

## Criterion 6. Maintenance and Enhancement of Long-Term Multiple Socioeconomic Benefits To Meet the Needs of Societies

National Report on Sustainable Forests—2010

### Indicator 6.31.

#### Value of Exports and Imports of Nonwood Products

##### What is the indicator and why is it important?

For many countries, international trade is a significant factor in commercial use of forests. Exports are, in some cases, a significant source of value for regional and national economies. Imports may either supplement or be a substitute for production from domestic sources. The values and volumes of wood product exports and imports are important because of the increasing importance of global markets in determining prices in domestic markets, the sustainable use of domestic resources, and the profitability of domestic industries.

##### What does the indicator show, and what has changed since 2003?

The value of 12 types of exported nonwood forest products (fig. 31-1) increased from \$332 to \$457 million between 2003 and 2007 (all values adjusted for inflation and reported in 2005 dollars). The value of imports of the same products decreased from \$757 to \$650 million between 2003 and 2007. Export values may be underestimated as discussed below.

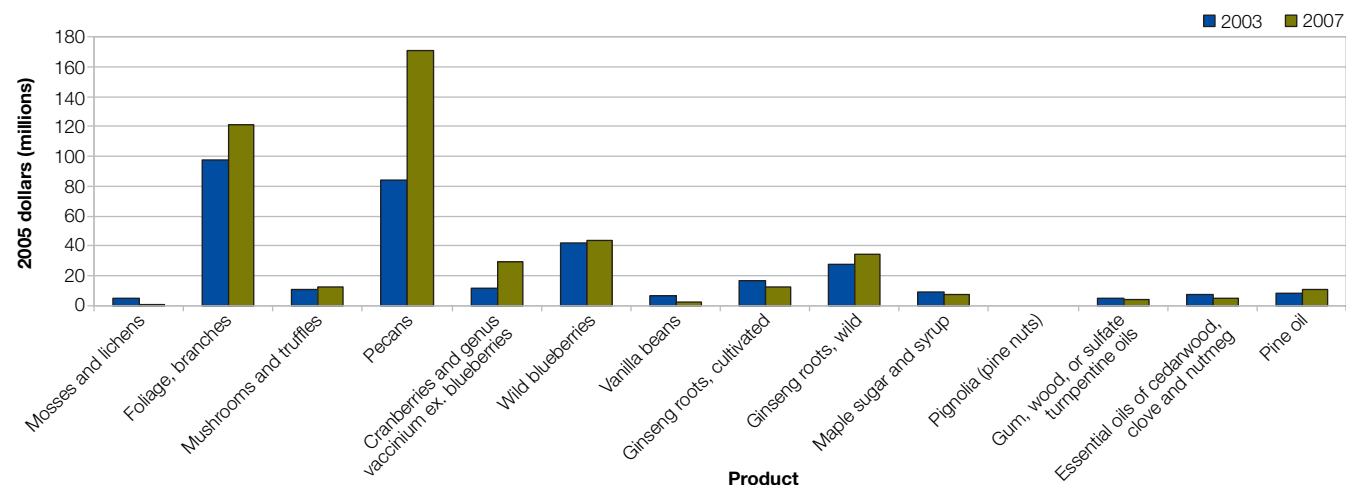
The nonwood forest products included in U.S. export data have long traditions of trade. Products that have become important in export markets recently include wild edible fungi, mosses, and lichens. For some species a distinction in data exists between wild and cultivated species. Pecans and cranberries are mostly

cultivated. Blueberries and ginseng maintain separate trade markets for wild and cultivated crops, with the wild crop being smaller and more valuable per unit of production. Some exports such as American matsutake (*Tricholoma magnivelare*), appear to arise more from international demand than from U.S. marketing efforts.

All internationally traded goods are classified with a six-digit Harmonized Trade Code (HTC) number. Each Nation can then add four additional digits to track goods that are of special interest to that country. National export data can be used to help assess domestic harvest and total trade for products where little other data are available.

For some products additional local export data exist that differ notably from national export data. The harvest and trade figures for moss are a case in point. For moss harvests from the Pacific Northwest and the Appalachian regions there is a difference between moss harvests reflected in land management agency permit data, and national moss and lichen export data. The Forest Service and Bureau of Land Management issued permits for moss from 1997 to 2002 that averaged about 100,442 air-dry kg per year, with average annual permit revenues of about \$19,650. An examination of export permit data from 1998 to 2003 showed 4.6 to 18.4 million air-dry kg per year were exported, with a value between \$6 and \$165 million per

**Figure 31-1.** Value of exports of selected nonwood forest products, 2003 and 2007 (millions of 2005 dollars).



Sources: U.S. Department of Commerce, Bureau of Census

year. These values are considerably higher than the national export values of \$4.2 million for 2003 and \$0.8 million for 2007. In fact, the upper bound of the export value estimate (\$165 million) would place moss at the top of the list of export earners as opposed to the relatively minor position it holds in the current export statistics.

The discrepancies and range in the estimates illustrate how little is known about the moss trade. Policymakers and land managers lack critical information about inventories and response to disturbances on which to base resource management decisions. This lack of knowledge has been noted about other wild-harvested nonwood products traded in commercial markets, such as floral greens and mushrooms.

Figures 31-1 and 31-2 show the value of nonwood forest products exported from and imported to the U.S. exports listed in this report focus on nonwood products from species native to North America. Included are native species growing wild in forests, forest openings, and woodlands, products from select native species grown agriculturally, and select products from native species growing in nonforest environments, whether wild or domesticated. Some trade codes are so broad that it is impossible to describe trade in specific species. For example, fresh foliage and branches (HTC 0604.91.0000) covers many species, wild and domesticated, from forests and agricultural lands. Some codes may include products that are grown in agroforestry environments, intentionally sown but allowed to grow in wild simulated environments, such as wild ginseng (HTC 1211.20.0040). A few codes are exclusive to wild-harvested nonwood forest products, such as fresh wild blueberries (HTC 0810.40.0024).

The U.S. mushroom trade data since 2002 has split out the most commonly domesticated mushrooms, including the white button mushroom common in grocery stores (*Agaricus* spp.),

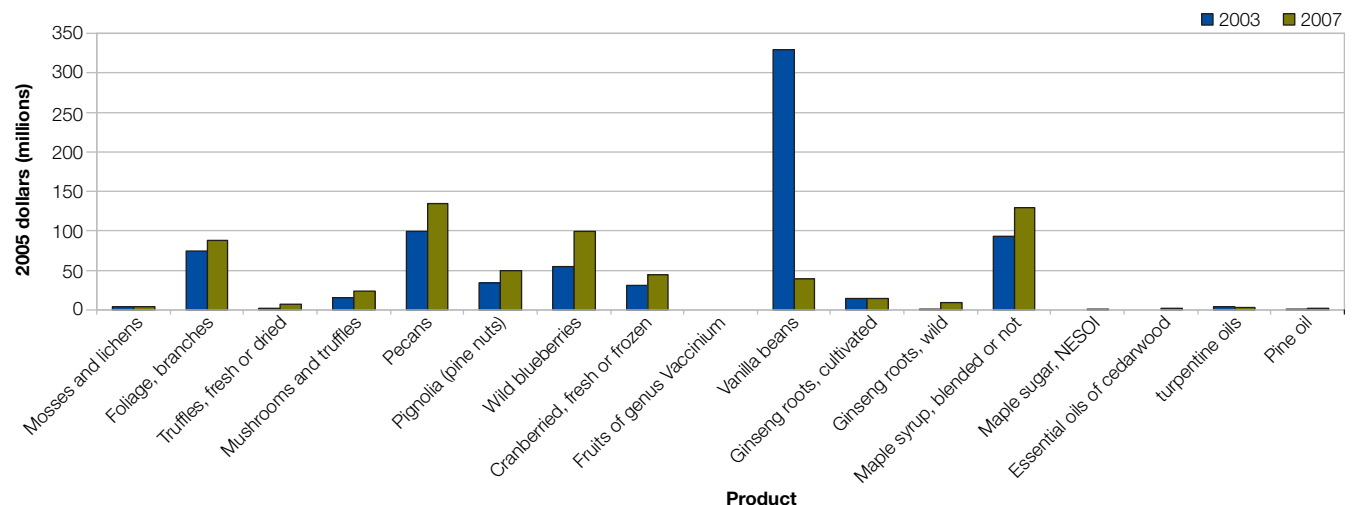
wood ears (*Auricularia* spp.), and jelly fungus (*Tremella* spp.). Mushroom trade data in Figures 31-1 and 31-2 do not include these domesticated species, and can be assumed to be highly influenced by amounts of wild-harvested fungi such as morels (*Morchella* spp.), chanterelles (*Cantharellus* spp.), American matsutake (*Tricholoma magivelare*), and various truffle species.

The top four exported nonwood forest products, in both 2003 and in 2007 were (1) pecans, (2) foliage and branches, (3) wild blueberries, and (4) wild ginseng. Values for all four increased from 2003 to 2007.

The top four imported nonwood forest products in 2003 were (1) vanilla beans, (2) pecans, (3) maple syrup products, and (4) foliage and branches. The top four imports in 2007 were (1) pecans, (2) maple syrup products, (3) wild blueberries, and (4) foliage and branches. Vanilla beans come primarily from Madagascar, and imports from that country dropped precipitously since cyclone Hudda in 2003 devastated Madagascar's vanilla-growing regions. Imports for the other top imports increased between 2003 and 2007.

Commerce in nonwood forest products has been small but regionally important for the U.S. economy for generations. International trade in species native to North America are influenced by a number of factors, including globalization of labor markets, movement of processing to countries with competitive advantages in processing, and changes in taste and style. When one country experiences an event that puts it at a disadvantage, such as the cyclone in 2003 that affected Madagascar's vanilla bean growing areas, other regions or countries will hurry to fill the gap, particularly if prices rise because of the shortage. International trade in nonwood forest products likewise help determine sustainable forest practices. Trade information must be used along with other data, such as estimates of domestic consumption, to assess effects on regions or countries.

**Figure 31-2.** Value of imports of selected nonwood forest products, 2003 and 2007 (millions of 2005 dollars).



Sources: U.S. Department of Commerce, Bureau of Census