

Indicator 14. Annual Removal of Nontimber Forest Products (e.g., Fur Bearers, Berries, Mushrooms, Game) Compared to the Level Determined To Be Sustainable

What Is the Indicator and Why Is It Important?

This indicator shows removal of nontimber forest products (NTFPs). As demand for these products grows, it becomes more important to monitor the products' flow and the effect of their removal on the viability of current and future forest ecosystems. Information is not currently available to compare the growth and removals of NTFPs to evaluate sustainable levels.

What Does the Indicator Show?

NTFPs include medicinal plants, food and forage species, floral and horticultural species, resins and oils, materials used for arts and crafts, and game animals and fur bearers. The popular use of medicinal plants has experienced an expansion in the past 20 years, exceeding the use of any other nontimber native flora. Demand for medicinal plants has prompted protective measures. Foods from native species provide a very small share of the food species consumed by Americans, but are often culturally significant and are becoming increasingly popular in restaurants. Native plants used for decorating homes and workplaces are as diverse as the decorative forms invented. A tremendous variety of native plant, lichen, and moss species supplies commercial foliage, stems, branches, fruits, and other vegetation used in the winter holiday season and in the year-round floral industry. The use of NTFPs in arts and crafts is an integral part of innumerable traditions in the United States. Resins and oil products derived from native plant species fall into several broad categories. Industrial chemists use aromatic

plant compounds in air fresheners, bath products, diffusers, hair- and skin-care products, inhalants, massage oils, and perfumes. "Big game" primarily denotes large mammal species taken for sport or subsistence. Over the past 20 years, harvests of common big-game species have generally paralleled population trends; the number of hunters and the time devoted to hunting has been increasing. The number of small-game hunters has declined at a nearly constant rate since the mid-1970s. From 1975 to 1996, there was also a steady decline in the number of migratory bird hunters. The national trend in fur harvests has declined from a peak of 20 million pelts in 1980 to a low of 3 million pelts in 1991. Despite the lack of national quantified information across many NTFP categories, removal of NTFPs from forest ecosystems is a significant and very important activity to many Americans for recreational, commercial, subsistence, and cultural uses.

Annual or periodic harvest of NTFPs is largely undocumented, particularly on private forest land, although it is understood that such activity has affected forest ecosystems. An immediate need exists for compiling existing life history information on key products and for developing life histories where information is missing; for choosing several key products based on ecological sensitivity or economic/social importance; and for developing pilot studies to measure biologically and socially sustainable harvest levels using the concepts of population biology, social science, economics, and ecology.