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Non Timber Forest Products: Considerations for Tribal Forestry

What's good for cultural survival is also good for forest health, and what's good for forest health is also good for cultural survival. Dennis Martinez 1995.

The term non-timber forest product (NTFP)ⁱ refers to commercialⁱⁱ and commercially viable botanical forest species and tree parts not used as timber products. Examples of commonly extracted products in North America include beargrass, cedar bark, moss, edible mushrooms, ginseng, maple syrup, pine cones, fir boughs, huckleberries and pinyon seeds or pine nuts. Such products are either wild or cultivated and removed from ecosystems ranging from unmanaged pristine forests to tree plantations to non-forest environments where trees occur (e.g., urban streets, alley crops on farms). NTFP does not mean traditionallyⁱⁱⁱ gathered botanical forest species. Some traditionally gathered species, and species collected by newer non-commercial gathering practices, may be or become NTFPs.

It's important to recognize that both non-commercial and commercial gatherers collect non-timber forest species that have many non-market based values. These include cultural values such as spiritual roles and identity (e.g., basket making), household economic values such as food, medicine, and building materials, and the value to a healthy forest ecology.

Overlapping cultural traditions, commercial and non-commercial gathering dynamics, and growing demands for natural medicines are representative of what is happening in the non-timber forest product sector. If you go to a supermarket these days and browse the pharmaceutical section, you will find a variety of packaged herbal remedies made from medicinal species traditionally gathered and used by tribes. Some of these, like cascara bark (*Frangula purshiana*), have been in the market place for decades, but others, like goldenseal (*Hydrastis canadensis*), have more recently seen widespread commercialism and consumer demand. At one time or another, all cultures around the world relied on local plants for part of their healing. Today, cultures that still rely on plants often encounter increasing competition for traditional resources from an expanding global marketplace.

For some human groups, like most Euro-Americans, local healing practices and gathering traditions have given way to modern medicine. The herbal products seen on store shelves today typically represent a return to "natural" medicines by Euro-Americans. In smaller, community grocery stores selling local organic and natural foods, these herbal products are probably made locally by the people who gather the herbs. In the larger supermarkets the products seem to represent a trend by pharmaceutical companies to expand into the growing holistic health market. Their products are derived from NTFPs that may be wild in origin and far removed from the harvest place and process and harvester. Where wild species have domesticated counterparts,

companies are likely to opt for cultivation to save costs and provide a more stable supply than what is typically possible with wild species.

NTFPs have become a multibillion dollar forest-based economy worldwide (von Hagen et al. 1996). The U.S. market for herbal products alone is estimated from 600 million (Robbins 1999) to as high as 2.5 billion (von Hagen and Fight 1999). It is not hard to imagine the enormous economic potential when hundreds of other NTFPs are factored in, many of which have only begun to have market demand. Though a few non-timber forest product industries in the U.S. date back to the 1930s and earlier (e.g., maple syrup and ginseng in the east, floral greens and cascara in the northwest), such economic figures are in spite of the fact that modern forestry has rarely actively managed to maintain or increase NTFP production. In fact just the opposite has usually occurred, considering the widespread use of herbicides and slash burning that was common in the recent past. In contrast, some Native American tribes were known to actively manage, often through controlled burning, for huckleberry and other important subsistence foods.

Over the last couple of decades, a multitude of economic development and research programs have looked at the potential economic, ecological and sociocultural benefits of NTFP management throughout the world. Coupled with declining timber harvesting in the U.S., this has led federal, state, and some private landowners to more seriously consider the potential gains of more active NTFP management. The thinking is such that “with the broadening commercial potential of a greater number of forest species, managing for biodiversity as a sound investment strategy may be more widely considered” (Vance 1995).

Though the benefits are not well understood or mutually agreed upon, what is clear is that NTFPs are going to become increasingly important to U.S. forest-based economies. Though gathering rights have always been an important issue for most tribes, the expansion of NTFP industries has accelerated the urgency that these industries be sensitive and accountable to Native American reservation laws and off-reservation rights and uses of traditionally gathered forest resources. Many tribal reservations are experiencing a rise in theft of commercially valuable traditionally gathered resources (e.g., beargrass). In some cases, illegal harvesting has caused long-term damage or depletion to sacred gathering areas. Theft puts tribal enforcement with small budgets in the difficult and sometimes impossible situation of protecting the resource. For some tribes it may be possible to provide permits to non-members for harvesting in non-sensitive areas as a way of building positive relationships with legitimate harvesters and increasing watchful eyes in the forest.

Many tribes have reserved rights for gathering traditional resources off-reservation through treaties, government to government contracts, and other agreements (Goodman 2000). For other tribes and Indian people without such contracts, but who have maintained gathering practices in traditional areas, there may be legal backing for gathering practices as customary claims (Goodman 2000). To establish customary claims it may be necessary to record oral histories and collect any tribal or scholarly writing on gathering practices. Off-reservation reserved rights and customary claims present challenges to land managers in how to accommodate multiple use and protect traditional gathering areas. Crucial to the process will be more explicit co-management

relationships between land managers and tribes and involvement at some level of the commercial NTFP industry.

An example of a government-to-government arrangement for off-reservation gathering rights is Andrew Fisher's description of the 1932 Handshake Agreement (2000).

The agreement, originally temporary, was between the Yakima Nation and the U.S. Forest Service regarding lands where huckleberries had been gathered every August for 1,000s of years. Federal agencies in general and the Forest Service in particular have rarely expressed much sympathy for Indian subsistence practices or the concept of sacred geography. Forest rangers set aside some three thousand acres of public land for the Indians' exclusive use. This small parcel seems insignificant compared to the 10,800,000 acres (29,000 square miles) ceded to the government by the Yakama Nation alone, but the importance of the Forest Service's decision should not be overlooked. The Handshake Agreement guaranteed the Indians access to some of the most productive huckleberry fields in the world and gave them a measure of privacy in which to carry on their traditions. Despite persistent problems with resource conservation and non-Indian trespassing, the agreement continues to afford Yakama pickers a degree of protection unknown on other national forests. By maintaining an open dialogue with local Forest Service officials, the Indians have turned a temporary compromise into an enduring affirmation of their treaty right to gather berries in "usual and accustomed places."

Two other major issues that arise for tribes with NTFP commercialization are biopiracy and theft of traditional knowledge. People living and interacting as part of an ecosystem often have highly developed knowledge about the processes and elements within it (Anderson 1996). However, "... a lot of tribal people simply do not want to see any important cultural plant or animal made into a commodity or areas where plants shouldn't be harvested or commercialized. Other plants, however, may provide an economic base. A lot of variation exists across and between tribes" (Martinez 1995).^{iv}

Bioprospecting is a term that refers to the collection of biological specimens from nature for laboratory testing. In the past twenty years, economic botanists have increasingly bioprospected in tropical rainforests for potential drugs for the western pharmacopoeia. This practice is occurring more frequently in U.S. temperate forests. Taxol, from Pacific Yew bark, is an example of a bioprospected species with drug properties for fighting ovarian cancer. Increasingly, indigenous peoples are being asked to share their traditional knowledge of the medicinal properties of drugs—knowledge that has been gained over generations of living and observing their environments. This is not necessarily a bad thing to do if brings a direct benefit the tribe and doesn't end up harming traditional practices. However, when no compensation has been negotiated with the tribe, then in effect it is a theft of intellectual property. When a corporation or other entity negotiates a deal with a land manager that results in extraction of resources from traditional gathering grounds without permission of the tribe with gathering rights for the area, it is in effect biopiracy. To some degree, the Forest Service or BLM issuing of permits to harvesters without adequately protecting traditional or sacred gathering grounds is in effect enabling biopiracy.

Steps to Consider:

- *Control Over Knowledge* – At the core of tribes' ability to protect intellectual property rights is the ability to control knowledge and how it is shared with non-tribal members. To a large degree this will require the ability of tribes to reach internal consensus and member

cooperation. A number of tribes, science organizations (e.g., Society for Applied Anthropology), and non-governmental organizations have developed rigorous ethics guidelines for tribal interaction that specifically address intellectual property right matters.

- *Education on Importance of Respecting Traditional Gathering* – Few land managers, commercial buyers, or others in commercial industries are aware of traditional gathering practices and rights need written materials and other education approaches to more clearly understand the tribal position.
- *Enforcement of Traditional Tribal Gathering* – Tribal and non-tribal resource officers can work together and with local buyers and harvesters to encourage compliance with tribal laws. For highly vulnerable areas, limiting access may be a viable solution.
- *Active Management of NTFPs*. Active management of tribal forests for non timber forest products outside of traditional gathering areas could provide easier and more easily monitored alternatives for commercial and non-commercial harvesters to traditional gathering grounds. Management could be for increasing wild species or through agroforestry systems (cultivation). Such active management could potentially occur when commodification wouldn't violate tribal rules or ethics regarding culturally sensitive or sacred species.

To conclude, I would like to re-emphasize the importance of respecting cultural traditions. These traditions are often embedded in the historical identity of cultural groups (who they are, what they do). NTFP commercialization within and outside of tribes could be a great thing for improving forest health and building sustainable economies based on a diversity of commodities instead of just a few. Yet both tribal and non-tribal peoples will be losing a part of who they are if commercialization is allowed to run roughshod over trading, subsistence, and non-commercial cultural traditions. These traditions typically are based on fairly low extraction levels, but the place and the quality can be a crucial part of the gathering process. In United States the temperate, boreal and subtropical forests are large and bountiful. There is plenty to go around if they are managed wisely. Expanding NTFP economies could be a great contribution to forest management, but they must always be second to cultural traditions.

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ⁱ Synonyms include special forest products, minor forest products, secondary forest products, alternative forest products, and non-wood forest products.

ⁱⁱ Commercial in this context refers market-oriented cash economy and not non-cash trade as traditionally practiced by many tribes.

ⁱⁱⁱ “Traditional” is used in this paper to refer to Native American Traditions. However, it is important to recognize that other user groups have gathering traditions handed down through generations, sometimes brought from foreign soil, sometimes learned from Native Americans, and sometimes newly created within a lineage of knowledge. “To be labeled “traditional” becomes a valuable asset in defending rights to resources...” (Love and Jones 1995).

^{iv} Many tribes have active programs to work in collaboration with Western scientists to catalogue and compare traditional knowledge cross-culturally. (Johnson 1992).