFPs. There is no clear, nor unified, approach to managing for these products. There is a perception that management is not consistent across districts,

forests, or regions. For the most part, management plans lack the standards and guidelines, and the prescriptions needed to uniformly incorporate these products.

6.2 Issues that Affect National Forest Management for NTFPs

Perhaps the greatest issue that must be addressed is that managers do not perceive that the lack of NTFP management is a problem. Forest managers do not feel that collection of NTFPs from public forests is having a significant ecological or economic impact. This is a fundamental need that must be addressed to improve management for NTFPs. Although some forest managers feel that collection is having a negative ecological impact, a general perception is that the impact is localized and not widespread enough for the agency to act on. Fortunately, some managers are beginning to recognize that the collection of these plants may have an ecological impact on overall forests health, as well as a socio-economic impact on local communities. These progressive thinking professionals are motivating the agency to begin examining management alternatives. But, at the current level of interest and commitment by the Forest Service, there is no way of knowing if we are sustaining the NTFP resources.

Though addressing public issues is required in forest management planning, the forest managers do not perceive that NTFP management is a significant public concern. One major issue that affects management for NTFPs is the lack of a vocal and visible constituency to advocate improved management. There is no relevant public interest group or organization that promote management for these products. There are no unions, no coops, and no industry associations that represent NTFP collectors. Building this type of representation may be difficult. The social and culture dynamics are diverse and changing rapidly. In some cases, migrant workers are being used to harvest products. In other cases, collectors may not want representation. For some people, NTFP collection and trade is used to supply cash to support short-term needs, such as Christmas gifts or to replace major appliances. For other collectors, NTFPs are a spiritual experience with little direct economic benefit. Many collectors are rural people whose ancestors gathered NTFPs from the local forests. To fully embrace and truly represent the community, the social and cultural diversity of the collectors must be fully appreciated, considered, respected, and incorporated into the management planning process. This will require investing in more social, socio-economic and ethnographic research.

Without a visible and vocal constituency that advocates management for NTFPs, the impetus must necessarily come from within the U.S. Forest Service. But the agency lacks the financial and political support to manage these valuable resources. Funding for national forest management has steadily declined over the last two decades. There is no "line item" in the budgets specifically for non-timber forest products. Further, the agency lacks flexibility regarding how funds can be used to manage the national forests. Faced with strict accounting procedures and financial requirements, forest managers do not have the flexibility to address emerging issues. Even if NTFPs were identified as an issue, forest managers would not have the leeway to redirect funds to manage for these products. Without a Congressionally supported mandate to manage for NTFPs, efforts to manage for these products will be ineffective and inefficient.

Any effort by the Forest Service to manage for NTFPs will be hampered by a lack of technical information and expertise. The agency lacks the skills and knowledge to make decisions based on sound scientific knowledge. The forestry profession, and the Forest Service, has more than 100 years of data and research on managing forests for trees. The socio-economic aspects of the timber, minerals, recreation and wilderness, water, fish and wildlife, and range programs are well understood. But a similar level of scientific knowledge does not exist concerning management of the NTFPs resources. Very little is known about the population biology of most forest-harvested herbs and ground covers. No inventories have been made of the resources or of the volumes removed. To date, very little effort has been made to identify and find solutions to the issues that affect management of NTFPs. Without this knowledge sustainable NTFP management will be difficult to achieve.

The execution and enforcement of current regulations seriously impedes management. There is a general perception that regulations across districts, forests, and regions are inconsistent. To eliminate this perception will require that all units work together under similar guidelines. Over the last decade, there has been a steady decline in support for law enforcement. There are fewer people to enforce the few existing NTFP regulations. A continued decline in support of enforcement of the regulation does not bode well for improved management. Action can be taken to overcome this obstacle. For example, a common approach could be developed through community-based strategic planning for NTFPs. Also, current law enforcement capacity could be improved through training and continuing education. Further improvement would be realized by increasing collaboration with other law enforcement agencies, especially the National Parks Service.

6.3 Forest Managers' Intentions to Include NTFPs in Forest Management

Determining what should be included in forest management plans is particularly challenging with so many public interest groups competing to have their issues adequately addressed. Since the first management plans were created, public involvement in forest management decision-making has increased tremendously. Public interest groups now scrutinize all forest management activities. Management decisions are often appealed in the courts, and increasingly lawsuits are being brought against the Forest Service.

The attitudes and perceptions of forest managers at all levels (district, forest, region, and national) are critical to getting NTFPs included in management planning. However, little research has focused on forest managers' attitudes toward critical issues. Their attitudes and perceptions may provide valuable insight into constraints and opportunities that affect management efforts. As a group, forest managers of the eastern United States do not feel strongly one-way or the other concerning NTFP management. Interestingly, managers in Region 9 have a more positive attitude toward management for NTFPs, possibly due to a more positive experience with these products through the management plans.

Compared to the other three management levels, district level managers had the least positive attitude toward NTFP management. One reason for this may be that increased management for NTFPs will have the greatest impact on daily operations of district level managers. These managers would be required to issue more permits and to increase monitoring and inventory

activities. District level managers are already suffering from increasing demand for more management programs with continually decreasing support for these activities.

Overall, forest managers at all levels perceive that NTFP management is not an issue of public concern. Though still relatively in the middle of the scale, forest level managers had a less than positive perception about the need to manage for NTFPs. This may be a reflection of the local market environment of which forest level managers are an integral part. Perhaps the people who influence forest level managers are less inclined toward management for NTFPs. Because NTFP management is not perceived as an issue of public concern there is little reason to feel that management is needed. Further, forest managers are overwhelmed with “more important” issues. If NTFPs were viewed as a significant natural resource management issue, surely the intention to manage for these resources would be greater.

This research showed that forest managers with a strong interest in management for wildlife habitat, wilderness, or recreation have a more positive attitude toward NTFP management than those with an interest in more traditional forest (timber-based) management. Management strategies advocated by these professionals may tend to promote NTFP preservation over NTFP resource utilization. But a strategy that only embraces preservation will fail to meet a Forest Service goal of improving economic conditions in rural communities.

6.4 Implications, Ramifications and Recommendations

The implications of this research suggest two alternative courses of action. The Forest Service is faced with, fundamentally, two options. First, the agency could continue to accept the status quo “management” activities. Unfortunately, with the exception of some progressive management units, the extent of NTFP management in the U.S. Forest Service is merely the issuance of free and fee-use permits. As the only “management” strategy, this course of action may not be sustainable, as it provides no means to determine and monitor the ecological and economic impact of collection activities.

The other alternative is to take a proactive approach to managing for NTFPs. A proactive management approach would require developing a community of stakeholders to work toward a common vision for the sustainable management for NTFPs. Such a strategy would entail inventory and monitoring of the resources, the setting and regulation of collection limits, and development and use of silvicultural treatments to maintain and enhance production. The agency would need to develop standards and guidelines, and prescriptions for managing the NTFP resources. Further, a proactive approach would entail implementing mechanisms to charge and retrieve a portion of the fair market value. To truly understand the full implications of NTFP activities will require broadening the scope of management beyond jurisdictional boundaries. This will require regional, national and international collaboration. It will also require developing the potential of NTFPs as alternative forest-based income opportunities on private non-industrial forestlands (Hammett and Chamberlain 1998). Forest and region level market channel descriptions, similar to Greene’s (1998) research, would help to quantify the scope of collection activities. A proactive approach will require an increase in commitment and resources well beyond current levels.

If the second alternative is the preferred choice, the Forest Service is at a juncture in the development of a NTFP management program. The Forest Service could either further restrict collection, or it could begin to actively manage for these products. One alternative course of action is to place a moratorium on collection, until the agency can address some of the issues (e.g. the lack of inventory and monitoring protocols). This has happened for American ginseng in Arkansas, and is being considered by the national forests of southern Appalachia. Though a moratorium may be necessary, it shifts responsibility and burden from management to law enforcement. With the current and projected level of commitment, law enforcement will not be able to respond sufficiently. Further, this approach will have negative impact on local collectors and communities. A moratorium will not stop the collection of NTFPs from national forests. It will only make collection illegal and criminals out of the collectors.

A preferred alternative may be to take an approach that reaches out to, and involves the community of stakeholders in managing these resources. Working with the community, the Forest Service could develop management strategies that allow regulated collection that is monitored, and sustainable. By embracing a community forestry approach to managing NTFPs, the Forest Service could help ensure the conservation of the cultural heritage, as well as the biological resources. This proactive management strategy would help to improve community relationships through active and dynamic dialogue.

Whichever course of action the Forest Service takes, it will need to nurture Congressional support to institutionalize NTFP management on national forests. This will require demonstrating that collection activities have economic and ecological impact. It will entail building the awareness of policy makers that NTFPs are an important resource. But, a legislated and financed mandate will ensure that these resources are managed. Sustainable forest management of NTFP resources will remain an elusive goal until they are fully recognized and managed as renewable natural resources.

6.5 Research: Current and Future

The current research used a variety of methods to examine different aspects of NTFP management. The research approach and methods used have strengths and limitations that could hinder or promote further research. The content analysis, which is a well-accepted method in some disciplines, could have been expanded to provide more in-depth analysis of how NTFPs were covered. Case studies provide a means to examine programs in different locations, but they only provide a “snap-shot” of activities. I found that the use of the Internet could increase the efficiency of administering a survey and reduce the potential for data entry errors. When properly introduced and monitored it can be an efficient way of collecting data from a widespread audience.

The results of the attitudinal survey were comparable to other studies. The Likert scale, used to estimate attitude, perception and behavior intention, proved difficult to interpret. For example, does a score of 4.0 (the mid-point) on a scale of 1 (strongly disagree) to 7 (strongly agree) indicate ambivalence? The unexplained variation in the estimated model suggests that some other variables may be factors in determining behavior intention. Several possible factors include

budget constraints, lack of authority or policy direction, or lack of expertise. These were beyond the scope of this research, but could be the focus of future research.

Lessons learned from this study have potential to improve national forest management planning for non-timber products. The approach could be used to improve the understanding of how individuals and stakeholders feel about managing for NTFPs. Of particular interest would be to explore the attitudes of the influential groups, identified in this research, toward NTFP management. The two groups that were perceived by forest managers to be more inclined to advocate management of NTFPs may actually have been diametrically opposed in their management philosophies. Collectors may be more inclined to advocate more utilization than environmental groups. Many environmental groups, on the other hand, are often opposed to any extraction of natural resources from the national forests. Follow-up research could collect data to help national forest managers assure that NTFPs are not an issue of public concern.

The approach used in the current study also could be applied to other populations when studying other natural resource related issues. For example, understanding the attitudes and perceptions of the public toward current forest management activities could prove enlightening. With a better understanding of how the public feels about new and emerging issues, such as NTFPs, the Forest Service may be able to identify obstacles that could affect overall forest management.

To date, little investment has been made in NTFP management. Research is needed to learn more about all aspects of NTFP cultivation, silviculture, marketing, and culture. Building on the knowledge gained through the current study, four strategic research focal areas are identified. First, regional trend analysis at the wholesale, retail and secondary processing level will provide insight into markets and demand for these products. Second, ethnographic and demographic research focused on the collectors and other stakeholders will improve the understanding of the people who are involved in the collection, trade and use of these products. Third, research focused on the socio-economic aspects will help to define the value of these products to local communities. Finally, research is needed to develop the potential of NTFPs as alternative forest-based income opportunities (Hammett and Chamberlain 1998). The knowledge gained from analysis in these focal areas could prove invaluable to the Forest Service in managing for non-timber forest products.

6.6 References

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